

Appendix 10.2

Ground Investigations Ireland Sandford Park Environmental Assessment Report June 2020



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Ground Investigations Ireland

Sandford Park

Environmental Assessment Report

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1.0 Preamble

Ground Investigations Ireland (GII) was appointed by DBFL Consulting Engineers, on behalf of Ardstone Homes to, carry out an Environmental Assessment for a proposed development at Sandford Park, Rathmines Co. Dublin. All site investigation works were carried out under the supervision of a GII Geo-Environmental Engineer. The site investigation works were completed in between January & June 2020.

2.0 Purpose & Scope

It is understood that as part of the proposed development there will be an excavation to accommodate the construction of foundations, services, pavements, roadways and a basement and as such the material which may be excavated and removed from site needs to be assessed in terms of waste disposal outlets. The waste classification was carried in parallel with a wider geotechnical site investigation. GII understand that the proposed end use of the site will be residential.

The purpose of the environmental assessment was as follows.

- Assess the site in terms of historical use and environmental setting;
- Classification, in terms of waste management and final disposal outlets, of material that may require disposal following excavation during the construction phase;
- Groundwater quality assessment;
- Suitability for any material left on site for the proposed use following development; and
- Assess the materials suitability in terms of subsoil quality and potential environmental impact for removal from site as a by-product.

The scope of the work undertaken to facilitate the waste classification exercise included the following:

- Boring of fourteen (14 No.) window sample boreholes;
- Excavation of 9 (9 No.) trial pits;
- Boring of twelve (12 No.) cable percussion boreholes;
- Collection of subsoil and groundwater samples for chemical analysis;
- Environmental laboratory testing;
- Waste classification;
- Assessment of subsoil quality against human health Generic Assessment Criteria (GAC); and
- By-product suitability assessment.

The additional scope of the geotechnical investigation included the following:

- Drilling of six (6 No.) rotary core boreholes;
- Excavation of seven (7 No.) foundation pits to determine existing foundation details;
- Carry out (3 No.) soakaways to determine a soil infiltration value to BRE digest 365;
- Carry out (6 No.) dynamic probes to determine soil strength/density characteristics;
- Carry out nine (9 No.) Plate bearing tests;
- Installation of five (5 No.) groundwater monitoring wells; and
- Geotechnical Laboratory testing.

The geotechnical site investigation is discussed in the GII Site Investigation Report.

3.0 Limitations

GII has prepared this report for the sole use of Ardstone. No other warranty, express or implied, is made as to the professional advice included in this report or other services provided by GII.

The conclusions and recommendations contained in this report are based upon information provided by others and the assumption that all relevant information has been provided by those bodies from whom it has been requested. Information obtained from third parties has not been independently verified by GII, unless otherwise stated in this report.

This report has been prepared in line with best industry standards and within the project's budgetary and time constraints. The methodology adopted and the sources of information used by GII in providing its services are outlined in this report.

The work described was undertaken between January and June 2020, this report is based on the conditions encountered and the information available during that period. The scope of this Report and the services are accordingly factually limited by these circumstances.

Site investigations locations were selected by the consultant engineer.

GII disclaim any undertaking or obligation to advise any person of any change in any matter affecting the Report, which may come or be brought to GII's attention after the date of the Report.

The conclusions presented in this report represent GII's best professional judgement based on review of site conditions observed during any site visit and the relevant information available at the time of writing. The opinions and conclusions presented are valid only to the extent that the information provided was accurate and complete.

The investigation was focused on a broad assessment of the subsoil quality across the site. The assessment did not extend to the identification of asbestos containing materials associated with any on-site structures or ground gases.

The waste classification exercise is reflective of and applicable to the ground conditions on site at the time of the site investigation and sampling. Alterations to the ground conditions or any further excavations carried out on site following the investigation are not reflected in this report.

4.0 Site Location and Layout

The site is located to the south of Sandford Road, Ranelagh, Dublin 6 (Figure 1 Appendix 1). At the time of the assessment the site was an open parcel of land which was covered with grasses, shrubs and trees with the Jesuit order's Milltown Park campus to the south of the site. Tarmacadam surfacing occupies a portion of the site to the north of the campus. The surrounding land use at time of the assessment was residential.

5.0 Site History

GII reviewed the aerial photographs and historical maps maintained by the Ordnance Survey of Ireland (OSI) and the google imagery records. These included the 6-inch maps that were produced between 1829 and 1842, the 25-inch maps that were produced between 1888 and 1913 and the 6-inch Cassini Maps that were produced between the 1830's and 1930's. The site is undeveloped on all maps with the exception of the Jesuit order's Milltown Park campus which is indicated on all maps at the location of the present-day campus.

Based on a review of the OSI and Google Imagery aerial photograph records the site has been in its current state of developments since at least 1995. The tarmacadam area to the north of the campus appears to have been in use between at least 2011 to present day..

6.0 Environmental Setting

Details of the environmental setting are outlined in Table 1. Data relating to site topography, hydrology, geology, hydrogeology and ecology of the area have been obtained from resources held by the Environmental Protection Agency (EPA), the Geological Survey of Ireland (GSI), OSI, National Parks and Wildlife Service (NPWS), the Water Framework Directive (Water Matters) website and the Office of Public Works (OPW) Flood Maps Viewer. All relevant environmental setting data is presented in Figures 5 to 11 in Appendix 1.

Table 1 Environmental Setting

Environmental Feature	Relevant Details
<i>Topography</i>	The site is relatively level with the regional topography sloping to the north east.
<i>Hydrology & Catchment</i>	<u>Surface Water Courses:</u> The closest surface water feature is the River Dodder which is located approximately 1km to the south east of the site. The site is situated within the Dodder Lower Surface Water Body Catchment (IE_EA_09_587). The surface water report indicates the status of the water body is 'Poor (Appendix 2). The risks for the catchment are diffuse source of contamination.
<i>Geology</i>	<u>Quaternary Geology:</u>

Environmental Feature	Relevant Details
	<p>The GSI Quaternary Geology map classifies the subsoil underlying the site as Till derived from limestone (TLs).</p> <p>Based on the site investigation works completed between January and March 2020 the site is underlain by Till.</p> <p><u>Bedrock Geology:</u></p> <p>The bedrock underlying the site is the Lucan Formation which is comprised of dark limestone and shale.</p> <p><u>Karst Features:</u></p> <p>There are no recorded karst features within 15km of the site.</p>
Hydrogeology	<p><u>Aquifer Classification:</u></p> <p>The Lucan Formation has been classified by the GSI as a Locally Important Aquifer which is moderately productive in local zones (LI).</p> <p>The Eastern River Basin District (ERBD) Management Plan identifies that the groundwater body (GWB) beneath the site is part of the Dublin Urban Groundwater Body (IE_EA_G_005). The groundwater body report indicates the status of the water body is 'Good' (Appendix 2).</p> <p><u>Aquifer Vulnerability:</u></p> <p>The GSI have developed a system that ranks an aquifer in terms of the intrinsic geological and hydrogeological characteristics that determine the ease with which that aquifer may be contaminated by human activities. The GSI have used this system assigned a "vulnerability" category to each aquifer nationwide. The vulnerability of groundwater depends on:</p> <ul style="list-style-type: none"> ▪ The time of travel of infiltrating water (and contaminants); ▪ The relative quantity of contaminants that can reach the groundwater; and ▪ The contaminant attenuation capacity of the geological materials through which the water and contaminants infiltrate. <p>The depth of subsoil and the subsoil type overlying the aquifer are directly linked to the vulnerability. The GSI vulnerability map indicates that the vulnerability at the site is low.</p> <p><u>Groundwater Flow Direction:</u></p> <p>The groundwater flow direction is assumed to reflect the regional topography and be to the north east.</p>

Environmental Feature	Relevant Details
	<p><u>Well Search:</u></p> <p>A review of the GSI groundwater well database indicates that there are no recorded wells within 1km of the site.</p>
Flood Risk	<p>The Office of Public Works (OPW) has produced flood risk maps that identify areas that may be susceptible to flooding during extreme events. The flood maps are predictive flood maps, as they provide predicted flood extent and other information for a design flood event that has an estimated probability of occurrence rather than information of floods that have occurred in the past. The maps identify the risk from fluvial and coastal flooding. The OPW rates risk in terms of %. These percentages are linked to return events or chance of occurrence in any given year:</p> <ul style="list-style-type: none"> ▪ 10% - 1 in 10 chance in any given year; ▪ 1% - 1 in 100 chance in any given year; and ▪ 0.1% - 1 in 1,000 chance in any given year. <p>They are also commonly referred to in terms of a return period (e.g., the 100-year flood event), although it should be understood that this does not mean the length of time that will elapse between two such events occurring, as, although unlikely, two or more very severe events may occur within a very short space of time. Based on the review of the OPW maps the site is low risk for fluvial flooding.</p>
Radon	<p>A review of the EPA national radon map was carried out. The radon map is broken into 10km² grids. Each grid is ranked based on the percentage of dwellings within that grid where radon is present at levels greater than 200 Becquerel per metre cubed (Bq/m³). The radon map has five categories: <1 %, 1 to 5 %, 5 to 10 %, 10 to 20 % and greater than 20 %. The subject site is located within a grid where between 1% and 5% of the residences will have radon levels greater than 200Bq/m³, making it low to moderate risk for radon.</p>
Natura 2000 Sites	<p>A review of the National Parks and Wildlife Services (NPWS) databases indicates that the closest protected sites are the South Dublin Bay Area of Conservation (site code 001209) and the South Dublin Bay and River Tolka Estuary Special Protection Area (site code 004024) which is located approximately 2.5km to the east of the site.</p>

7.0 Subsurface Exploration

7.1. General

During the ground investigation a programme of intrusive investigation specified by the Consulting Engineer was undertaken to determine the sub surface conditions at the proposed site. Regular sampling and in-situ testing was undertaken in the exploratory holes to facilitate the geotechnical descriptions and to enable laboratory testing to be carried out on the soil samples recovered during excavation and drilling.

The procedures used in this site investigation are in accordance with Eurocode 7 Part 2: Ground Investigation and testing (ISEN 1997 – 2:2007) and B.S. 5930:2015.

7.1. Window Sampling

The window sampling was carried out at the locations shown in Figure 12 using a Dando Terrier/Tecop Tec 10 percussion drilling rig. The window sampling consists of a 1m long steel tube with a cutting edge and an internal plastic liner which is mechanically driven into the ground utilising a 50kg weight falling a height of 500mm. Upon completion of the 1m sample, the tube is withdrawn and the plastic liner removed and sealed for logging and sub sampling by a Geotechnical Engineer/Engineering Geologist. The tube is replaced in the borehole and a subsequent 1m sample can be recovered. Occasionally outer casing or a reduced diameter tube is utilised to enable the window sample to progress in difficult drilling conditions. Geotechnical or environmental soil samples can be recovered from each of the liners following logging. The window sample records are provided in Appendix 3 of this Report.

7.2. Trial Pits

The trial pits were excavated using a 7.5 tonne excavator at the locations shown in Figure 12. The locations were checked using a CAT scan to minimise the potential for encountering services during the excavation. The trial pits were sampled, logged and photographed by a Geotechnical Engineer/Engineering Geologist prior to backfilling with arisings. Notes were made of any services, inclusions, pit stability, groundwater encountered and the characteristics of the strata encountered and are presented on the trial pit logs which are provided in Appendix 4 of this Report.

7.3. Cable Percussion Boreholes

The Cable Percussion Boreholes were drilled, at the locations shown on Figure 12, using a Dando 2000 drilling rig with regular in-situ testing and sampling undertaken to facilitate the production of geotechnical logs and laboratory testing.

The standard method of boring in soil for site investigation is known as the Cable Percussion method. It consists of using a Shell in non cohesive soils and a clay cutter in cohesive soils, both operated on a wire cable. Very hard soils, boulders and other hard obstructions are broken up by chiselling and the fragments removed with the Shell. Where ground conditions made it necessary, the borehole was lined with 200mm diameter steel casing. While the use of the Cable Percussion method of boring gives the maximum data on soil conditions, some mixing of laminated soil is inevitable. For this reason, thin lenses of granular

material may not be noticed. Disturbed samples were taken from the boring tools at suitable depths, so that there is a representative sample at the top of each change in stratum and thereafter at regular intervals down the borehole until the next stratum was encountered. The disturbed samples were then sealed and sent to the laboratory where they were visually examined to confirm the description of the relevant strata. Standard Penetration Tests were carried out in the boreholes. The results of these tests, together with the depths at which the tests were taken are shown on the accompanying borehole records. The test consists of a thick wall sampler tube, 50mm external diameter, being driven into the soil by a monkey weighing 63.5kg and with a free drop of 760mm. For gravels and glacial till the driving shoe was replaced by a solid 60° cone. The Standard Penetration Test number referred to as the 'N' value is the number of blows required to drive the tube 300mm, after an initial penetration of 150mm. The number gives a guide to the consistency of the soil and can also be used to estimate the relative strength/density at the depth of the test and also to estimate the bearing capacity and compressibility of the soil. The cable percussion borehole logs are provided in Appendix 5 of this Report.

8.0 Ground Conditions

8.1. General

The ground conditions encountered during the investigation are summarised below with reference to insitu and laboratory test results. The full details of the strata encountered during the ground investigation are provided in the exploratory hole logs included in the appendices of this report. For full geotechnical descriptions of the ground conditions refer to the geotechnical site investigation report referenced in Section 2.0.

The sequence of strata encountered was consistent across the site and generally comprised;

- Topsoil/Surfacing
- Made Ground
- Cohesive Deposits
- Granular Deposits

SURFACING: Tarmac was encountered at the locations WS-05, 08 & 12 and BH-11 to a depth of 0.08m BGL.

TOPSOIL: Topsoil was encountered in the remainder of the exploratory holes and was present to a maximum depth of 0.4m BGL.

MADE GROUND: Made Ground deposits were encountered at the several locations. The depth of the made ground ranged from 0.08m to 0.6m BGL. These made ground deposits were described generally as *slightly sandy gravelly Clay with redbrick, mortar and charcoal fragments*.

COHESIVE DEPOSITS: Cohesive deposits were encountered beneath the Made Ground and were described typically as *light brown slightly sandy gravelly CLAY with occasional subangular to subrounded*

cobbles. The secondary sand and gravel constituents varied across the site and with depth, with granular lenses occasionally present in the glacial till matrix. The strength of the cohesive deposits typically increased with depth and was firm to stiff or stiff below 1.5m BGL in the majority of the exploratory holes. These deposits had some, occasional or frequent cobble content where noted on the exploratory hole logs.

9.0 Groundwater Quality

Groundwater monitoring wells were installed in BH02, BH03, BH07, BH09 and BH11 upon the completion of the boreholes. This was to enable sampling and the determination of the equilibrium groundwater level as well as enabling the collection of groundwater samples. The typical groundwater installation consists of a 50mm HDPE slotted pipe with a pea gravel response zone and bentonite seal installed to the Engineers specification. The installation details are provided on the exploratory hole logs in the appendices of this Report. Groundwater samples were collected from the wells installed in BH02, BH03, BH07, BH09 and BH11 on the 9th June 2020 by a GII Geo-Environmental Engineer.

The groundwater level in each well was recorded using a Geotechnical Instruments water level probe after which, the well was purged to remove the stagnant water in the well and surrounding gravel pack. Purging is necessary to ensure that the groundwater parameters measured are representative of the formation and not the stagnant water in the monitoring well or surrounding gravel filter.

9.1. Field Observations

No evidence of contamination was noted during the sampling of the groundwater wells. Groundwater field parameters were measured in situ using calibrated hand probes. Measurement included pH, electrical conductivity, temperature and redox potential (ORP). The recorded field data are summarised in Table 2.

Table 2 Groundwater Field Measurements

Sample ID	Sample Date	pH (pH Units)	Electrical Conductivity (mS/cm)	Temperature (Celsius)	Redox Potential (mV)	Odour	Colour
BH-02	09-06-2020	7.69	0.75	11.3	12.2	Organic	Grey
BH-03	09-06-2020	8.46	0.41	11.7	-30	Organic	Grey
BH-07	09-06-2020	7.86	0.53	11.9	97	Organic	Grey
BH-09	09-06-2020	7.89	0.71	12.2	56	Organic	Brown
BH-11	09-06-2020	8.54	0.47	12.0	117	Organic	Brown

9.2. Laboratory Analysis

The laboratory analysis undertaken on the samples collected from the boreholes included for dissolved arsenic, boron, cadmium, copper, chromium, cyanide, lead, mercury, nickel, manganese and zinc, aliphatic and aromatic petroleum hydrocarbons, polycyclic aromatic hydrocarbons (PAH), methyl tert butyl ether (MTBE), benzene toluene ethylbenzene and toluene (BTEX), total phenols, pH, electrical conductivity, nitrate, chloride, sulphate, ammonia and potassium. The parameter range was based on the site history and the need to establish a comprehensive environmental baseline for the groundwater quality for the site.

The laboratory testing was completed by Element Materials Technology in the UK; EMT is a UKAS accredited laboratory. The full laboratory reports are included in Appendix 6. The analytical methodologies are all ISO/CEN approved or equivalent.

9.3. Laboratory Results

The full laboratory test report is presented in Appendix 6 and the results are summarised in Tables 3 to 5. The tables include Interim Guideline Values (IGV) published by the EPA and the Groundwater Threshold Values (GTV) set out in the European Communities Environmental Objectives (Groundwater) Regulations (S.I. 9 of 2010).

The IGVs are not statutory but were developed to assist in the assessment of impacts on groundwater quality. The IGVs are based on, but are more conservative than, the Drinking Water quality standards. GTVs have only been established for core indicator parameters. To ensure a comprehensive assessment of the groundwater quality, the IGVs are presented for parameters for which there are no GTV.

The level of manganese in all wells exceeded the IGV. The level of ammonia in BH-07 and BH-09 exceeded the GTV. The elevated levels of ammonia are likely linked to local urban wastewater infrastructure with the manganese likely to be naturally occurring.

Elevated levels of TPH were detected in BH-03. The laboratory has interpreted the source of the hydrocarbons to be related to Linear Alkylbenzenes. There was no evidence of hydrocarbon impact noted during water sampling.

Table 3 Groundwater Metals and Inorganics

Parameter	BH-02	BH-03	BH-07	BH-09	BH-11	LOD	Unit	EPA IGV ¹	GTV ²
Dissolved Arsenic	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	ug/l	-	7.5
Dissolved Boron	34	35	32	51	30	<12	ug/l	-	750
Dissolved Cadmium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ug/l	-	3.75
Total Dissolved Chromium	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	ug/l	-	37.5
Dissolved Copper	<7	<7	<7	<7	<7	<7	ug/l	-	1,500

¹ EPA Report – Towards Setting Guideline Values for the Protection of Groundwater in Ireland, Interim Report, 2003.

² Groundwater Threshold Values as set out in S.I. 9 of 2010.

Parameter	BH-02	BH-03	BH-07	BH-09	BH-11	LOD	Unit	EPA IGV ¹	GTV ²
Dissolved Lead	<5	<5	<5	<5	<5	<5	ug/l	-	18.75
Dissolved Manganese	200	190	999	861	55	<2	ug/l	50	ne ³
Dissolved Mercury	<1	<1	<1	<1	<1	<1	ug/l	-	0.75
Dissolved Nickel	4	3	4	9	2	<2	ug/l	-	15
Dissolved Potassium	1.0	2.0	1.4	2.9	1.9	<0.1	mg/l	5	ne
Dissolved Zinc	<3	<3	<3	<3	<3	<3	ug/l	100	ne
Sulphate	101.6	47.6	9.4	67.2	126.6	<0.5	mg/l	-	187.5
Chloride	16.8	24.1	8.0	27.4	19.5	<0.3	mg/l	-	187.5
Nitrate as NO ₃	0.9	<0.2	<0.2	<0.2	<0.2	<0.2	mg/l	-	37.5
Total Cyanide	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/l	-	0.0375
Ammoniacal Nitrogen as NH ₃	<0.03	0.15	0.23	0.41	0.12	<0.03	mg/l	-	0.175
Electrical Conductivity @25C [#]	814	277	541	734	581	<2	µS/cm	1,000	1,875
pH	7.48	8.08	7.82	8.01	7.83	<0.01	pH units	≥ 6.5 - ≤ 9.5	ne

Table 4 Groundwater PAHs

Parameter	BH-02	BH-03	BH-07	BH-09	BH-11	LOD	Unit	EPA IGV	GTV
Naphthalene	<0.1	<0.1	<0.1	<0.1	<0.1	<0.013	µg/l	1	ne
Acenaphthylene	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	µg/l	ne	ne
Acenaphthene	<0.013	<0.013	<0.013	<0.013	<0.013	<0.014	µg/l	ne	ne
Fluorene	<0.014	<0.014	<0.014	<0.014	<0.014	<0.011	µg/l	ne	ne
Phenanthrene	<0.011	<0.011	<0.011	<0.011	<0.011	<0.013	µg/l	ne	ne
Anthracene	<0.013	<0.013	<0.013	<0.013	<0.013	<0.012	µg/l	10,000	ne
Fluoranthene	<0.012	<0.012	<0.012	<0.012	<0.012	<0.013	µg/l	1	ne
Pyrene	<0.013	<0.013	<0.013	<0.013	<0.013	<0.015	µg/l	ne	ne
Benzo(a)anthracene	<0.015	<0.015	<0.015	<0.015	<0.015	<0.011	µg/l	ne	ne
Chrysene	<0.011	<0.011	<0.011	<0.011	<0.011	<0.018	µg/l	ne	ne
Benzo(bk)fluoranthene	<0.018	<0.018	<0.018	<0.018	<0.018	<0.016	µg/l	ne	ne
Benzo(a)pyrene	<0.016	<0.016	<0.016	<0.016	<0.016	<0.011	µg/l	0.01	0.0075
Indeno(123cd)pyrene	<0.011	<0.011	<0.011	<0.011	<0.011	<0.01	µg/l	0.05	ne
Dibenzo(ah)anthracene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.011	µg/l	ne	ne
Benzo(ghi)perylene	<0.011	<0.011	<0.011	<0.011	<0.011	<0.195	µg/l	0.05	ne
PAH 16 Total	<0.195	<0.195	<0.195	<0.195	<0.195	<0.01	µg/l	ne	0.075
Benzo(b)fluoranthene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	µg/l	0.5	ne
Benzo(k)fluoranthene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	µg/l	0.05	ne

³ ne – not established.

Table 5 Groundwater Hydrocarbons

Parameter	BH-02	BH-03	BH-07	BH-09	BH-11	LOD	Unit	EPA IGV	GTV
TPH CWG									
Aliphatics									
>C5-C6	<10	<10	<10	<10	<10	<10	µg/l	ne	ne
>C6-C8	<10	<10	<10	<10	<10	<10	µg/l	ne	ne
>C8-C10	<10	<10	<10	<10	<10	<10	µg/l	ne	ne
>C10-C12	<5	<5	<5	<5	<5	<5	µg/l	ne	ne
>C12-C16	<10	70	<10	<10	<10	<10	µg/l	ne	ne
>C16-C21	<10	560	<10	<10	<10	<10	µg/l	ne	ne
>C21-C35	<10	<10	<10	<10	<10	<10	µg/l	ne	ne
Total aliphatics C5-35	<10	630	<10	<10	<10	<10	µg/l	0.01	ne
Aromatics									
>C5-EC7	<10	<10	<10	<10	<10	<10	µg/l	ne	ne
>EC7-EC8	<10	<10	<10	<10	<10	<10	µg/l	ne	ne
>EC8-EC10	<10	<10	<10	<10	<10	<10	µg/l	ne	ne
>EC10-EC12	<5	<5	<5	<5	<5	<10	µg/l	ne	ne
>EC12-EC16	<10	330	<10	<10	<10	<10	µg/l	ne	ne
>EC16-EC21	<10	2500	<10	<10	<10	<10	µg/l	ne	ne
>EC21-EC35	<10	<10	<10	<10	<10	<10	µg/l	ne	ne
Total aromatics C5-35	<10	2830	<10	<10	<10	<10	µg/l	0.01	ne
Total aliphatics and aromatics(C5-35)	<10	3460	<10	<10	<10	<10	µg/l	0.01	ne
Total Phenols HPLC	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	mg/l	0.5	ne
MTBE	<5	<5	<5	<5	<5	<5	µg/l	30	ne
Benzene	<5	<5	<5	<5	<5	<5	µg/l	ne	0.75
Toluene	<5	<5	<5	<5	<5	<5	µg/l	10	ne
Ethylbenzene	<5	<5	<5	<5	<5	<5	µg/l	10	ne
m/p-Xylene	<5	<5	<5	<5	<5	<5	µg/l	10	ne
o-Xylene	<5	<5	<5	<5	<5	<5	µg/l	10	ne

10.0 Subsoil Laboratory Analysis

10.1. Analysis Suite

In order to assess materials, which may be excavated and removed from site, in terms of waste classification, a selection of samples collected were analysed for a suite of parameters which allows for the assessment of the soils in terms of total pollutant content for classification of materials as *hazardous* or *non-hazardous* (RILTA Suite). The suite also allows for the assessment of the soils in terms of suitability for placement at various categories of landfill. The parameter list for the RILTA suite includes analysis of the solid samples for arsenic, barium, cadmium, chromium, copper, cyanide, lead, nickel, mercury, zinc,

speciated aliphatic and aromatic petroleum hydrocarbons, pH, sulphate, sulphide, moisture content, soil organic matter and an asbestos screen.

The total pollutant content analysis also provides analytical data which can be used to assess the quality of the subsoils underlying the site and allow an assessment of their suitability for a range of proposed uses against generic assessment criteria.

The RILTA suite also includes those parameters specified in the EU Council Decision establishing criteria for the acceptance of waste at Landfills (Council Decision 2003/33/EC), which for the solid samples are pH, total organic carbon (TOC), speciated aliphatic and aromatic petroleum hydrocarbons, BTEX, phenol, polychlorinated biphenyls (PCB) and PAH.

In line with the requirement of Council Decision 2003/33/EC a leachate was generated from the solid samples which was in turn analysed for antimony, arsenic, barium, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium, zinc, chloride, fluoride, soluble sulphate, sulphide, phenols, dissolved organic carbon (DOC) and total dissolved solids (TDS). The suite was selected due to the unknown origin of the material underlying the site and no evidence of specific contaminants of concern highlighted in the site history. The laboratory testing was completed by Element Materials Technology (EMT) in the UK; EMT is a UKAS accredited laboratory. The full laboratory reports are included in Appendix 6.

10.2. Asbestos

Asbestos fibres were **not** detected in the samples. The laboratory did **not** identify asbestos containing materials (ACMs) in the sample.

11.0 Waste Classification

GII understands that any materials which may be excavated from site would meet the definition of waste under the Waste Framework Directive. This may not be the case at the time of excavation when all or some of the materials may have been declared a by-product in line with Article 27 of the European Communities (Waste Directive) Regulations 2011⁴.

Excess soil and stone resulting from excavation works (the primary purpose of which is not the production of soil and stone) may be declared a by-product if all four by-product conditions are met.⁵

- a) further use of the soil and stone is certain;
- b) the soil and stone can be used directly without any further processing other than normal industrial practice;
- c) the soil and stone is produced as an integral part of a production process; and

⁴ S.I. No. 126/2011 - European Communities (Waste Directive) Regulations 2011 (Article 27).

⁵ Irish EPA (June 2019), Guidance on Soil and Stone By-Products.

d) further use is lawful in that the soil and stone fulfils all relevant requirements for the specific use and will not lead to overall adverse environmental or human health impacts.

Due to the varying levels of anthropogenic materials encountered in the made ground there are potentially two sets of List of Waste (LoW)⁶ codes with “mirror” entries which may be applied to excavated materials to be removed from site.

1. 17-05-03* (soil and stone containing dangerous substances, classified as hazardous) or 17-05-04 (soil and stone other than those mentioned in 17-05-03, not hazardous); or
2. 17-09-03* (other construction and demolition wastes (including mixed wastes) containing hazardous substances) or 17-09-04 (mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03).

Where waste is a mirror entry in the LoW, it can be classified via a process of analysis against standard criteria set out in the Waste Framework Directive. The assessment process is described in detail in guidance published by the Irish (EPA Waste Classification, List of Waste & Determining if Waste is Hazardous or Non-Hazardous, June 2015) and UK regulatory authorities (Guidance on the Classification and Assessment of Waste: Technical Guidance WM3, 2015). The assessment involves comparison of the concentration of various parameters against defined threshold values.

The specific LoW code which should be applied to the material at each sample location is summarised in Table 1 below. These codes are only applicable where the material is being removed for site as a waste.

GII use HazWasteOnline™, a web-based commercial waste classification software tool which assists in the classification of potentially hazardous materials. This tool was used to determine whether the materials sampled are classified as hazardous or non-hazardous. The use of the online tool is accepted by the EPA (EPA 2014).

The conclusions presented in the report are based on GII’s professional opinion. **It should be noted that the environmental regulator (in this case the EPA) and the waste acceptor (in this case a landfill operator) shall decide whether a waste is hazardous or non-hazardous and suitable for disposal at their facility.**

11.1. HazWasteOnLine™ Results

In total, fifty-seven (57 No.) samples were assessed using the HazWasteOnLine™ Tool. All samples were classified as being not hazardous. The complete HazWasteOnLine™ reports for all samples are included in Appendix 7. The specific LoW code which should be applied to the material at each SI location is summarised in Table 7 below. The assigning of the LoW code is based on observations recorded in the trial pits, boreholes and window samples, an estimation of the % of anthropogenic material present and the results of the HazWasteOnline™ output. The final LoW codes applied at the time of disposal may vary due

⁶ Formerly European Waste Catalogue Codes (EWC Codes)

to variations in % of anthropogenic material observed in the excavation phase. Where there is in excess of 2%⁷ anthropogenic material observed the LoW code 17 09 04 may be applied.

11.2. Landfill Waste Acceptance Criteria

Waste Acceptance Criteria (WAC) have been agreed by the EU (Council Decision 2003/33/EC) and are only applicable to material if it is to be disposed of as a waste at a landfill facility. Each individual member state and licensed operators of landfills may apply more stringent WAC. WAC limits and the associated laboratory analysis are not suitable for use in the determination of whether a waste is hazardous or non-hazardous. The data have been compared to the WAC limits set out in Council Decision 2003/33/EC as well as the specific WAC which the EPA have applied to the Integrated Materials Solutions (IMS) Landfill in north County Dublin. The IMS landfill has higher limits for a range of parameters while still operating under an inert landfill licence. The WAC data considered in combination with the waste classification outlined in Section 12.0 allows the most suitable waste category to be applied to the material tested. The applicable waste categories are summarised in Table 6. A summary of the WAC data is presented in Appendix 8. The waste category assigned to each sample is summarised in Table 7.

Table 6 Waste Category for Disposal/Recovery

Waste Category	Classification Criteria
Category A Unlined Soil Recovery Facilities	Soil and Stone only which are free from ⁸ anthropogenic materials such as concrete, brock timber. Soil must be free from “contamination” e.g. PAHs, Hydrocarbons ⁹ .
Category B1 Inert Landfill	Reported concentrations within inert waste limits, which are set out by the adopted EU Council Decision 2003/33/EC establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 and Annex II of Directive 1999/31/EC (2002). Results also found to be non-hazardous using the HWOL ¹⁰ application.
Category B2 Inert Landfill	Reported concentrations greater than Category B1 criteria but less than IMS Hollywood Landfill acceptance criteria, as set out in their Waste Licence W0129-02. Results also found to be non-hazardous using the HWOL application.
Category C Non-Haz Landfill	Reported concentrations greater than Category B2 criteria but within non-haz landfill waste acceptance limits set out by the adopted EU Council Decision 2003/33/EC establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 and Annex II of Directive 1999/31/EC (2002). Results also found to be non-hazardous using the HWOL application.

⁷ EPA (2020) - Guidance on Waste Acceptance Criteria at Authorised Soil Recovery Facilities.

⁸ Free from equates to less than 2%.

⁹ Total BTEX 0.05mg/kg, Mineral Oil 50mg/kg, Total PAHs 1mg/kg, Total PCBs 0.05mg/kg and Asbestos No Asbestos Detected – EPA Guidance on Waste Acceptance Criteria at Authorised Soil Recovery Facilities, 2020.

¹⁰ HazWasteOnline™ Tool.

Category C 1 Non-Haz Landfill	As Category C but containing < 0.001% w/w asbestos fibres.
Category C 2 Non-Haz Landfill	As Category C but containing >0.001% and <0.01% w/w asbestos fibres
Category C 3 Non-Haz Landfill	As Category C but containing >0.01% and <0.1% w/w asbestos fibres.
Category D Hazardous Treatment	Results found to be hazardous using HWOL Application.
Category D 1 Hazardous Disposal	Results found to be hazardous due to the presence of asbestos (>0.1%).

11.3. Final Waste Categorisation

All samples were assessed in terms of waste classification using the HazWasteOnLine™ tool and also the WAC set out in Council Decision 2003/33/EC and the IMS specific WAC to give a final waste categorisation to determine the most appropriate disposal route for any waste generated. The final and most applicable waste category for each sample is summarised in Table 7. The samples of the black boulder clay at WS-08 and WS-14 and BH-04, 06, 07, 08, 09, 10 & 11 were classified as either Category B2 or C due to the presence of naturally occurring Selenium. The remainder of the material sampled can be considered to be inert and meet the Category A criteria.

Table 7 Individual Sample Waste Category

Sample ID	Sample Depth (m)	Material Type	Waste Category	LoW Code
CBR01	0.70	Clay	Category A	17 05 04
CBR02	0.70	Clay	Category A	17 05 04
CBR03	0.70	Clay	Category A	17 05 04
CBR04	0.70	Clay	Category A	17 05 04
CBR06	0.70	Clay	Category A	17 05 04
CBR07	0.70	Clay	Category A	17 05 04
CBR08	0.70	Clay	Category A	17 05 04
CBR09	0.70	Clay	Category A	17 05 04
CBR10	0.70	Clay	Category A	17 05 04
WS01	0.70	Clay	Category A	17 05 04
WS01	1.70	Clay	Category A	17 05 04
WS01	2.40	Clay	Category A	17 05 04
WS02	0.70	Clay	Category A	17 05 04
WS02	1.70	Clay	Category A	17 05 04
WS02	2.50	Clay	Category A	17 05 04
WS03	0.70	Clay	Category A	17 05 04
WS03	1.70	Clay	Category A	17 05 04
WS03	2.70	Clay	Category A	17 05 04
WS04	0.70	Clay	Category A	17 05 04
WS04	1.70	Clay	Category A	17 05 04
WS05	0.70	Clay	Category A	17 05 04
WS05	1.70	Clay	Category A	17 05 04

Sample ID	Sample Depth (m)	Material Type	Waste Category	LoW Code
WS06	0.70	Clay	Category A	17 05 04
WS06	1.70	Clay	Category A	17 05 04
WS07	0.70	Clay	Category A	17 05 04
WS07	1.70	Clay	Category A	17 05 04
WS07	2.60	Clay	Category A	17 05 04
WS08	0.70	Clay	Category A	17 05 04
WS08	1.70	Clay	Category A	17 05 04
WS08	2.60	Clay	Category B2	17 05 04
WS09	0.70	Clay	Category A	17 05 04
WS09	1.70	Clay	Category A	17 05 04
WS09	2.60	Clay	Category A	17 05 04
WS10	0.70	Clay	Category A	17 05 04
WS10	1.70	Clay	Category A	17 05 04
WS10	2.30	Clay	Category A	17 05 04
WS11	0.70	Clay	Category A	17 05 04
WS11	1.70	Clay	Category A	17 05 04
WS11	2.20	Clay	Category A	17 05 04
WS12	0.70	Clay	Category A	17 05 04
WS12	1.70	Clay	Category A	17 05 04
WS12	2.50	Clay	Category A	17 05 04
WS13	0.70	Clay	Category A	17 05 04
WS13	1.40	Clay	Category A	17 05 04
WS14	0.70	Clay	Category A	17 05 04
WS14	1.70	Clay	Category A	17 05 04
WS14	2.70	Clay	Category C	17 05 04
BH03	3.0	Clay	Category B2	17 05 04
BH04	3.0	Clay	Category B2	17 05 04
BH05	3.0	Clay	Category A	17 05 04
BH06	3.0	Clay	Category B2	17 05 04
BH07	3.0	Clay	Category B2	17 05 04
BH08	3.0	Clay	Category C	17 05 04
BH09	3.0	Clay	Category C	17 05 04
BH10	3.0	Clay	Category B2	17 05 04
BH11	3.0	Clay	Category C	17 05 04
BH12	3.0	Clay	Category A	17 05 04

12.0 Suitable for Use Assessment

GII assessed the soil data collected from the trial pits against the LQM/CIEH S4ULs for Human Health Risk Assessment (S4ULs)¹¹. The S4ULs present soil assessment criteria for an extended range of 89 substances. For each substance, S4ULs have been derived for a range of generic land uses and Soil Organic Matter (%SOM) contents. All toxicological and physical-chemical inputs used in the derivation of the S4ULs are clearly identified and discussed. For each substance, S4ULs have been derived for six generic land uses (including the two Public Open Space land uses defined in C4SL guidance) and a range of Soil Organic Matter contents (organic contaminants only). All toxicological and physical-chemical data

¹¹ LQM/CIEH 'Suitable 4 Use Levels' (S4ULs). Copyright Land Quality Management Limited reproduced with permission; Publication Number S4UL3746. All rights reserved.

inputs used in the derivation of the S4ULs are presented and discussed in the publication. The proposed future use of the site is residential and as such the residential with homegrown produce S4UL criteria have been applied to the data.

The parameters tested for the samples analysed were within the residential with homegrown produce S4ULs. A full summary of the S4UL data is presented in Appendix 9.

13.0 Conclusions & Recommendations

The conclusions and recommendations given and opinions expressed in this report are based on the findings of the site investigation works and laboratory testing undertaken. Where any opinion is expressed on the classification of material between site investigations locations, this is for guidance only and no liability can be accepted for its accuracy. No responsibility can be accepted for conditions which have not been revealed by the findings at the site investigation locations.

13.1. Conclusions

13.1.1. Subsoil Quality

Based on the chemical analysis of the subsoil sampled collected across the site the site is free of contamination.

13.1.2. Waste Classification

Based on the results of the HazWasteOnLine™ tool the material sampled across the site can be classified as not hazardous.

13.1.3. Waste Categories

The most applicable waste category for each of the samples has been presented in Table 4. The black boulder clay underlying the site due to naturally occurring level of the metal selenium has been classified as either Category B2 or C if it is to be excavated and removed from site as waste material. This is not indicative of contamination of the material.

13.1.4. Groundwater

The groundwater analysis shows that the groundwater has been slightly impacted by nutrients potentially related to local urban wastewater infrastructure. Naturally elevated levels of manganese were also detected. Elevated levels of TPH related to linear alkylbenzenes were detected in BH-03. No evidence of

hydrocarbon impact was noted during sampling. Subsoil samples collected and analysed in BH-03 did not show any evidence of hydrocarbon impact. There is no known source of linear alkylbenzenes on site.

13.1.5. Asbestos

Asbestos was **not** detected in the soil samples.

13.1.6. By-Product Suitability

The material sampled is suitable for removal from site as a by-product which will *not lead to overall adverse environmental or human health impacts*.

13.2. Recommendations

13.2.1. Waste Transfer

In the event that material is excavated for removal from site, any firm engaged to transport waste material from site and the operator of any waste facility that will accept subsoils excavated from this site should be furnished with, at a minimum, copies of the **full unabridged** laboratory reports and HazWasteOnLine™ report for all samples presented in this report.

The material on site if excavated as a waste should be removed to the most appropriate facility under the waste categories and LoW codes identified in Table 4. Potential outlets for the various waste categories are presented in Appendix 10, this list is not exhaustive and applicable at the time of the writing this report.

The non-hazardous material across the site if excavated as a waste should be removed from site to an appropriate facility under either the LoW codes 17 05 04 or 17 09 04. Where during excavation there is noted to be in excess of 2% anthropogenic material the appropriate LoW code which should be applied is 17 09 04.

It is recommended that the natural subsoils, if excavated, are not removed from site as a waste product but rather as a by-product.

13.2.2. Removal of Material as a By-Product

The material sampled is suitable from an environmental impact perspective for removal from site as a by-product in line with Article 27 of the European Communities (Waste Directive) Regulations 2011. The material may only be declared a by-product if all four by-product conditions are met.

- a) further use of the soil and stone is certain;

- b) the soil and stone can be used directly without any further processing other than normal industrial practice;
- c) the soil and stone is produced as an integral part of a production process; and
- d) further use is lawful in that the soil and stone fulfils all relevant requirements for the specific use and will not lead to overall adverse environmental or human health impacts.

14.0 References

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APPENDIX 1 - Figures



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716900E

717000E

717100E

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731400N

731300N

731200N

731100N

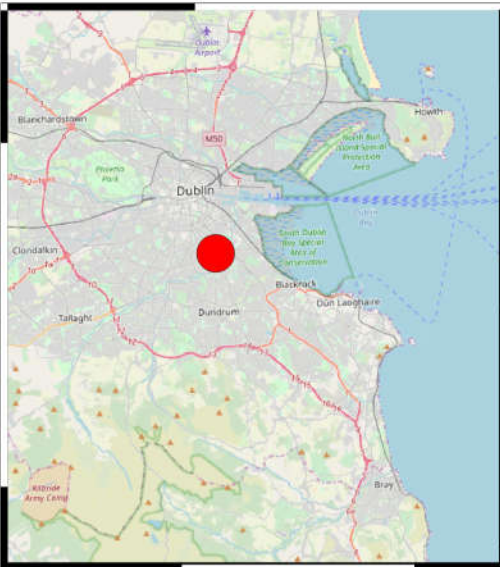
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731300N

731200N

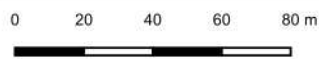
731100N



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Client:



Project Title:
Sandford Park

Drawing Title:
Figure 1 Site Location

GII Project Reference:
9338-12-19

Drawn By:
BS

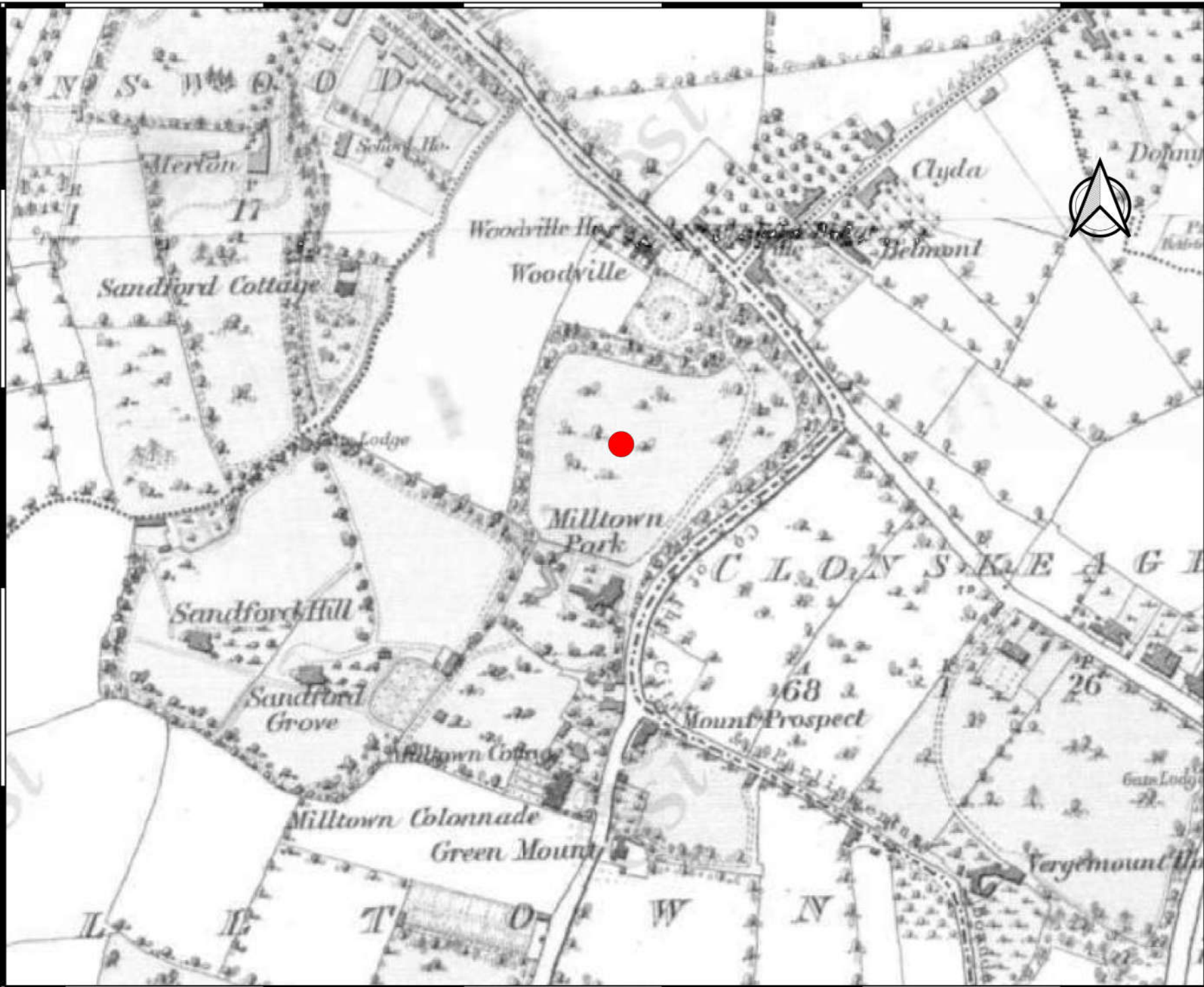
Date:
10/02/2020



Site Location



Indicative Site Boundary



 Indicative Site Location

Client:



Project Code:

9338-12-19

Project Title:

Sandford Park

Drawing Title:

Figure 2 OSI 6-Inch Map

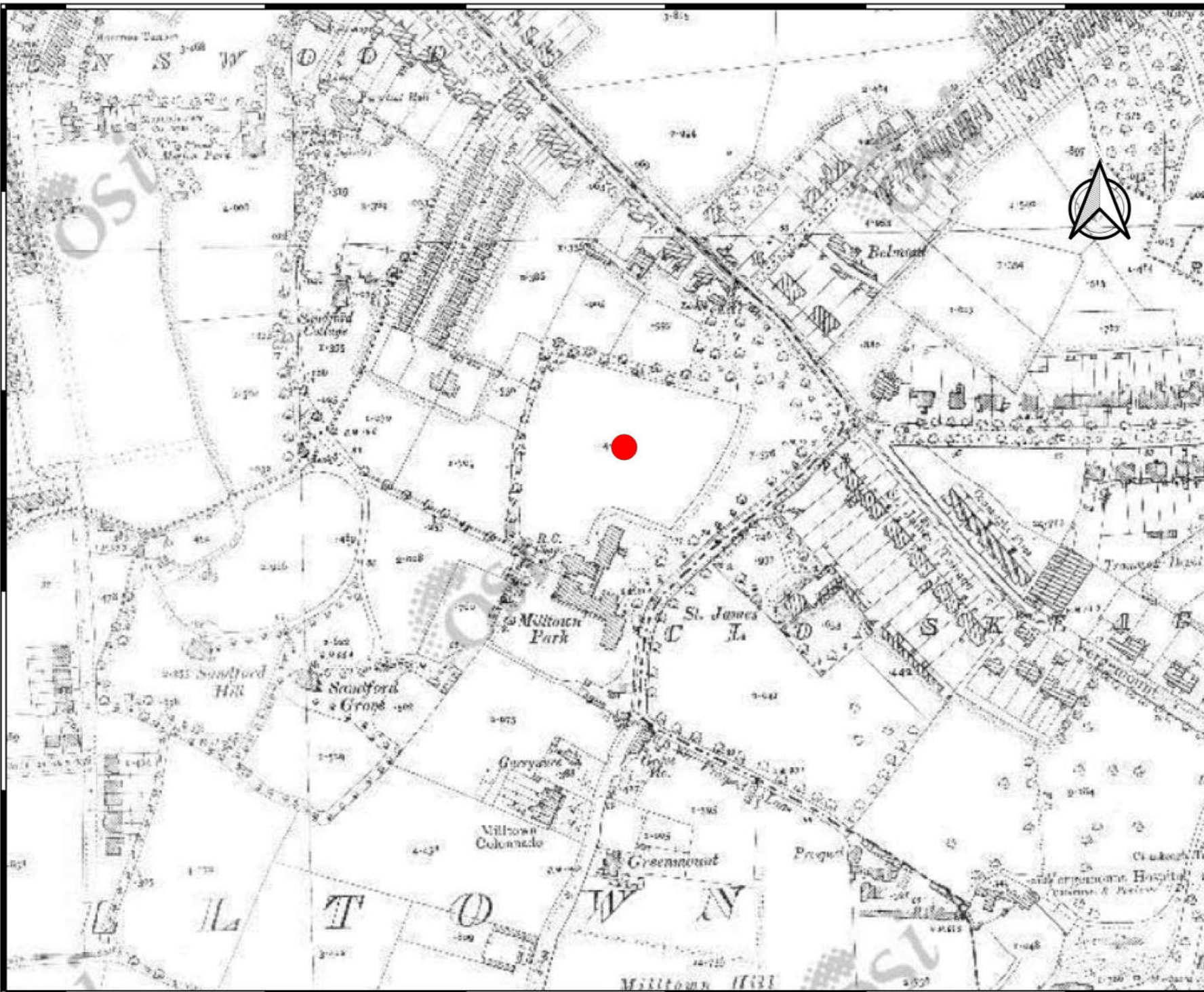


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Figure 3 OSI 25-Inch Map

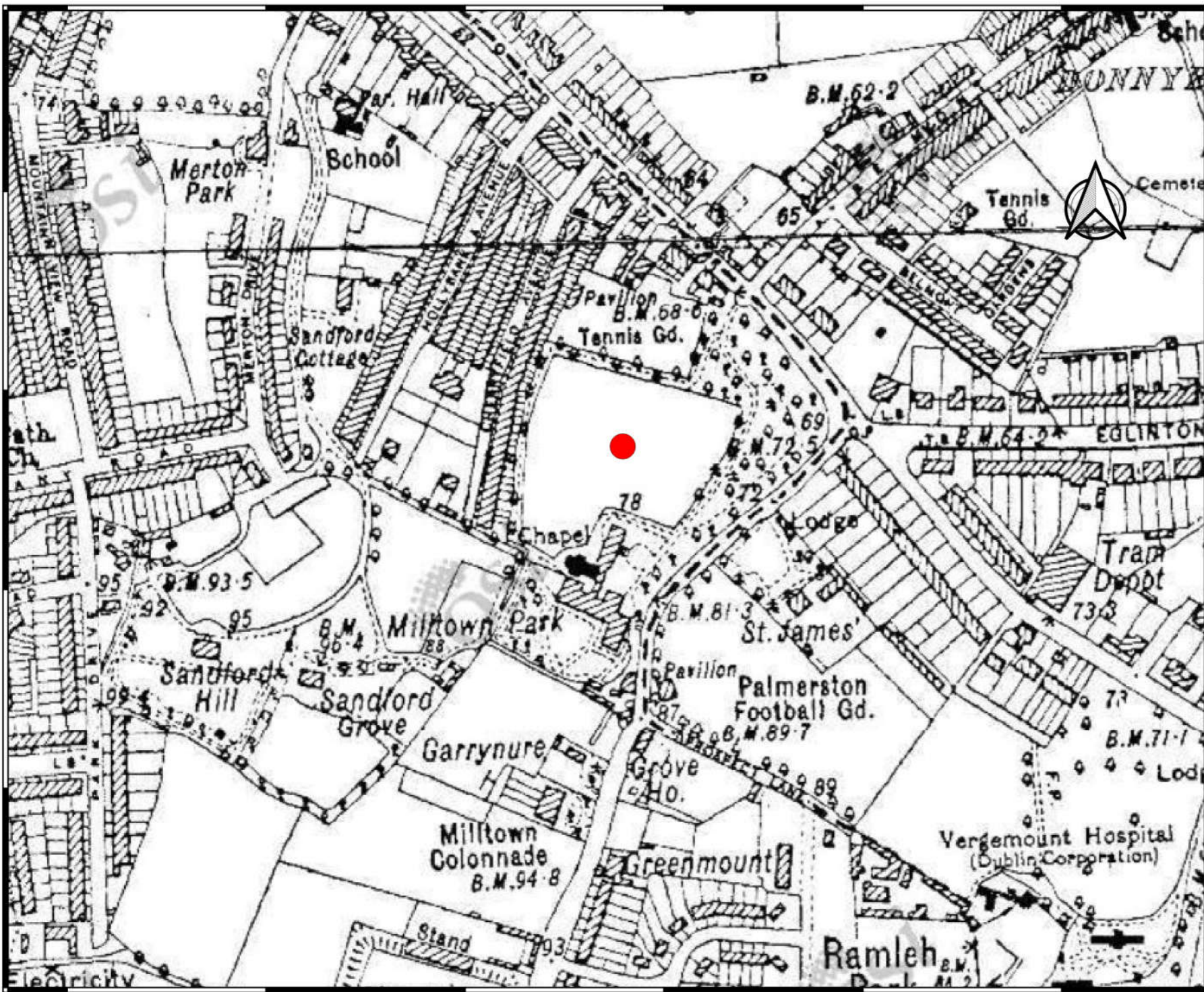



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Figure 4 OSI Cassini



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Date:
10/02/2020

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716800E

717200E

731600N

731200N

730800N

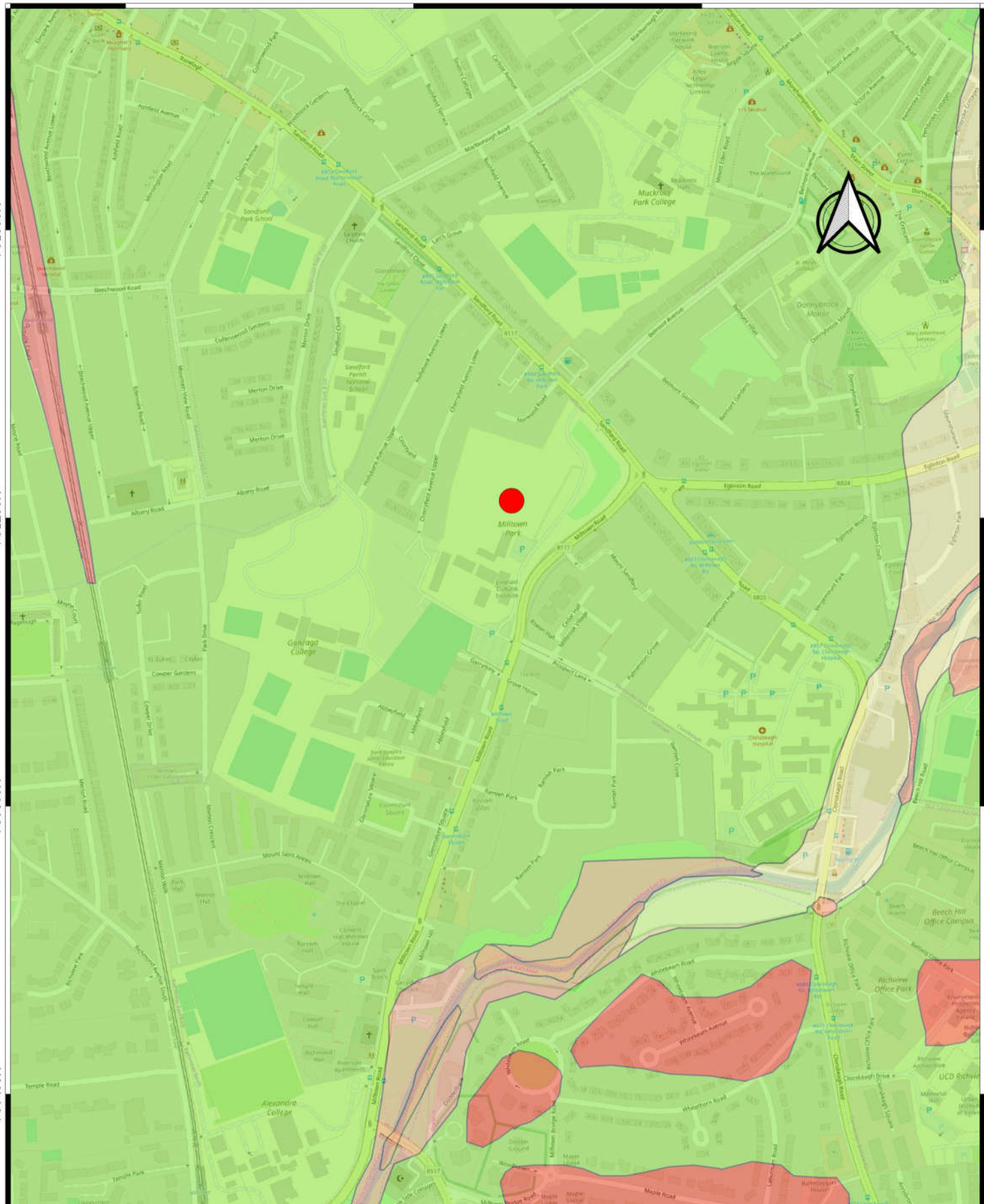
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730800N

730400N



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 Figure 5 Quaternary Geology

GII Project Reference:
 9338-12-19

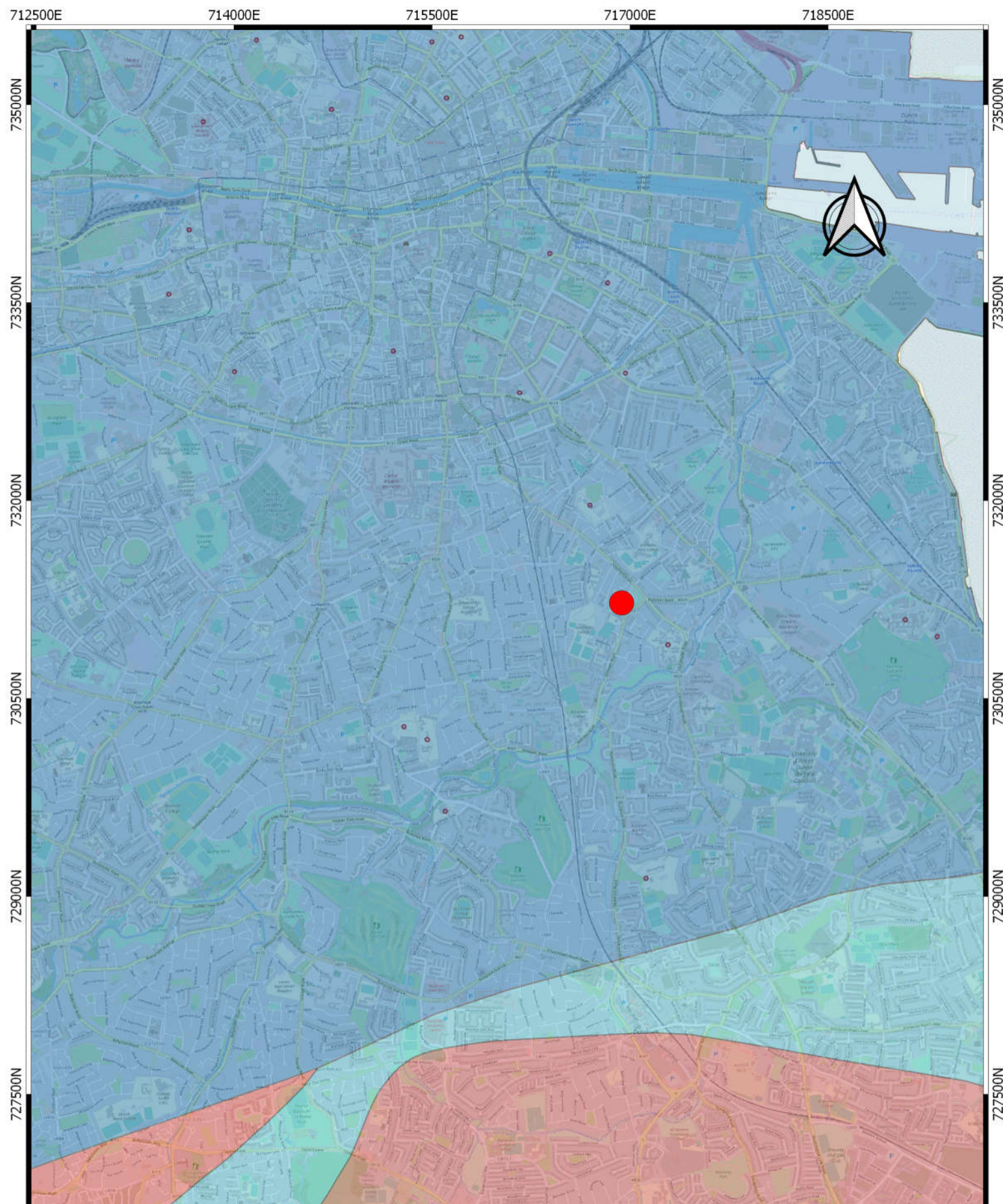
Drawn By:
 BS

Date:
 10/02/2020

 Site Location

- SUBSOILS**
-  A
 -  Ag
 -  GLs
 -  Rck
 -  TLs
 -  Urban





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Drawing Title:
Figure 6 Bedrock Geology


GII Project Reference:
9338-12-19


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BS


Date:
10/02/2020


 Site Location

Bedrock Geology

 Butter Mountain Fm

 Lucan Formation

 Type 2e equigranular

 Type 2p microcline

714000E

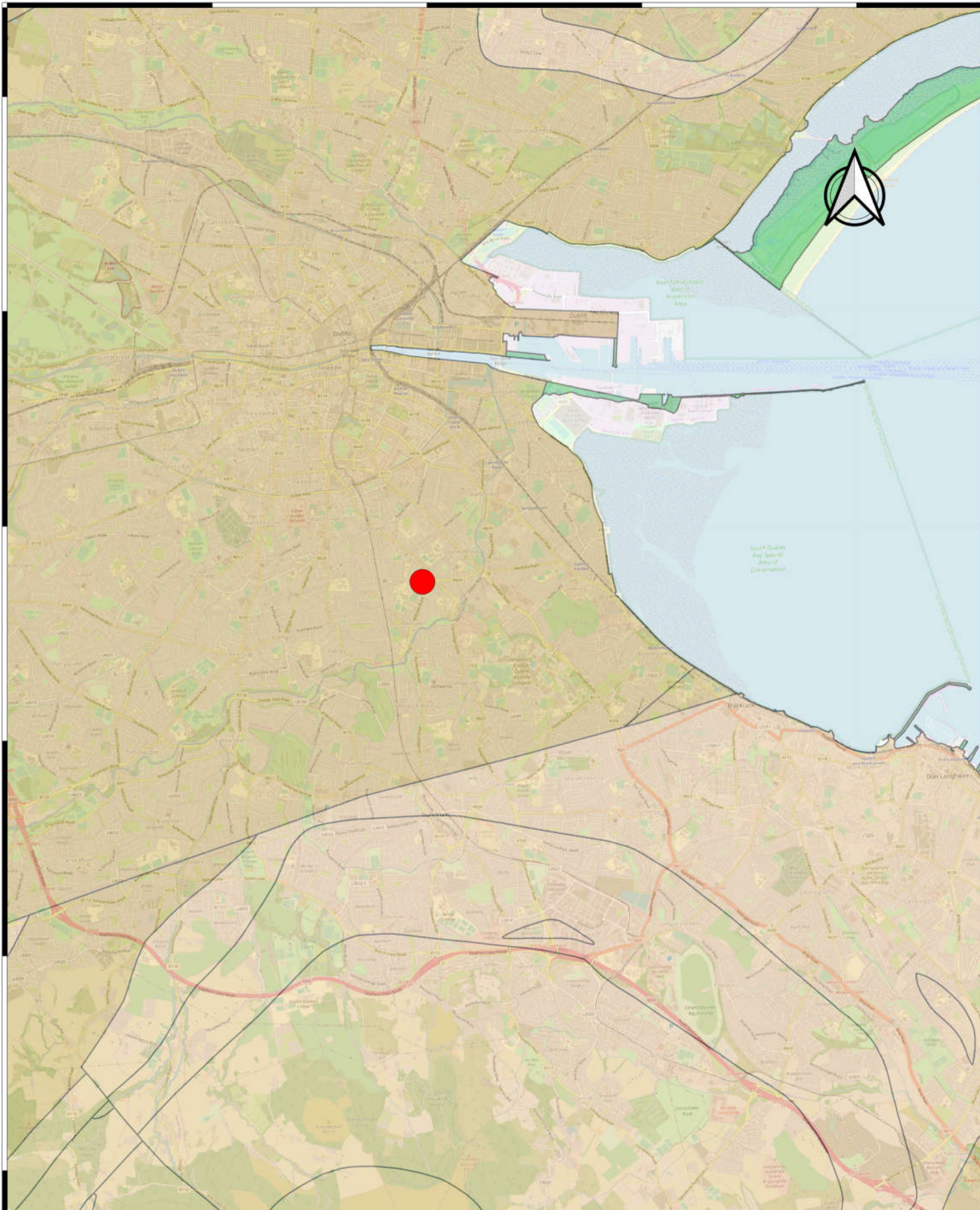
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720000E

723000E

738000N
735000N
732000N
729000N
726000N
723000N

738000N
735000N
732000N
729000N
726000N
723000N



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Project Title:
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Drawing Title:
Figure 7 Aquifer Category

GII Project Reference:
9338-12-19

Drawn By:
BS

Date:
10/02/2020

 Site Location

Bedrock Aquifer

 LI

 PI

 Unclas

716400E

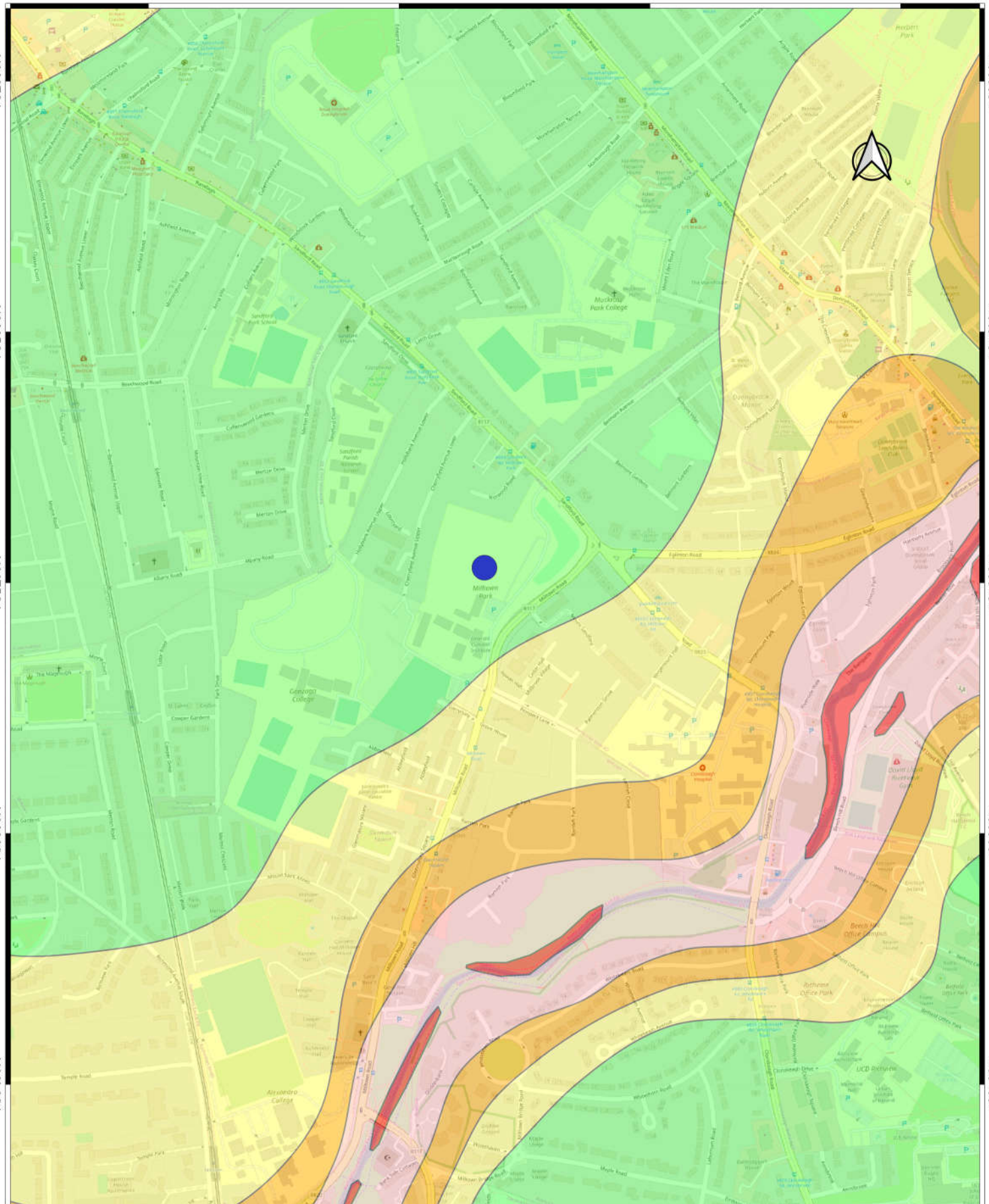
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717200E

717600E

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Figure 8 Aquifer Vulnerability


GII Project Reference:
9338-12-19

Drawn By:
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Date:
10/02/2020

 Site Location

Aquifer Vulnerability

-  E
-  H
-  L
-  M
-  X

700000E

710000E

720000E

730000E

750000N

750000N

740000N

740000N

730000N

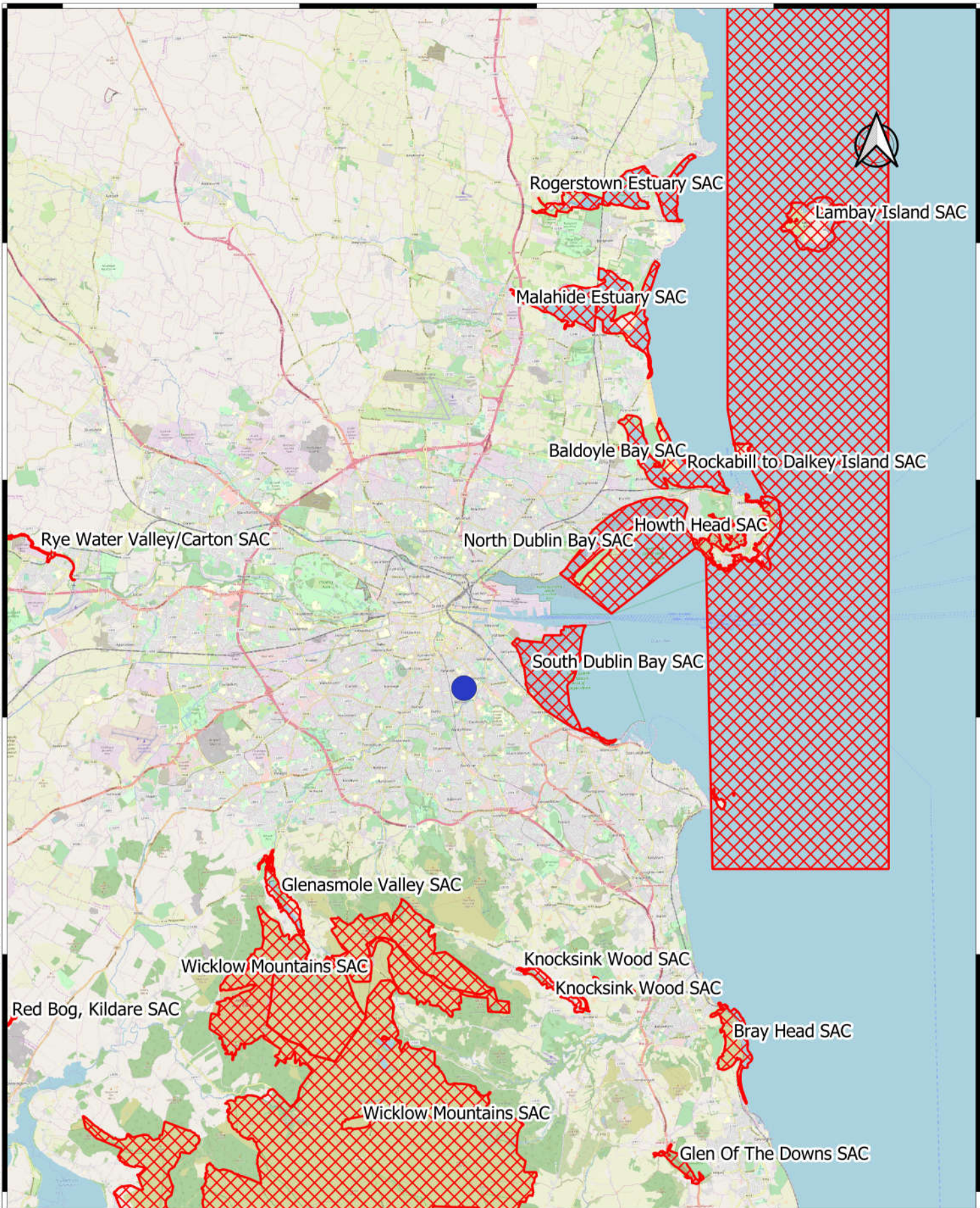
730000N

720000N

720000N

710000N

710000N



Ground Investigations Ireland Ltd.
 Catherinstown House,
 Hazelhatch Road,
 Newcastle, Co. Dublin
 www.gii.ie 01-6015175/5176

Client:



Project Title:
 Sandford Park

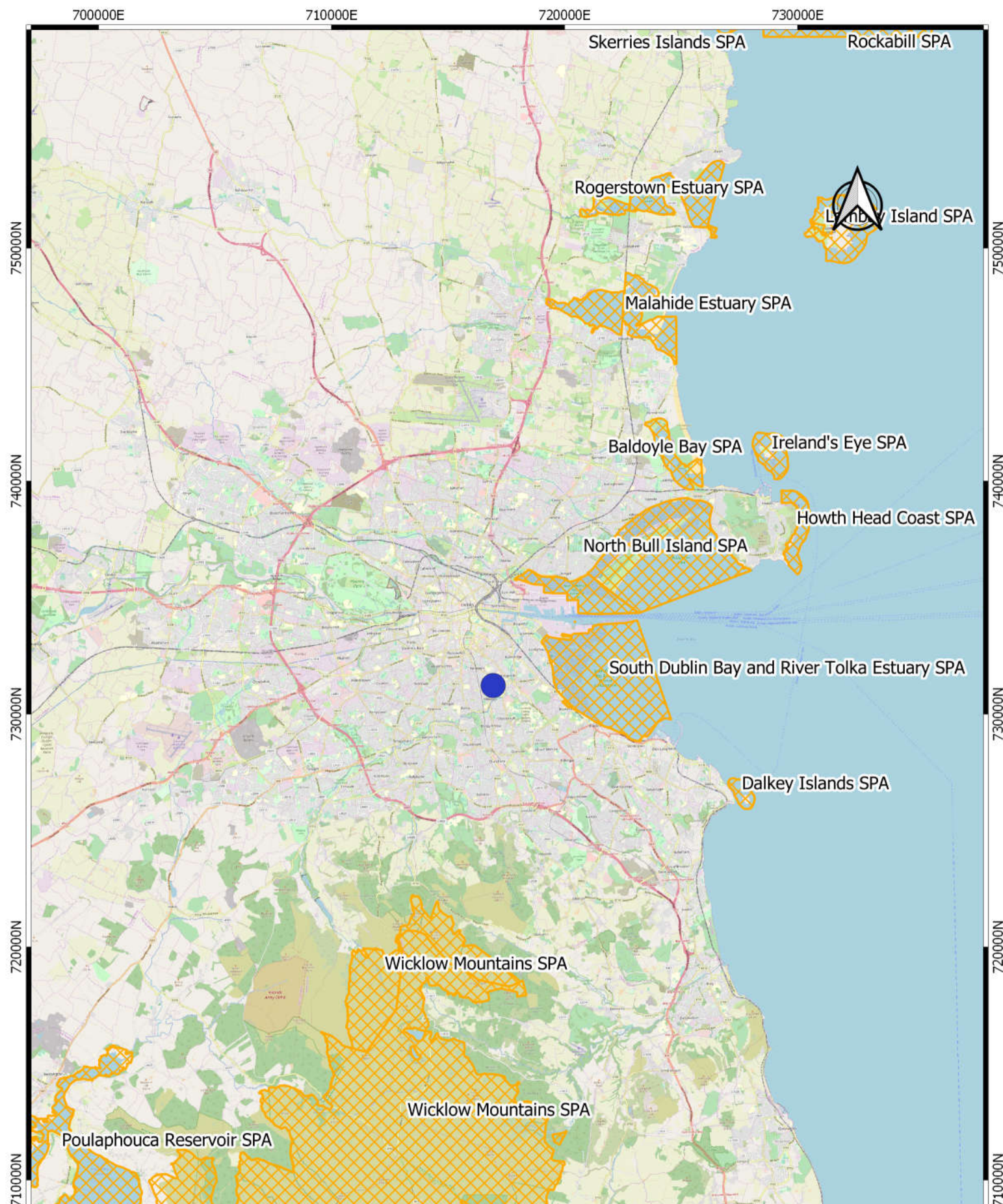
Drawing Title:
 Figure 9 Special Area of Conservation

GII Project Reference:
 9338-12-19

Drawn By:
 BS

Date:
 10/02/2020


-  Site Location
-  SAC





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Geotechnical & Environmental

Ground Investigations Ireland Ltd.
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Hazelhatch Road,
Newcastle, Co. Dublin
www.gii.ie 01-6015175/5176

Client:



0 4 8 km



Project Title:
Sandford Park

Drawing Title:
Figure 10 Special Protected

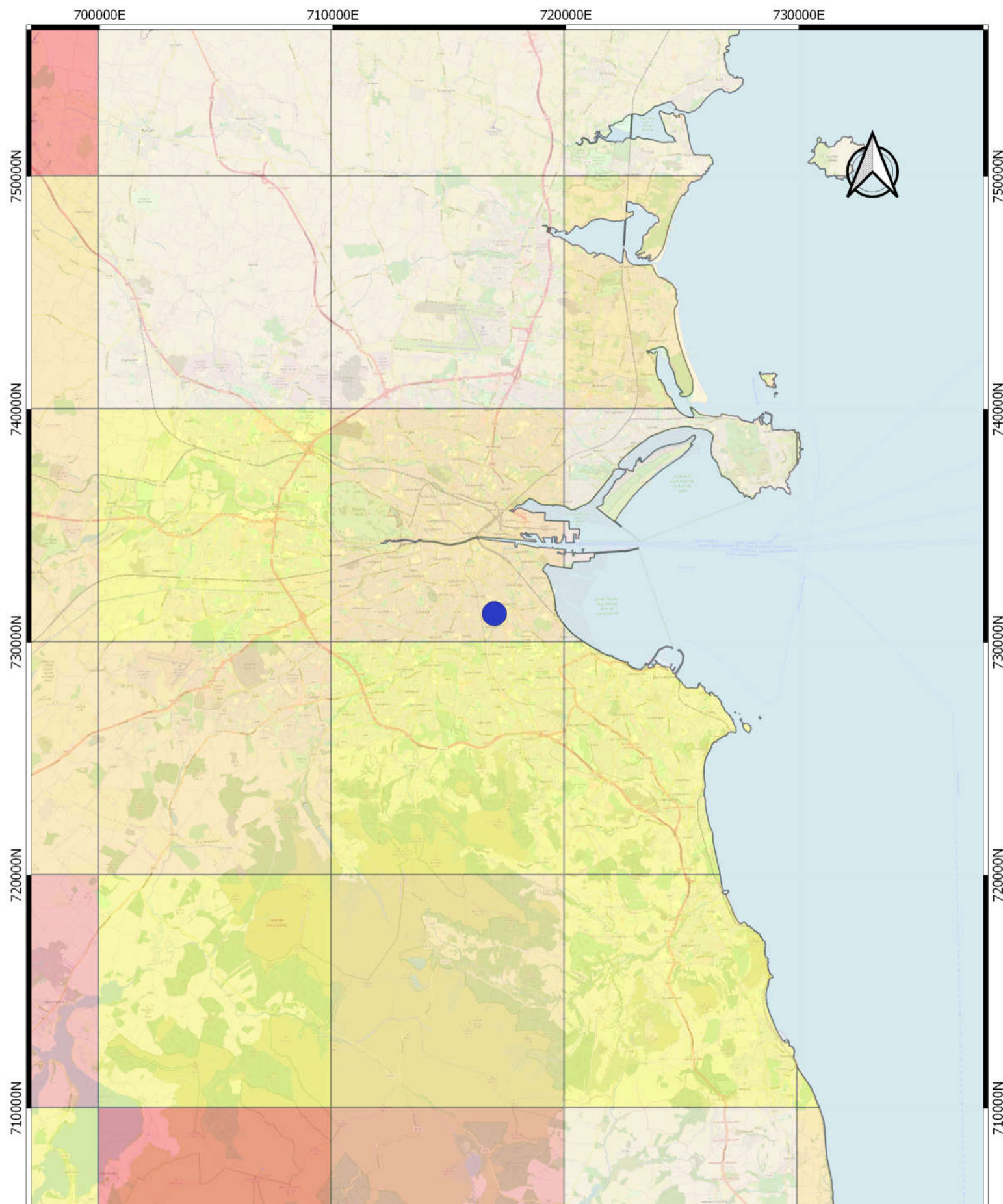
GII Project Reference:
9338-12-19

Drawn By:
BS

Date:
9338-12-19

 Site Location

 SPA



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Client:



Project Title:
Sandford Park

Drawing Title:
Figure 11 Radon






GII Project Reference:
9338-12-19

Drawn By:
BS

Date:
10/02/2020

 Site Location

RADON

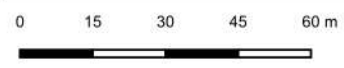
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-  5% - 10%
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Client:





Project Title:
Sandford Park

Drawing Title:
Figure 12 SI Locations

GII Project Reference:
9338-12-19

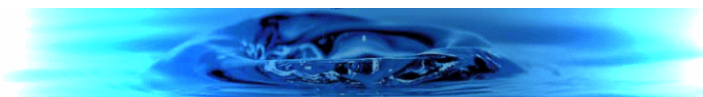
Drawn By:
BS

Date:
21/04/2020

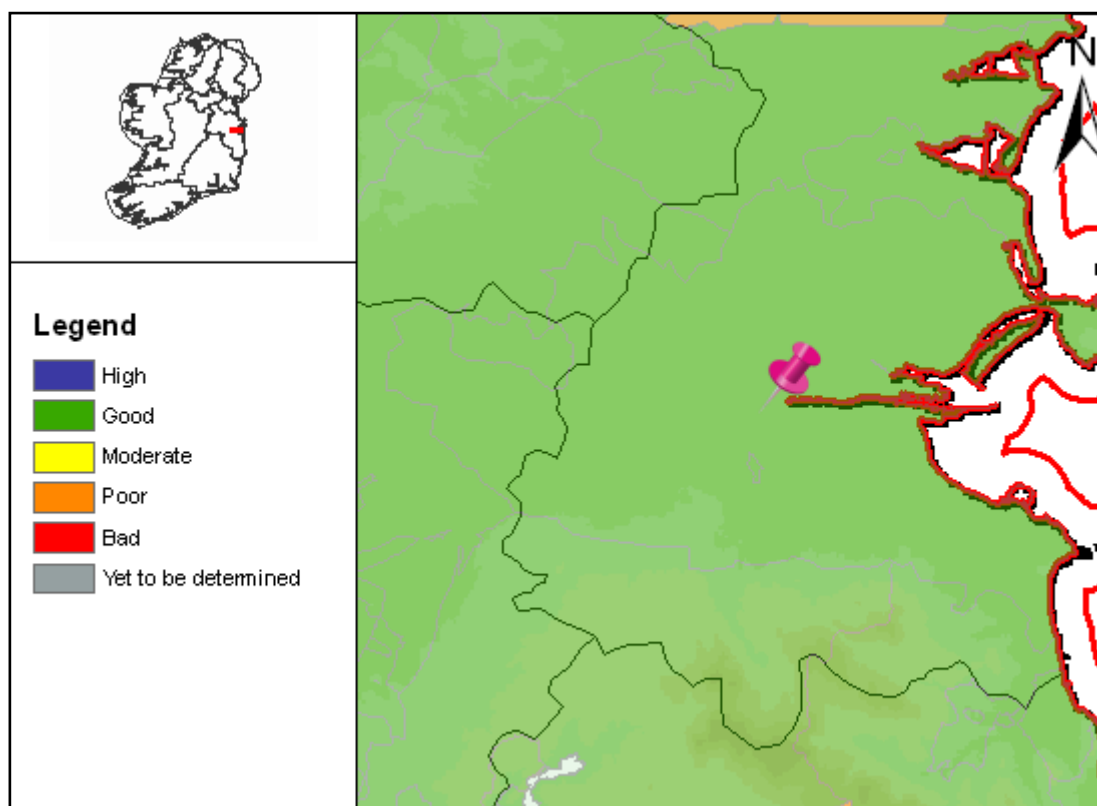
-  Indicative Site Boundary
-  Borehole
-  Window Sample

APPENDIX 2 – Water Body Reports





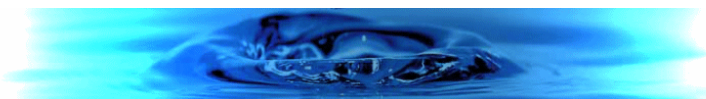
Full Report for Waterbody Dublin Urban



River Basin Management Plans (RBMPs) have been published for all River Basin Districts in Ireland in accordance with the requirements of the Water Framework Directive. The WaterMaps viewer is an integral part of the River Basin Management Plan and provides access to information at individual waterbody level and at Water Management Unit level for all the River Basin Districts in Ireland.

The following report provides summary plan information about the selected waterbody (indicated by the pin in the map above) relating to its status, risks, objectives, and measures proposed to retain status where this is adequate, or improve it where necessary. Waterbodies can relate to surface waters (these include rivers, lakes, estuaries [transitional waters], and coastal waters), or to groundwaters. Other relevant information not included in this report can be viewed using the WaterMaps viewer, including areas listed in the Register of Protected Areas.

You will find brief notes at the bottom of some of the individual report sheets that will help you in interpreting the information presented. More detailed information can be obtained in relation to all aspects of the RBMPs at www.wfdireland.ie.



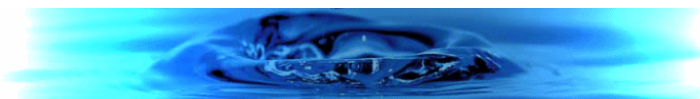
Summary Information:

Water Management Unit: N/A
WaterBody Category: Groundwater Waterbody
WaterBody Name: Dublin Urban
WaterBody Code: IE_EA_G_005
Overall Status: Good
Overall Objective: Protect
Overall Risk: 1a At Risk
Heavily Modified: No



Report data based upon final RBMP, 2009-2015.

The information provided above is a summary of the principal findings related to the selected waterbody. Further details and explanation of individual elements of the report are outlined in the following pages.



Chemical and Quantitative Status Report

Water Management Unit: N/A
WaterBody Category: Groundwater Waterbody
WaterBody Name: Dublin Urban
WaterBody Code: IE_EA_G_005
Overall Status Result: Good
Heavily Modified: No



Status Element Description		Result
Status information		
INS	Status associated with saline intrusion into groundwater	N/A
DWS	Status associated with exceedances of water quality above specific standards	N/A
DS	Chemical status of groundwater due to pressure from diffuse sources of pollution	N/A
CLS	Chemical status of groundwater due to pressure from contaminated soil or land.	N/A
MS	Chemical status of groundwater due to pressure from mine sites (active or closed).	N/A
UAS	Chemical status of groundwater due to pressures from urban areas	N/A
GWS	General groundwater quality status	N/A
RPS	Status associated with MRP loading to rivers	N/A
TNS	Status associated with nitrate loading to transitional and coastal waters	N/A
SWS	Overall status associated with nutrient loadings to rivers and transitional and coastal waters	N/A
SQS	Status associated with dependant surface water quantitative status	N/A
GDS	Groundwater dependant terrestrial ecosystems status	N/A
QSO	Quantitative status overall	Good
CSO	Chemical status overall	Good
OS	Overall status	Good

GS -HC : Good status High Confidence
 GS- LC : Good status Low Confidence
 n/a - not assessed

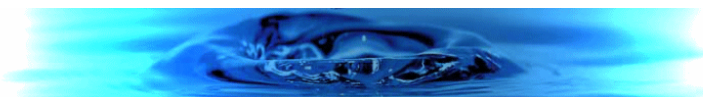
Status

By 'Status' we mean the condition of the water in the waterbody. It is defined by its chemical status and quantitative status, whichever is worse. Groundwaters are ranked in one of 2 status classes: Good or Poor.

You can read more about status and how it is measured in our RBMP Document Library at www.wfdireland.ie (Directory 15 Status).

Date Reported to Europe: July 2010

Date Report Created 10/02/2020

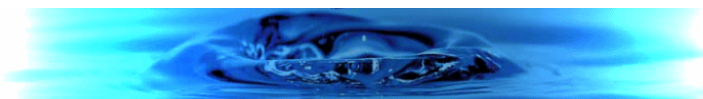


Risk Report

Water Management Unit: N/A
WaterBody Category: Groundwater Waterbody
WaterBody Name: Dublin Urban
WaterBody Code: IE_EA_G_005
Overall Risk Result: 1a At Risk
Heavily Modified: No



	Risk Test Description	Risk
	Groundwater Dependent Terrestrial Ecosystems	
TE	GWDTE Risk	N/A
	Groundwater Quality	
DIF	Diffuse Elements (General) Risk	N/A
DW	Drinking Waters Risk	N/A
INT	Intrusions Risk	N/A
WB	Water Balance Risk	N/A
	Groundwater Quality (General)	
GQ	General Groundwater Quality Risk	N/A
	Groundwater Quality (Point Risk)	
CL	Contaminated Land Risk	N/A
LF	Landfill Risk	N/A
MI	Mine Risk	N/A
QY	Quarry Risk	N/A
UR	Urban Risk	N/A
UW	UWWT Risk	N/A
	GW Diffuse Risk Sources	
WB3	Mobile Nutrients (NO3)	N/A
WB4	Mobile Chemicals	N/A
WB5	Clustered OSWTSs and leaking urban sewerage systems	N/A
	GW Hydrology	
WB1	Water balance - Abstraction	N/A
WB2	Abstraction - Intrusion	N/A

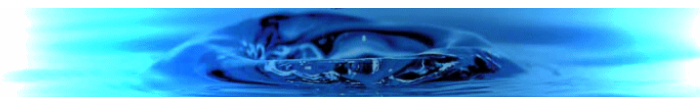


GW Point Risk Sources		
WB10	Risk from Point sources of pollution - Contaminated Land	N/A
WB11	Risk from Point sources of pollution - Trade Effluent Discharges	N/A
WB12	Risk from Point sources of pollution - Urban Wastewater Discharges	N/A
WB6	Risk from Point sources of pollution - Mines	N/A
WB7	Risk from Point sources of pollution - Quarries	N/A
WB8	Risk from Point sources of pollution - Landfills	N/A
WB9	Risk from Point sources of pollution - Oil Industry Infrastructure	N/A
Overall Risk		
RA	Groundwater Overall - Worst Case	N/A
Risk information		
CLR	Contaminated land risk	1a At Risk
DR	Risk of groundwater due to pressure from diffuse sources of pollution	2a Probably Not At Risk
DWR	Risk associated with exceedances of water quality above specific standards	2b Not At Risk
GDR	Groundwater dependant terrestrial ecosystems risk	1b Probably At Risk
GWR	General groundwater quality risk	1a At Risk
INR	Risk associated with saline intrusion into groundwater	2b Not At Risk
LR	Risk due to landfills sites/old closed dump sites	2b Not At Risk
MR	Mines risk	2b Not At Risk
NULL	Diffuse nitrates from agriculture risk	N/A
QR	Risk due to quarries	2b Not At Risk
RA	Revised risk assessment	1a At Risk
RPR	Risk associated with MRP loading to rivers	2b Not At Risk
SQR	Risk associated with dependant surface water quantitative status	2b Not At Risk
SWR	Overall risk associated with nutrient loadings to rivers and transitional and coastal waters	2a Probably Not At Risk
TNR	Risk associated with nitrate loading to transitional and coastal waters	2a Probably Not At Risk
UAR	Risk of groundwater due to pressures from urban areas	1a At Risk
UWR	Risk due to direct discharges of urban wastewater	2b Not At Risk

Risk

By 'risk' we mean the risk that a waterbody will not achieve good ecological or good chemical status/potential at least by 2015. To examine risk the various pressures acting on the waterbody were identified along with any evidence of impact on water status. Depending on the extent of the pressure and its potential for impact, and the amount of information available, the risk to the water body was placed in one of four categories: 1a at risk; 1b probably at risk; 2a probably not at risk; 2b not at risk. Note that '2008' after the risk category means that the risk assessment was revised in 2008. All other risks were determined as part of an earlier risk assessment in 2005.

You can read more about risk assessment in our 'WFD Risk Assessment Update' document in the RBMP document library, and other documents at www.wfdireland.ie (Directory 31 Risk Assessments).



Objectives Report	
Water Management Unit:	N/A
WaterBody Category:	Groundwater Waterbody
WaterBody Name:	Dublin Urban
WaterBody Code:	IE_EA_G_005
Overall Objective:	Protect
Heavily Modified:	No



Objectives Description		Result
Objectives information		
OB1	Prevent deterioration objective	No Status
OB2	Restore at least good status objective	No Status
OB3	Reduce chemical pollution objective	No Status
OB4	Protected areas objective	Protect
OBO	Overall objectives - objective	Protect

Extended timescales

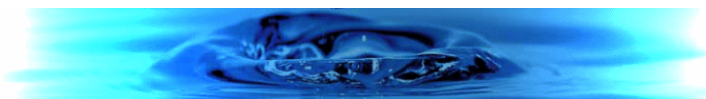
Extended timescales have been set for certain waters due to technical, economic, environmental or recovery constraints. Extended timescales are usually of one planning cycle (6 years, to 2021) but in some cases are two planning cycles (to 2027).

Objectives

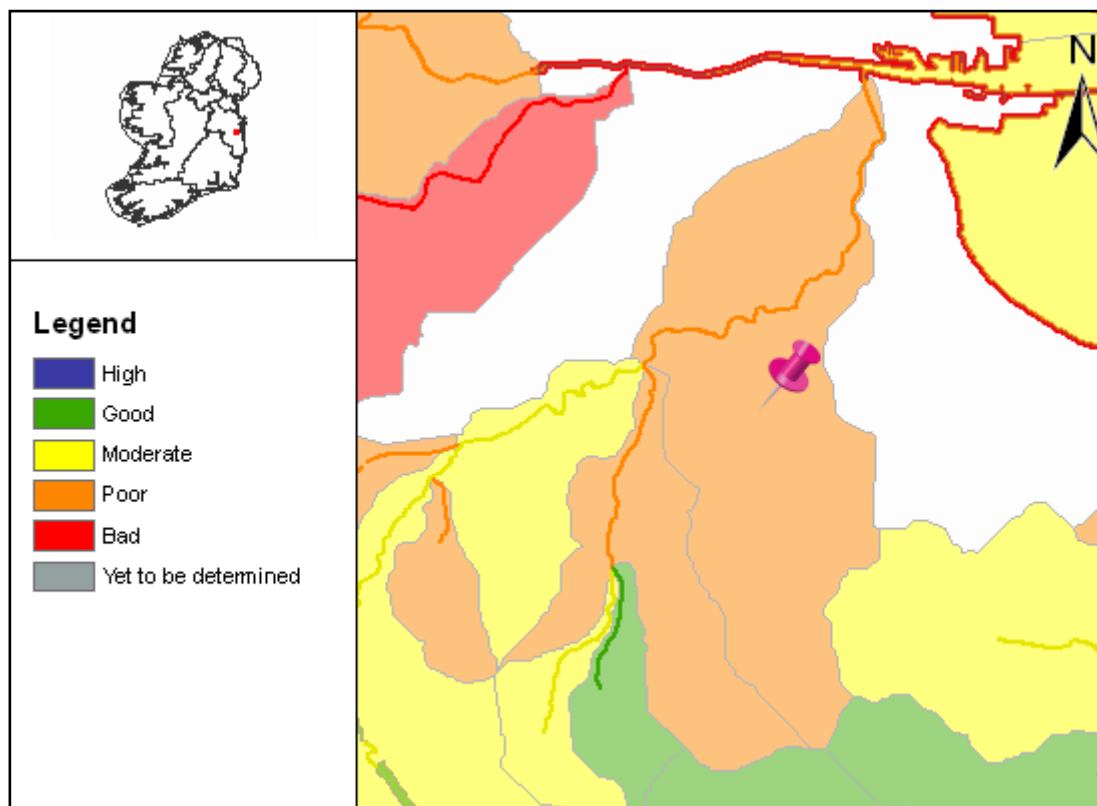
In general, we are required to ensure that our waters achieve at least good status/potential by 2015, and that their status does not deteriorate. Having identified the status of waters (this is given earlier in this report), the next stage is to set objectives for waters. Objectives consider waters that require protection from deterioration as well as waters that require restoration and the timescales needed for recovery. Four default objectives have been set initially:-

- Prevent Deterioration*
- Restore Good Status*
- Reduce Chemical Pollution*
- Achieve Protected Areas Objectives*

These objectives have been refined based on the measures available to achieve them, the latter's likely effectiveness, and consideration of cost-effective combinations of measures. Where it is considered necessary extended deadlines have been set for achieving objectives in 2021 or 2027.



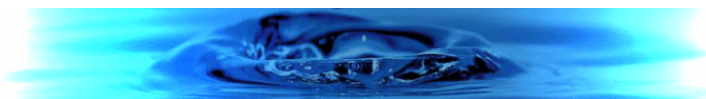
Full Report for Waterbody Dodder Lower



River Basin Management Plans (RBMPs) have been published for all River Basin Districts in Ireland in accordance with the requirements of the Water Framework Directive. The WaterMaps viewer is an integral part of the River Basin Management Plan and provides access to information at individual waterbody level and at Water Management Unit level for all the River Basin Districts in Ireland.

The following report provides summary plan information about the selected waterbody (indicated by the pin in the map above) relating to its status, risks, objectives, and measures proposed to retain status where this is adequate, or improve it where necessary. Waterbodies can relate to surface waters (these include rivers, lakes, estuaries [transitional waters], and coastal waters), or to groundwaters. Other relevant information not included in this report can be viewed using the WaterMaps viewer, including areas listed in the Register of Protected Areas.

You will find brief notes at the bottom of some of the individual report sheets that will help you in interpreting the information presented. More detailed information can be obtained in relation to all aspects of the RBMPs at www.wfdireland.ie.



Summary Information:

Water Management Unit: IE_EA_Dodder
WaterBody Category: River Waterbody
WaterBody Name: Dodder Lower
WaterBody Code: IE_EA_09_587
Overall Status: Poor
Overall Objective: Restore_2027
Overall Risk: 1a At Risk
Heavily Modified: No

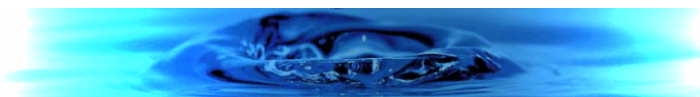


Poor

1a

Report data based upon final RBMP, 2009-2015.

The information provided above is a summary of the principal findings related to the selected waterbody. Further details and explanation of individual elements of the report are outlined in the following pages.



Status Report	
Water Management Unit:	IE_EA_Dodder
WaterBody Category:	River Waterbody
WaterBody Name:	Dodder Lower
WaterBody Code:	IE_EA_09_587
Overall Status Result:	Poor
Heavily Modified:	No



	Status Element Description	Result
Status information		
Q	Macroinvertebrate status	Poor
PC	General physico-chemical status	Moderate
FPQ	Freshwater Pearl Mussel / Macroinvertebrate status	N/A
DIA	Diatoms status	Poor
HYM	Hydromorphology status	N/A
FIS	Fish status	Good
SP	Specific Pollutants status (SP)	High
ES	Overall ecological status	Poor
CS	Overall chemical status (PAS)	Pass
EXT	Extrapolated status	N/A
MON	Monitored water body	YES
DON	Donor water bodies	N/A

n/a - not assessed

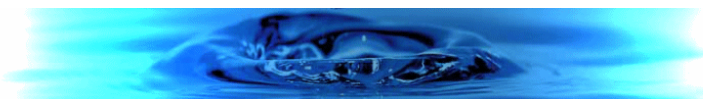
Status

By 'Status' we mean the condition of the water in the waterbody. It is defined by its chemical status and its ecological status, whichever is worse. Waters are ranked in one of 5 status classes: High, Good, Moderate, Poor, Bad. However, not all waterbodies have been monitored, and in such cases the status of a similar nearby waterbody has been used (extrapolated) to assign status. If this has been done the first line of the status report shows the code of the waterbody used to extrapolate.

You can read more about status and how it is measured in our RBMP Document Library at www.wfdireland.ie (Directory 15 Status).

Date Reported to Europe: July 2010

Date Report Created 10/02/2020

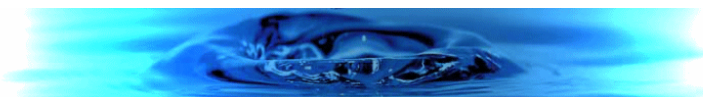


Risk Report

Water Management Unit: IE_EA_Dodder
WaterBody Category: River Waterbody
WaterBody Name: Dodder Lower
WaterBody Code: IE_EA_09_587
Overall Risk Result: **1a** At Risk
Heavily Modified: No



Risk Test Description		Risk	
Diffuse Risk Sources			
RD1	EPA diffuse model (2008)	1a	At Risk
RD2a	Road Wash - Soluble Copper	2b	Not At Risk
RD2b	Road Wash - Total Zinc	2b	Not At Risk
RD2c	Road Wash - Total Hydrocarbons	2b	Not At Risk
RD3	Railways	2b	Not At Risk
RD4a	Forestry - Acidification (2008)	2a	Probably Not At Risk
RD4b	Forestry - Suspended Solids (2008)	2b	Not At Risk
RD4c	Forestry - Eutrophication (2008)	2a	Probably Not At Risk
RD5	Overall Unsewered (2008)	2b	Not At Risk
RD5a	Unsewered Areas - Pathogens (2008)	2a	Probably Not At Risk
RD5b	Unsewered Phosphorus (2008)	2b	Not At Risk
RD6a	Arable	2b	Not At Risk
RD6b	Sheep Dip	2b	Not At Risk
RD6c	Forestry - Dangerous Substances	2b	Not At Risk
RDO	Diffuse Overall -Worst Case (2008)	1a	At Risk
Hydrology			
RHY1	Water balance - Abstraction	1a	At Risk
Morphological Risk Sources			
RM1	Channelisation (2008)	2b	Not At Risk
RM2	Embankments (2008)	2b	Not At Risk
RM3	Impoundments	2b	Not At Risk
RM4	Water Regulation	2b	Not At Risk
RM5	Intensive Landuse		N/A
RMO	Morphology Overall - Worst Case (2008)	2b	Not At Risk
Overall Risk			
RA	Rivers Overall - Worst Case (2008)	1a	At Risk

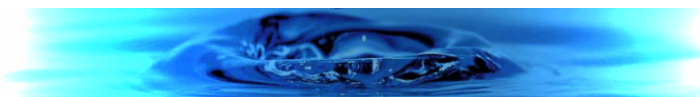


Point Risk Sources		
RP1	WWTPs (2008)	2b Not At Risk
RP2	CSOs	1a At Risk
RP3	IPPCs (2008)	2b Not At Risk
RP4	Section 4s (2008)	2b Not At Risk
RP5	WTPs/Mines/Quarries/Landfills	N/A
RPO	Overall Risk from Point Sources - Worst Case (2008)	1a At Risk
Q Value		
Q	EPA Q rating and Margaritifera Assessment	N/A
Q/RDI or Point/Diffuse		
QPD	Q class/EPA Diffuse Model or worst case of Point and Diffuse (2008)	1a At Risk
Rivers Direct Impacts		
RDI1	Rivers Direct Impacts - Dangerous Substances	N/A

Risk

By 'risk' we mean the risk that a waterbody will not achieve good ecological or good chemical status/potential at least by 2015. To examine risk the various pressures acting on the waterbody were identified along with any evidence of impact on water status. Depending on the extent of the pressure and its potential for impact, and the amount of information available, the risk to the water body was placed in one of four categories: 1a at risk; 1b probably at risk; 2a probably not at risk; 2b not at risk. Note that '2008' after the risk category means that the risk assessment was revised in 2008. All other risks were determined as part of an earlier risk assessment in 2005.

You can read more about risk assessment in our 'WFD Risk Assessment Update' document in the RBMP document library, and other documents at www.wfdireland.ie (Directory 31 Risk Assessments).



Objectives Report

Water Management Unit: IE_EA_Dodder
WaterBody Category: River Waterbody
WaterBody Name: Dodder Lower
WaterBody Code: IE_EA_09_587
Overall Objective: Restore_2027
Heavily Modified: No



Objectives Description		Result
Objectives information		
OB1	Prevent deterioration objective	No Status
OB2	Restore at least good status objective	Restore_2027
OB3	Reduce chemical pollution objective	Protect
OB4	Protected areas objective	No Status
OB5	Northern Ireland Environment Agency objective	No Status
OBO	Overall objectives	Restore_2027

Extended timescales

Extended timescales have been set for certain waters due to technical, economic, environmental or recovery constraints. Extended timescales are usually of one planning cycle (6 years, to 2021) but in some cases are two planning cycles (to 2027).

Objectives

In general, we are required to ensure that our waters achieve at least good status/potential by 2015, and that their status does not deteriorate. Having identified the status of waters (this is given earlier in this report), the next stage is to set objectives for waters. Objectives consider waters that require protection from deterioration as well as waters that require restoration and the timescales needed for recovery. Four default objectives have been set initially:-

Prevent Deterioration
Restore Good Status
Reduce Chemical Pollution
Achieve Protected Areas Objectives

These objectives have been refined based on the measures available to achieve them, the latter's likely effectiveness, and consideration of cost-effective combinations of measures. Where it is considered necessary extended deadlines have been set for achieving objectives in 2021 or 2027.

APPENDIX 3 – Window Sample Records





Machine : Geotech 10		Dimensions 88mm to 2.00m 68mm to 2.40m		Ground Level (mOD)		Client DBFL		Job Number 9338-12-19	
Method : Drive-in Windowless Sampler		Location		Dates 16/01/2020		Project Contractor GII		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.70	EN				0.30 0.30 (0.20) 0.50	TOPSOIL. MADE GROUND: Brown slightly sandy slightly gravelly Clay with redbrick mortar and charcoal fragments. Firm light brown grey mottled slightly sandy slightly gravelly CLAY.		
1.70	EN				1.55 (0.85)	Stiff brown grey slightly sandy gravelly CLAY with occasional sub-angular to sub-rounded cobbles.		
2.40	EN				2.40	Complete at 2.40m		

Remarks Refusal at 2.40m BGL due to obstruction, possible boulder. Borehole backfilled upon completion.								Scale (approx) 1:25		Logged By NM	
								Figure No. 9338-12-19.WS01			



Machine : Geotech 10		Dimensions 88mm to 2.00m 68mm to 2.54m		Ground Level (mOD)		Client DBFL		Job Number 9338-12-19	
Method : Drive-in Windowless Sampler		Location		Dates 16/01/2020		Project Contractor GII		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.70	EN				0.40	TOPSOIL.		
					0.40 (0.30)	Firm light brown slightly sandy slightly gravelly CLAY with one sub-angular cobble.		
1.70	EN				0.70 (0.30)	No recovery.		
					1.00 (1.20)	Firm to stiff light brown grey mottled slightly sandy slightly gravelly CLAY with occasional sub-angular to sub-rounded cobbles.		
2.50	EN				2.20 (0.34)	Stiff brown grey slightly sandy gravelly CLAY with occasional sub-angular to sub-rounded cobbles.		
					2.54	Complete at 2.54m		

Remarks Refusal at 2.54m BGL due to obstruction, possible boulder. Borehole backfilled upon completion.	Scale (approx)	Logged By
	1:25	NM
	Figure No. 9338-12-19.WS02	



Machine : Geotech 10 Method : Drive-in Windowless Sampler		Dimensions 88mm to 2.00m 68mm to 2.70m	Ground Level (mOD)	Client DBFL	Job Number 9338-12-19
		Location	Dates 16/01/2020	Project Contractor GII	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.70	EN				(0.15)	TOPSOIL.		
					(0.15)	POSSIBLE MADE GROUND: Brown slightly sandy slightly gravelly Clay.		
					(0.15)	Firm to stiff light brown grey mottled slightly sandy slightly gravelly CLAY with rare sub-angular to sub-rounded cobbles.		
1.70	EN				(0.45)	No recovery.		
					(0.25)	Stiff light brown grey mottled slightly sandy slightly gravelly CLAY with rare sub-angular to sub-rounded cobbles.		
2.70	EN				(1.10)			
					(0.60)	Brown dark grey slightly sandy gravelly CLAY with occasional sub-angular to sub-rounded cobbles.		
					2.70	Complete at 2.70m		

Remarks Refusal at 2.70m BGL due to obstruction, possible boulder. Borehole backfilled upon completion.	Scale (approx) 1:25	Logged By NM
	Figure No. 9338-12-19.WS03	



Machine : Geotech 10 Method : Drive-in Windowless Sampler	Dimensions 88mm to 2.00m	Ground Level (mOD)	Client DBFL	Job Number 9338-12-19
	Location	Dates 17/01/2020	Project Contractor GII	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.70	EN				0.08 0.08 (0.32) 0.40	TARMACADAM MADE GROUND: Grey angular Gravel. Firm to stiff light brown grey mottled slightly sandy gravelly CLAY.		
1.70	EN				(1.30) 1.70 (0.30) 2.00	No recovery. Complete at 2.00m		

Remarks Refusal at 2.00m BGL due to obstruction, possible boulder. Borehole backfilled upon completion.	Scale (approx)	Logged By
	1:25	NM
	Figure No. 9338-12-19.WS04	



Machine : Geotech 10 Method : Drive-in Windowless Sampler	Dimensions 88mm to 2.00m	Ground Level (mOD)	Client DBFL	Job Number 9338-12-19
	Location	Dates 16/01/2020	Project Contractor GII	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.70	EN				0.40	TOPSOIL		
1.70	EN				1.60	Firm to stiff light brown grey mottled slightly sandy gravelly CLAY with occasional sub-rounded cobbles.		
					2.00	Complete at 2.00m		

Remarks Refusal at 2.00m BGL due to obstruction, possible boulder. Borehole backfilled upon completion.	Scale (approx)	Logged By
	1:25	NM
	Figure No. 9338-12-19.WS05	



Machine : Geotech 10 Method : Drive-in Windowless Sampler	Dimensions 88mm to 2.00m	Ground Level (mOD)	Client DBFL	Job Number 9338-12-19
	Location	Dates 16/01/2020	Project Contractor GII	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.70	EN				0.40	TOPSOIL		
1.70	EN				1.60	Firm to stiff light brown grey mottled slightly sandy gravelly CLAY with occasional sub-rounded cobbles.		
					2.00	Complete at 2.00m		

Remarks Refusal at 2.00m BGL due to obstruction, possible boulder. Borehole backfilled upon completion.	Scale (approx)	Logged By
	1:25	NM
	Figure No. 9338-12-19.WS06	



Machine : Geotech 10 Method : Drive-in Windowless Sampler		Dimensions 88mm to 2.00m 68mm to 2.60m	Ground Level (mOD)	Client DBFL	Job Number 9338-12-19
		Location	Dates 16/01/2020	Project Contractor GII	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.70	EN				0.40	TOPSOIL		
					0.40	Firm to stiff light brown grey mottled slightly sandy gravelly CLAY.		
1.70	EN				(1.90)			
					2.30	Stiff grey slightly sandy gravelly CLAY.		
					(0.30)			
2.60	EN				2.60	Complete at 2.60m		

Remarks Refusal at 2.60m BGL due to obstruction, possible boulder. Borehole backfilled upon completion.	Scale (approx) 1:25	Logged By NM
	Figure No. 9338-12-19.WS07	



Machine : Geotech 10		Dimensions 88mm to 2.00m 68mm to 2.66m		Ground Level (mOD)		Client DBFL		Job Number 9338-12-19	
Method : Drive-in Windowless Sampler		Location		Dates 17/01/2020		Project Contractor GII		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.70	EN				0.08 0.08 0.12 0.20 0.25 0.45	TARMACADAM. MADE GROUND: Grey angular slightly clayey Gravel. MADE GROUND: Dark brown slightly sandy slightly gravelly Clay with mortar redbrick and charcoal fragments. Firm to stiff light brown slightly sandy gravelly CLAY.		
1.70	EN				(1.55)			
2.60	EN				2.00 (0.66) 2.66	Stiff dark grey slightly sandy gravelly CLAY. Complete at 2.66m		

Remarks Refusal at 2.66m BGL due to obstruction, possible boulder. Borehole backfilled upon completion.	Scale (approx)	Logged By
	1:25	NM
Figure No. 9338-12-19.WS08		



Machine : Geotech 10 Method : Drive-in Windowless Sampler		Dimensions 88mm to 2.00m 68mm to 2.60m	Ground Level (mOD)	Client DBFL	Job Number 9338-12-19
		Location	Dates 16/01/2020	Project Contractor GII	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.70	EN				0.00 - 0.40	TOPSOIL.		
					0.40 - 0.50	MADE GROUND: Dark brown slightly sandy slightly gravelly Clay with mortar and redbrick fragments. Firm light brown slightly sandy gravelly CLAY with occasional sub-angular to sub-rounded cobbles.		
1.70	EN				0.50 - 1.00			
					1.00 - 1.50	Firm to stiff light brown grey slightly sandy gravelly CLAY.		
2.60	EN				1.50 - 2.20	Stiff dark grey slightly sandy gravelly CLAY.		
					2.20 - 2.60	Complete at 2.60m		

Remarks Refusal at 2.60m BGL due to obstruction, possible boulder. Borehole backfilled upon completion.	Scale (approx) 1:25	Logged By NM
	Figure No. 9338-12-19.WS09	



Machine : Geotech 10		Dimensions 88mm to 2.00m 68mm to 2.50m		Ground Level (mOD)		Client DBFL		Job Number 9338-12-19	
Method : Drive-in Windowless Sampler		Location		Dates 16/01/2020		Project Contractor GII		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.70	EN				(0.35)	TOPSOIL.		
					0.35 (0.15) 0.50	MADE GROUND: Light brown slightly sandy slightly gravelly Clay with mortar and redbrick fragments.		
1.70	EN				(1.80)	Firm to stiff brown grey slightly sandy gravelly CLAY with occasional sub-angular to sub-rounded cobbles.		
2.30	EN				2.30 (0.20) 2.50	No recovery.		
						Complete at 2.50m		

Remarks Refusal at 2.50m BGL due to obstruction, possible boulder. Borehole backfilled upon completion.	Scale (approx)	Logged By
	1:25	NM
	Figure No. 9338-12-19.WS10	



Machine : Geotech 10 Method : Drive-in Windowless Sampler		Dimensions 88mm to 2.00m 68mm to 2.30m	Ground Level (mOD)	Client DBFL	Job Number 9338-12-19
		Location	Dates 16/01/2020	Project Contractor GII	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.40)	TOPSOIL.		
0.70	EN				0.40 0.40	MADE GROUND: Brown slightly sandy slightly gravelly Clay with mortar and redbrick fragments. Firm to stiff brown grey slightly sandy gravelly CLAY with occasional sub-angular to sub-rounded cobbles.		
1.70	EN				(1.80)			
2.20	EN				2.20 (0.10) 2.30	No recovery. Complete at 2.30m		

Remarks Refusal at 2.30m BGL due to obstruction, possible boulder. Borehole backfilled upon completion.	Scale (approx) 1:25	Logged By NM
	Figure No. 9338-12-19.WS11	



Machine : Geotech 10		Dimensions 88mm to 2.00m 68mm to 2.57m		Ground Level (mOD)		Client DBFL		Job Number 9338-12-19	
Method : Drive-in Windowless Sampler		Location		Dates 17/01/2020		Project Contractor GII		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.70	EN				(0.08)	TARMACADAM.		
					(0.27)	MADE GROUND: Grey angular slightly clayey Gravel.		
1.70	EN				0.35	Firm to stiff light brown slightly sandy slightly gravelly CLAY.		
					(0.85)			
2.50	EN				1.20	Stiff brown slightly sandy gravelly CLAY with occasional sub-angular to sub-rounded cobbles		
					(1.00)			
					2.20	Stiff to very stiff dark grey slightly sandy gravelly CLAY.		
					(0.37)			
					2.57	Complete at 2.57m		

Remarks Refusal at 2.57m BGL due to obstruction, possible boulder. Borehole backfilled upon completion.	Scale (approx)	Logged By
	1:25	NM
	Figure No. 9338-12-19.WS12	



Machine : Geotech 10		Dimensions 88mm to 1.50m	Ground Level (mOD)	Client DBFL	Job Number 9338-12-19
Method : Drive-in Windowless Sampler		Location	Dates 17/01/2020	Project Contractor GII	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.70	EN				(0.30)	TOPSOIL.		
					0.30 (0.20)	MADE GROUND: Brown slightly sandy slightly gravelly Clay with redbrick mortar and bone fragments.		
1.40	EN				0.50	Firm to stiff brown grey mottled slightly sandy gravelly CLAY.		
					(0.90)			
					1.40 (0.10) 1.50	No recovery.		
						Complete at 1.50m		

Remarks Refusal at 1.50m BGL due to obstruction, possible boulder. Borehole backfilled upon completion.	Scale (approx)	Logged By
	1:25	NM
	Figure No. 9338-12-19.WS13	



Machine : Geotech 10		Dimensions 88mm to 2.00m 68mm to 2.75m		Ground Level (mOD)		Client DBFL		Job Number 9338-12-19	
Method : Drive-in Windowless Sampler		Location		Dates 17/01/2020		Project Contractor GII		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.70	EN				(0.30)	TOPSOIL.		
					0.30 (0.20)	MADE GROUND: Brown slightly sandy slightly gravelly Clay with redbrick and charcoal fragments.		
					0.50	Firm brown grey mottled slightly sandy gravelly CLAY with occasional sub-angular to sub-rounded cobbles.		
1.70	EN				(1.50)			
2.70	EN				2.00	Stiff to very stiff dark grey slightly sandy gravelly CLAY.		
					(0.75)			
					2.75	Complete at 2.75m		

Remarks Refusal at 2.75m BGL due to obstruction, possible boulder. Borehole backfilled upon completion.	Scale (approx) 1:25	Logged By NM

APPENDIX 4 – Trial Pit Records





Machine : JCB 3CX Method : Trial Pit		Dimensions 0.6m W x 1.2m L	Ground Level (mOD)	Client DBFL	Job Number 9338-12-19
		Location 716845.6 E 731205.5 N	Dates 17/01/2020	Project Contractor GII	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20)	TOPSOIL.		
					0.20	Firm light brown slightly sandy slightly gravelly CLAY.		
					(0.55)			
					0.75	Firm to stiff brown slightly sandy slightly gravelly CLAY with occasional sub-angular cobbles.		
					(0.30)			
					1.05	Complete at 1.05m		

Plan .	Remarks Groundwater not encountered during excavation. Trial pit stable. Trial pit terminated at 1.05m BGL on exposing the foundation and backfilled upon completion.					
	<table border="1"> <tr> <td>Scale (approx)</td> <td>Logged By</td> <td>Figure No.</td> </tr> <tr> <td>1:25</td> <td>NM</td> <td>9338-12-19.TP02</td> </tr> </table>	Scale (approx)	Logged By	Figure No.	1:25	NM
Scale (approx)	Logged By	Figure No.				
1:25	NM	9338-12-19.TP02				



Machine : JCB 3CX Method : Trial Pit		Dimensions 0.6m W x 1.4m L	Ground Level (mOD)	Client DBFL	Job Number 9338-12-19
Location 716981.8 E 731146 N		Dates 17/01/2020	Project Contractor GII	Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	MADE GROUND: Topsoil with roots plastic redbrick and concrete fragments.		
					0.30	MADE GROUND: Brown slightly sandy slightly gravelly CLAY with root concrete and fragments.		
					(0.90)			
					1.20	Complete at 1.20m		

Plan .	Remarks Groundwater not encountered during excavation. Trial pit stable. Trial pit terminated at 1.20m BGL due to a concrete protection and backfilled upon completion.		
	Scale (approx) 1:25	Logged By NM	Figure No. 9338-12-19.TP03



Machine : JCB 3CX Method : Trial Pit		Dimensions 0.6m W x 1.5m L	Ground Level (mOD)	Client DBFL	Job Number 9338-12-19
Location 717097.4 E 731276.8 N		Dates 17/01/2020	Project Contractor GII	Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20)	TOPSOIL with roots.		
					0.20	Firm dark brown slightly sandy slightly gravelly CLAY with root fragments.		
					(0.50)			
					0.70	Firm to stiff light brown slightly sandy slightly gravelly CLAY.		
					(0.70)			
					1.40	Complete at 1.40m		

Plan .	Remarks Groundwater not encountered during excavation. Trial pit stable. Trial pit terminated at 1.40m BGL on exposing the foundation and backfilled upon completion.		
	Scale (approx) 1:25	Logged By NM	Figure No. 9338-12-19.TP04



Machine : JCB 3CX Method : Trial Pit		Dimensions 0.6m W x 1.5m L	Ground Level (mOD)	Client DBFL	Job Number 9338-12-19
Location 717043.4 E 731334.3 N		Dates 17/01/2020	Project Contractor GII	Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.70)	TOPSOIL with roots.		
					0.70	Firm to stiff brown slightly sandy slightly gravelly CLAY.		
					(0.80)			
					1.50	Complete at 1.50m		

Plan .	Remarks Groundwater not encountered during excavation. Trial pit stable. Trial pit terminated at 1.50m BGL on exposing the foundation and backfilled upon completion.		
	Scale (approx) 1:25	Logged By NM	Figure No. 9338-12-19.TP05



Machine : JCB 3CX Method : Trial Pit		Dimensions 0.6m W x 1.2m L	Ground Level (mOD)	Client DBFL	Job Number 9338-12-19
Location 717005.1 E 731344 N		Dates 17/01/2020	Project Contractor GII	Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.25)	TOPSOIL with small concrete and plastic fragments.		
					0.25	Firm dark brown slightly sandy slightly gravelly CLAY.		
					(0.75)			
					1.00	Complete at 1.00m		

Plan .	Remarks Groundwater not encountered during excavation. Trial pit stable. Trial pit terminated at 1.0m BGL on exposing the foundation and backfilled upon completion.					
	<table border="1"> <tr> <td>Scale (approx)</td> <td>Logged By</td> <td>Figure No.</td> </tr> <tr> <td>1:25</td> <td>NM</td> <td>9338-12-19.TP06</td> </tr> </table>	Scale (approx)	Logged By	Figure No.	1:25	NM
Scale (approx)	Logged By	Figure No.				
1:25	NM	9338-12-19.TP06				



Machine : JCB 3CX Method : Trial Pit		Dimensions 0.6m W x 1.3m L	Ground Level (mOD)	Client DBFL	Job Number 9338-12-19
Location 716981.4 E 731292.7 N		Dates 17/01/2020	Project Contractor GII	Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.25)	TOPSOIL.		
					0.25	Firm to stiff light brown slightly sandy slightly gravelly CLAY.		
					(0.90)			
					1.15	Complete at 1.15m		

Plan .	Remarks Groundwater not encountered during excavation. Trial pit stable. Trial pit terminated at 1.15m BGL on exposing the foundation and backfilled upon completion.		
	Scale (approx) 1:25	Logged By NM	Figure No. 9338-12-19.TP07



Machine : JCB 3CX Method : Trial Pit		Dimensions 0.6m W x 1.5m L	Ground Level (mOD)	Client DBFL	Job Number 9338-12-19
Location 716888.6 E 731317.4 N		Dates 17/01/2020	Project Contractor GII	Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.40)	MADE GROUND: Topsoil with roots plastic redbrick and concrete fragments.		
					0.40 (0.30)	Firm light brown grey slightly sandy slightly gravelly CLAY.		
					0.70 (0.50)	Firm to stiff light brown slightly sandy slightly gravelly CLAY.		
					1.20	Complete at 1.20m		

Plan .	Remarks Groundwater not encountered during excavation. Trial pit stable. Trial pit terminated at 1.20m BGL on exposing the foundation and backfilled upon completion.		
	Scale (approx) 1:25	Logged By NM	Figure No. 9338-12-19.TP08



Machine : 3T 360 Method : Trial Pit	Dimensions 0.6m W x 2.0m L	Ground Level (mOD) 20.90	Client DBFL	Job Number 9338-12-19
	Location (dGPS) 716894.6 E 731152.8 N	Dates 27/01/2020	Project Contractor GII	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.50	B			20.75	(0.15) 0.15	Topsoil		
					(0.45)	Firm to stiff brown mottled grey slightly sandy slightly gravelly CLAY with occasional subangular cobbles. Gravel is angular to subrounded fine to coarse.		
1.00	B			20.30	0.60	Stiff greyish brown slightly sandy slightly gravelly CLAY with occasional subangular cobbles and boulders. Gravel is angular to subrounded fine to coarse.		
					(0.80)			
				19.50	1.40	Complete at 1.40m		

Plan .	Remarks Groundwater encountered at 1.40m Trial pit stable. Trial pit terminated at 1.40m BGL on exposing the foundation and backfilled upon completion.					
	<table border="1"> <tr> <td>Scale (approx)</td> <td>Logged By</td> <td>Figure No.</td> </tr> <tr> <td>1:25</td> <td>PC</td> <td>9338-12-19.TP09</td> </tr> </table>	Scale (approx)	Logged By	Figure No.	1:25	PC
Scale (approx)	Logged By	Figure No.				
1:25	PC	9338-12-19.TP09				



Machine : 3T 360 Method : Trial Pit		Dimensions 0.6m W x 1.1m L	Ground Level (mOD)	Client DBFL	Job Number 9338-12-19
		Location (Handheld GPS) 716916.4 E 731157.9 N	Dates 27/01/2020	Project Contractor GII	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.20	B				(0.15)	Topsoil		
					0.15	MADE GROUND: Brown slightly gravelly sandy Clay with occasional fragments of metal and red brick.		
					(0.25)			
					0.40	Firm to stiff brown mottled grey slightly sandy slightly gravelly CLAY with occasional subangular cobbles. Gravel is angular to subrounded fine to coarse.		
					(0.40)			
					0.80	Stiff brown mottled grey slightly sandy slightly gravelly CLAY with occasional subangular cobbles and boulders. Gravel is angular to subrounded fine to coarse.		
					(0.40)			
					1.20	Complete at 1.20m		

Plan .	Remarks Groundwater not encountered during excavation. Trial pit stable. Trial pit terminated at 1.20m BGL on exposing the foundation and backfilled upon completion.	
		Scale (approx) 1:25



Machine : 3T 360 Method : Trial Pit	Dimensions 0.6m W x 1.6m L	Ground Level (mOD) 20.81	Client DBFL	Job Number 9338-12-19
	Location (dGPS) 716935.8 E 731174.6 N	Dates 27/01/2020	Project Contractor GII	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.80	B			20.66	(0.15)	Topsoil		
					(0.15)	MADE GROUND: Brown slightly gravelly sandy Clay with occasional fragments of red brick.		
					(0.15)	Stiff brown mottled grey slightly sandy slightly gravelly CLAY with occasional subangular cobbles and boulders. Gravel is angular to subrounded fine to coarse.		
				20.51	0.30			
					(0.70)			
				19.81	1.00	Complete at 1.00m		

Plan .	Remarks Groundwater not encountered during excavation. Trial pit stable. Trial pit terminated at 1.00m BGL on exposing the foundation and backfilled upon completion.	
		Scale (approx) 1:25



Machine : 3T 360 Method : Trial Pit	Dimensions 0.6m W x 1.0m L	Ground Level (mOD) 21.95	Client DBFL	Job Number 9338-12-19
	Location (dGPS) 716905.1 E 731084.8 N	Dates 27/01/2020	Project Contractor GII	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.50	B			21.80	(0.15)	Topsoil		
					0.15	MADE GROUND: Brown slightly gravelly sandy Clay with rootlets and occasional fragments of glass and red brick.		
1.00	B			21.35	(0.45)			
					0.60	Stiff brown mottled grey slightly sandy slightly gravelly CLAY with occasional subangular cobbles. Gravel is angular to subrounded fine to coarse. Possible madeground.		
				20.65	1.30	Complete at 1.30m		

Plan .	Remarks Groundwater not encountered during excavation. Trial pit stable. Trial pit terminated at 1.30m BGL on exposing the foundation and backfilled upon completion.	
		Scale (approx) 1:25

APPENDIX 5 – Cable Percussion Borehole Records





Machine : Dando 2000		Casing Diameter 200mm cased to 5.70m		Ground Level (mOD) 18.33		Client DBFL		Job Number 9338-12-19	
Method : Cable Percussion		Location (dGPS) 717027.6 E 731285.9 N		Dates 04/03/2020-05/03/2020		Project Contractor GII		Sheet 1/1	

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.50	B				18.03	(0.30) 0.30	Dark brown sandy slightly gravelly TOPSOIL with occasional rootlets.		
1.00-1.45 1.00	SPT(C) N=11 B			1,2,2,3,3,3	17.53	(0.50) 0.80	Soft light brown slightly sandy slightly gravelly CLAY.		
2.00-2.45 2.00	SPT(C) N=19 B			2,3/4,5,5,5	15.83	(1.70) 2.50	Firm to stiff light brown slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles.		
3.00-3.45 3.00	SPT(C) N=40 B			3,5/7,9,11,13			Very stiff dark grey slightly silty slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles.		
4.00-4.45 4.00	SPT(C) N=39 B			5,6/7,9,9,14		(3.20)			
5.00-5.38 5.00	SPT(C) 50/225 B			6,9/13,17,19,1	12.63	5.70	Refusal at 5.70m		

Remarks No groundwater encountered during drilling Borehole backfilled on completion. Borehole terminated at 5.70m BGL due to obstruction, possible boulder or rock Chiselling from 5.70m to 5.70m for 1 hour.	Scale (approx)	Logged By
	1:50	PM
Figure No. 9338-12-19.BH01		



Machine : Dando 2000	Casing Diameter 200mm cased to 7.00m	Ground Level (mOD) 18.40	Client DBFL	Job Number 9338-12-19
Method : Cable Percussion	Location (dGPS) 717045.9 E 731268.6 N	Dates 06/03/2020	Project Contractor GII	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.50	B				18.10	(0.30) 0.30	Dark brown slightly sandy slightly gravelly TOPSOIL with occasional rootlets.			
1.00-1.45 1.00	SPT(C) N=14 B			1,2/3,3,4,4	17.30	(0.80) 1.10	Soft light brown slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles.			
2.00-2.45 2.00	SPT(C) N=18 B			2,3/4,5,4,5	16.10	(1.20) 2.30	Firm to stiff light brown slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles.			
3.00-3.45 3.00	SPT(C) N=33 B			4,6/7,8,9,9			Very stiff dark grey slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles.			
4.00-4.40 4.00	SPT(C) 50/250 B			6,8/11,15,17,7		(4.70)				
5.00-5.40 5.00	SPT(C) 50/250 B			7,10/13,15,17,5						
6.00-6.30 6.00	SPT(C) 50/150 B			8,10/17,21,12						
7.00-7.00 7.00	SPT(C) 25*/0 50/0 B			25/50	11.40	7.00	Refusal at 7.00m			

Remarks No groundwater encountered during drilling Slotted pipe with pea gravel surround from 7.0m BGL to 1.0m BGL, plain pipe with bentonite seal from 1.0m BGL to GL, finished with an upright cover Borehole terminated at 7.00m BGL due to obstruction, possible boulder or rock Chiselling from 7.00m to 7.00m for 1 hour.	Scale (approx)	Logged By
	1:50	PM
Figure No. 9338-12-19.BH02		



Machine : Dando 2000, Beretta T44 Method : Cable Percussion with Rotary follow on	Casing Diameter 200mm cased to 7.20m 63mm cased to 20.00m	Ground Level (mOD) 19.67	Client DBFL	Job Number 9338-12-19
	Location 716904.5 E 731274.9 N	Dates 06/03/2020	Project Contractor GII	Sheet 1/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.50	B				19.37	(0.30) 0.30	Dark brown slightly sandy slightly gravelly TOPSOIL with occasional rootlets.			
1.00 1.00-1.45	B SPT(C) N=13			1,2/3,2,4,4	18.77 18.47	(0.60) 0.90 (0.30) 1.20	Soft light brown slightly sandy slightly gravelly CLAY. Soft light brown mottled orange grey slightly sandy slightly gravelly CLAY.			
2.00 2.00-2.45	B SPT(C) N=22			7,4/5,6,6,5		(1.10)	Firm to stiff light brown slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles. Some yellow and grey mottling.			
3.00 3.00-3.31	B SPT(C) 50/160			7,12/18,25,7	17.37	2.30	Very stiff dark grey slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles.			
4.00 4.00-4.45	B SPT(C) N=39			7,10/8,9,11,11		(4.20)				
5.00 5.00-5.45	B SPT(C) N=47			6,8/10,12,12,13						
6.00 6.00-6.45	B SPT(C) N=50			6,9/10,11,14,15						
7.00 7.00-7.22 7.00	TCR SCR 75	RQD	FI	10,20/50 B SPT(C) 50/70	13.17 12.67	6.50 (0.50) 7.00	Very stiff brown slightly sandy gravelly CLAY. Very stiff brown slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles.			
8.20-8.28 8.20				22,3/50 SPT(C) 25*/75 50/0		(4.20)				
9.70-9.78 9.70				22,3/50 SPT(C) 25*/75 50/0						

Remarks
 No groundwater encountered during cable percussion drilling.
 Cable percussion to 7.00m BGL with Rotary core follow on to 20.00m BGL.
 Slotted pipe installed from 8.5m BGL to 3m BGL with pea gravel filter zone from 8.5m BGL to 1.0m BGL and bentonite seal from 1.0m BGL to GL, finished with an upright cover
 Chiselling from 7.20m to 7.20m for 1 hour.

Scale (approx) 1:50	Logged By PM, CB
Figure No. 9338-12-19.BH03	



Machine : Dando 2000, Beretta T44 Flush : Water Core Dia : 63 mm Method : Cable Percussion with Rotary follow on	Casing Diameter 200mm cased to 7.20m 63mm cased to 20.00m	Ground Level (mOD) 19.67	Client DBFL	Job Number 9338-12-19
	Location 716904.5 E 731274.9 N	Dates 06/03/2020	Project Contractor GII	Sheet 2/2

Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
11.20-11.28 11.20	93				26/50 SPT(C) 26*/75 50/0	8.47	11.20	Very stiff brown slightly sandy gravelly CLAY with some subangular to subrounded cobbles. Gravel is subangular to subrounded fine to coarse.			
12.70-12.70 12.70	67			25/50 SPT(C) 25*/0 50/0		(2.20)					
14.20-14.20 14.20	73				25/50 SPT(C) 25*/0 50/0	6.27	13.40	Very stiff grey slightly sandy gravelly CLAY with many subangular to subrounded cobbles and boulders. Gravel is subangular to subrounded fine to coarse.			
15.70-15.78 15.70	73			22,3/50 SPT(C) 25*/75 50/0		(3.80)					
17.20-17.28 17.20	100				21,4/50 SPT(C) 25*/75 50/0	2.47	17.20	Poor recovery. Recovery consists of slightly clayey slightly gravelly clayey subangular to subrounded COBBLES of limestone.			
18.70	33					1.22	18.45				
20.00	62					-0.33	20.00	Poor recovery. Recovery consists of COBBLES of limestone. Presumed rock.			

Remarks	Scale (approx)	Logged By
	1:50	PM, CB
	Figure No. 9338-12-19.BH03	



Machine : Dando 2000	Casing Diameter 200mm cased to 7.30m	Ground Level (mOD) 19.44	Client DBFL	Job Number 9338-12-19
Method : Cable Percussion	Location 716966.1 E 731262.2 N	Dates 10/03/2020	Project Contractor GII	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.50	B				19.24	(0.20) 0.20	Dark brown sandy slightly gravelly TOPSOIL with occasional rootlets.		
1.00-1.45 1.00	SPT(C) N=8 B			1,1/2,1,2,3	18.54	(0.70) 0.90	Soft to firm light brown mottled grey slightly sandy slightly gravelly CLAY.		
2.00-2.02 2.00	SPT(C) 25*/20 50/0 B			25/50	18.04	(0.50) 1.40	Soft to firm light brown slightly sandy slightly gravelly CLAY.		
3.00-3.45 3.00	SPT(C) N=47 B			6,8/11,12,13,11	16.94	(1.10) 2.50	Firm to stiff light brown slightly sandy slightly gravelly CLAY.		
4.00-4.45 4.00	SPT(C) N=50 B			6,8/11,13,14,12		(4.40)	Very stiff, dark grey slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles.		
5.00-5.43 5.00	SPT(C) 50/275 B			7,8/10,15,16,9					
6.00-6.37 6.00	SPT(C) 50/215 B			9,10/14,16,20					
7.00-7.35 7.00	SPT(C) 50/195 B			10,10/15,20,15	12.54	6.90 (0.40) 7.30	Very stiff greyish brown slightly silty slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles.		
					12.14		Refusal at 7.30m		

Remarks No groundwater encountered during drilling Borehole backfilled on completion. Borehole terminated at 7.30m BGL due to obstruction, possible boulder or rock Chiselling from 2.50m to 2.62m for 0.75 hours. Chiselling from 7.30m to 7.30m for 1 hour.	Scale (approx)	Logged By
	1:50	PM
	Figure No. 9338-12-19.BH04	



Machine : Dando 2000, Beretta T44 Method : Cable Percussion with Rotary follow on	Casing Diameter 200mm cased to 5.30m 63mm cased to 16.50m	Ground Level (mOD) 18.75	Client DBFL	Job Number 9338-12-19
	Location 717014 E 731253.8 N	Dates 03/03/2020	Project Contractor GII	Sheet 1/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.50	B				18.65	0.10 (0.40)	MADE GROUND: Tarmacadam		
1.00-1.45	B SPT(C) N=12			1,2/3,3,3,3	18.25	0.50	MADE GROUND: Light brown slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles and occasional fragments of red brick cloth fibres and tarmacadam.		
2.00-2.45	B SPT(C) N=37			2,4/5,7,12,13		(1.70)	Firm light brown slightly sandy slightly gravelly CLAY. Some orange mottling.		
3.00-3.45	B SPT(C) N=51			5,7/11,11,14,15 Water strike(1) at 3.10m, rose to 2.60m in 20 mins, sealed at NOM.	16.55	2.20	Very stiff dark grey slightly sandy slightly gravelly CLAY. Gravel is subangular to subrounded fine to coarse.		▼1
4.00-4.45	B SPT(C) N=55			5,7/10,13,15,17		(4.50)			▼1
5.00-5.30	B SPT(C) 50/150			7,15/20,30					
5.30	TCR SCR RQD FI								
6.70-6.85 6.70	25			14,22/50 SPT(C) 50/0	12.05	6.70	Very stiff brown slightly sandy slightly gravelly CLAY with some subangular to subrounded cobbles and boulders. Gravel is subangular to subrounded fine to coarse.		
8.20-8.28 8.20	100			22,3/50 SPT(C) 25*/75 50/0					
9.70-9.78 9.70	100			22,3/50 SPT(C) 25*/75 50/0					

Remarks Groundwater encountered at 3.10m BGL. Borehole backfilled on completion. Cable percussion to 5.30m BGL with Rotary core follow on to 16.50m BGL. Chiselling from 5.30m to 5.30m for 1 hour.	Scale (approx) 1:50	Logged By PM, CB
	Figure No. 9338-12-19.BH05	



Machine : Dando 2000, Beretta T44 Flush : Water Core Dia : 63 mm Method : Cable Percussion with Rotary follow on	Casing Diameter 200mm cased to 5.30m 63mm cased to 16.50m	Ground Level (mOD) 18.75	Client DBFL	Job Number 9338-12-19
	Location 717014 E 731253.8 N	Dates 03/03/2020	Project Contractor GII	Sheet 2/2

Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
11.20-11.28 11.20	93				22.3/50 SPT(C) 25*/75 50/0		(6.60)	Weak- medium strong fine grained grey LIMESTONE distinctly weathered with calcite veining and occasional beds of stiff brown Clay. (possible residual mudstone) One set of fractures. F1: 0-10 degrees. Very closely-closely spaced undulating smooth occasionally open with brown staining and clay smearing.		
12.70-13.15 12.70	73			8,9/10,12,12,11 SPT(C) N=45						
13.30	50	22	22		5.45	13.30				
14.20				7						
15.40	87	59	52				(3.20)	From 15.40 to 16.50 Non Intact.		
15.70	81	23	16	N.I.						
16.50						2.25	16.50	Complete at 16.50m		

Remarks	Scale (approx)	Logged By
	1:50	PM, CB
Figure No. 9338-12-19.BH05		



Machine : Dando 2000		Casing Diameter 200mm cased to 8.00m		Ground Level (mOD) 20.32		Client DBFL		Job Number 9338-12-19	
Method : Cable Percussion		Location 716893.6 E 731242.4 N		Dates 11/03/2020		Project Contractor GII		Sheet 1/1	

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.50	B				20.12	(0.20) 0.20	Dark brown sandy slightly gravelly TOPSOIL with occasional rootlets.		
1.00-1.45 1.00	SPT(C) N=10 B			1,1/2,2,3,3	19.72	(0.40) 0.60	Soft light brown slightly sandy slightly gravelly CLAY with some grey mottling.		
2.00-2.45 2.00	SPT(C) N=19 B			2,2/3,4,5,7	18.12	(1.60)	Firm light brown slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles.		
3.00-3.42 3.00	SPT(C) 50/265 B			10,10/10,15,15,10					
4.00-4.39 4.00	SPT(C) 50/235 B			11,12/13,14,16,7					
5.00-5.38 5.00	SPT(C) 50/230 B			10,12/12,16,17,5					
6.00-6.35 6.00	SPT(C) 50/200 B			11,13/17,19,14					
7.00-7.33 7.00	SPT(C) 50/180 B			12,14/16,22,12	13.32	7.00	Very stiff dark grey slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles.		
8.00-8.28 8.00	SPT(C) 50/125 B			16,19/25,25	12.32	8.00	Very stiff light brown slightly sandy slightly gravelly CLAY.		
							Complete at 8.00m		

Remarks No groundwater encountered during drilling Borehole terminated at 8.00m BGL	Scale (approx)	Logged By
	1:50	PM
	Figure No. 9338-12-19.BH06	



Machine : Dando 2000		Casing Diameter 200mm cased to 8.00m		Ground Level (mOD) 20.00		Client DBFL		Job Number 9338-12-19	
Method : Cable Percussion		Location 716950.4 E 731230.1 N		Dates 12/03/2020		Project Contractor GII		Sheet 1/1	

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.50	B					(1.00)	MADE GROUND: Light brown slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles and occasional fragments of concrete and red brick.			
1.00-1.45 1.00	SPT(C) N=5 B			1,1/1,2,1,1	19.00	1.00 (0.40)	POSSIBLE MADE GROUND: Light brown slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles.			
2.00-2.45 2.00	SPT(C) N=27 B			1,2/4,6,8,9	18.60	1.40 (1.00)	Firm to Stiff light brown slightly sandy slightly gravelly CLAY.			
3.00-3.45 3.00	SPT(C) N=44 B			5,7/10,11,11,12	17.60	2.40 (4.80)	Very stiff dark grey slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles.			
4.00-4.44 4.00	SPT(C) 50/285 B			8,8/11,14,15,10						
5.00-5.43 5.00	SPT(C) 50/275 B			9,11/11,13,17,9						
6.00-6.37 6.00	SPT(C) 50/220 B			11,14/15,16,19						
7.00-7.37 7.00	SPT(C) 50/220 B			12,12/14,16,20	12.80	7.20 (0.80)	Very stiff light brown slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles.			
8.00-8.31 8.00	SPT(C) 50/155 B			14,17/20,25,5	12.00	8.00	Complete at 8.00m			

Remarks No groundwater encountered during drilling Slotted pipe with pea gravel surround from 8.0m BGL to 1.0m BGL, plain pipe with bentonite seal from 1.0m BGL to GL, finished with an upright cover Borehole terminated at 8.00m BGL	Scale (approx)	Logged By
	1:50	PM
	Figure No. 9338-12-19.BH07	



Machine : Dando 2000, Beretta T44	Casing Diameter 200mm cased to 8.00m 96mm cased to 13.70m	Ground Level (mOD) 19.76	Client DBFL	Job Number 9338-12-19
Method : Cable Percussion with Rotary follow on	Location 716987.3 E 731204.4 N	Dates 13/03/2020	Project Contractor GII	Sheet 1/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.50	B				19.66	0.10	CONCRETE.		
1.00	B				19.26	0.50	MADE GROUND: Light brown slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles and occasional fragments of red brick and concrete.		
1.00-1.45	SPT(C) N=5			1,1/1,1,1,2		(0.80)	Soft light brown very sandy slightly gravelly CLAY.		
2.00	B				18.46	1.30	Soft to firm brown slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles.		
2.00-2.45	SPT(C) N=9			1,1/1,2,3,3		(1.30)			
3.00	B				17.16	2.60	Very stiff dark grey slightly sandy slightly gravelly CLAY with rare subangular to subrounded cobbles.		
3.00-3.45	SPT(C) N=38			5,5/8,9,10,11					
4.00	B								
4.00-4.45	SPT(C) N=41			4,5/8,10,11,12					
5.00	B					(4.60)			
5.00-5.45	SPT(C) N=41			5,6/7,9,11,14					
6.00	B								
6.00-6.45	SPT(C) N=47			8,9/10,11,13,13					
7.00	B								
7.00-7.37	SPT(C) 55/220			11,14/16,17,22					
8.00	TCR	SCR	RQD	FI	12.56	7.20	Very stiff dark brown very sandy very gravelly CLAY. Gravel is subangular to subrounded fine to coarse.		
8.00-8.25	100				11.76	8.00	Very stiff brown slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles and boulders. Gravel is subangular to subrounded fine to coarse.		
8.00									
8.20	63					(1.70)			
9.70-9.78									
9.70				12,13/50 SPT(C) 25*/75 50/0	10.06	9.70	Medium strong- strong fine grained grey LIMESTONE partially- distinctly weathered with calcite veining.		

Remarks No groundwater encountered during drilling Cable percussion to 8.00m BGL with Rotary core follow on to 13.70m BGL. Borehole backfilled on completion.	Scale (approx)	Logged By
	1:50	PM, CB
	Figure No. 9338-12-19.BH08	



Machine : Dando 2000, Beretta T44 Flush : Water Core Dia : 96 mm Method : Cable Percussion with Rotary follow on	Casing Diameter 200mm cased to 8.00m 96mm cased to 13.70m	Ground Level (mOD) 19.76	Client DBFL	Job Number 9338-12-19
	Location 716987.3 E 731204.4 N	Dates 13/03/2020	Project Contractor GII	Sheet 2/2

Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
11.20	100	67	60	9			(4.00)	Two sets of fractures. F1: 0-10 degrees. Very closely-spaced undulating smooth occasionally open with clay smearing. F2: 30-45 degrees. Very closely-spaced undulating smooth closed.		
12.50	100	59	59							
13.70	100	75	68							
13.70						6.06	13.70	Complete at 13.70m		

Remarks	Scale (approx)	Logged By
	1:50	PM, CB
Figure No. 9338-12-19.BH08		



Machine : Dando 2000, Beretta T44	Casing Diameter 200mm cased to 8.00m 63mm cased to 18.70m	Ground Level (mOD) 20.84	Client DBFL	Job Number 9338-12-19
Method : Cable Percussion with Rotary follow on	Location 716881.5 E 731214.8 N	Dates 17/03/2020	Project Contractor GII	Sheet 1/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.50	B				20.54	(0.30) 0.30	Dark brown sandy slightly gravelly TOPSOIL with occasional rootlets.			
1.00 1.00-1.45	B SPT(C) N=10			1,1/2,3,3,2	19.94	(0.60) 0.90	Soft light brown slightly sandy slightly gravelly CLAY.			
2.00 2.00-2.45	B SPT(C) N=11			1,2/3,3,3,2		(1.50)	Firm light brown slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles.			
3.00 3.00-3.45	B SPT(C) N=28			2,3/5,7,7,9	18.44	2.40	Very stiff dark grey slightly silty slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles.			
4.00 4.00-4.45	B SPT(C) N=38			5,7/7,9,11,11						
5.00 5.00-5.45	B SPT(C) N=43			7,7/8,10,12,13		(5.20)				
6.00 6.00-6.44	B SPT(C) 50/285			10,12/12,14,14,10						
7.00 7.00-7.34	B SPT(C) 50/190			12,14/16,23,11						
8.00 8.00-8.28	TCR 100			12,17/24,26 B SPT(C) 50/125	13.24	7.60 (0.40)	Very stiff light brown slightly sandy slightly gravelly CLAY with rare subangular to subrounded cobbles.			
8.00 8.20	SCR 100				12.84	8.00	Very stiff slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles. Gravel is subangular to subrounded fine to coarse.			
9.70-9.85 9.70				12,22/50 SPT(C) 50/0		(2.50)				

Remarks No groundwater encountered during cable percussion drilling Cable percussion drilling to 8.00m BGL with rotary follow on to 18.70m BGL. Slotted pipe installed from 9.5 BGL to 3.0m BGL with pea gravel filter zone from 9.5m BGL to 1.0m BGL and bentonite seal from 1.0m BGL to GL, finished with an upright cover	Scale (approx)	Logged By
	1:50	PM, CB
	Figure No. 9338-12-19.BH09	



Machine : Dando 2000, Beretta T44 Flush : Water Core Dia : 63 mm Method : Cable Percussion with Rotary follow on	Casing Diameter 200mm cased to 8.00m 63mm cased to 18.70m	Ground Level (mOD) 20.84	Client DBFL	Job Number 9338-12-19
	Location 716881.5 E 731214.8 N	Dates 17/03/2020	Project Contractor GII	Sheet 2/2

Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
11.20-11.28 11.20	100				19.6/50 SPT(C) 25*/75 50/0	10.34	10.50	Very stiff brown slightly sandy slightly gravelly CLAY with some subangular to subrounded cobbles and boulders.			
							(2.50)				
12.70	83						7.84	13.00	No recovery. Driller notes possible rock at 13.00m.		
								(1.20)			
14.20	27						6.64	14.20	Possible weathered rock recovered as slightly sandy gravelly CLAY with subangular to subrounded cobbles of limestone.		
							(1.50)				
15.70	93	51	51			5.14	15.70	Medium strong- strong fine grained grey LIMESTONE partially to distinctly weathered, with closely to medium spaced thin beds of stiff brown Clay (possible residual mudstone). One set of fractures. F1: 0-10 degrees. Very closely-closely spaced undulating smooth occasionally open with brown staining and clay smearing.			
17.20	80	32	32				(3.00)				
18.70						2.14	18.70	Complete at 18.70m			

Remarks	Scale (approx)	Logged By
	1:50	PM, CB
	Figure No. 9338-12-19.BH09	



Machine : Dando 2000	Casing Diameter 200mm cased to 7.20m	Ground Level (mOD) 20.35	Client DBFL	Job Number 9338-12-19
Method : Cable Percussion	Location 716944.1 E 731201 N	Dates 17/03/2020-18/03/2020	Project Contractor GII	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.50	B				20.15	(0.20) 0.20	Dark brown sandy slightly gravelly TOPSOIL with occasional rootlets.		
1.00-1.45 1.00	SPT(C) N=11 B			1,1/2,3,3,3	19.15	(1.00) 1.20	Soft light brown slightly sandy slightly gravelly CLAY. Mottled grey.		
2.00-2.45 2.00	SPT(C) N=21 B			2,3/4,5,5,7	17.85	(1.30) 2.50	Firm to stiff light brown slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles.		
3.00-3.45 3.00	SPT(C) N=44 B			5,7/9,10,12,13			Very stiff dark grey slightly silty slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles.		
4.00-4.44 4.00	SPT(C) 50/285 B			7,9/11,14,16,9 Water strike(1) at 4.30m, rose to 4.20m in 20 mins.		(4.70)			▼1
5.00-5.40 5.00	SPT(C) 44/245 B			7,10/10,10,17,7					
6.00-6.37 6.00	SPT(C) 50/215 B			9,11/14,17,19					
7.00-7.17 7.00	SPT(C) 50/20 B			12,14/50	13.15	7.20	Refusal at 7.20m		

Remarks Groundwater encountered at 4.30m. Borehole backfilled on completion Borehole terminated at 7.20m BGL due to obstruction, possible boulder or rock	Scale (approx)	Logged By
	1:50	PM
	Figure No. 9338-12-19.BH10	



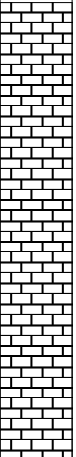

Machine : Dando 2000, Beretta T44	Casing Diameter 200mm cased to 8.00m 96mm cased to 13.00m	Ground Level (mOD) 20.45	Client DBFL	Job Number 9338-12-19
Method : Cable Percussion with Rotary follow on	Location 716967.5 E 731182.2 N	Dates 18/03/2020	Project Contractor GII	Sheet 1/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.50	B				20.35	0.10	MADE GROUND: Tarmacadam			
1.00	B				19.95	0.50	MADE GROUND: Light brown slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles			
1.00-1.45	SPT(C) N=6			1,1/1,2,1,2	19.75	0.70	Soft light brown slightly sandy slightly gravelly CLAY with rare subangular to subrounded cobbles.			
2.00	B				19.25	1.20	Soft light brown mottled grey slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles.			
2.00-2.45	SPT(C) N=12			1,1/2,3,3,4		(1.20)	Firm light brown slightly sandy slightly gravelly CLAY.			
3.00	B				18.05	2.40	Very stiff dark grey slightly silty slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles.			
3.00-3.45	SPT(C) N=48			7,9/10,12,12,14						
4.00	B									
4.00-4.45	SPT(C) N=49			7,10/10,12,14,13						
5.00	B									
5.00-5.44	SPT(C) 50/285			8,9/11,12,13,14		(4.70)				
6.00	B									
6.00-6.40	SPT(C) 50/245			8,10/12,14,14,10						
7.00				10,11/14,16,20						
7.00-7.37	TCR	SCR	RQD	B						
7.00				SPT(C) 50/220						
8.00-8.34	33	-			13.35	7.10	Very stiff light brown slightly sandy gravelly CLAY with occasional subangular to subrounded cobbles.			
8.00				12,14/17,20,15		(0.90)				
8.20				SPT(C) 52/190						
8.20				B	12.45	8.00	Very stiff brown slightly sandy slightly gravelly CLAY with some subangular to subrounded cobbles and boulders.			
9.00	87	18	9			(1.00)				
9.00					11.45	9.00	Medium strong-strong grey fine grained LIMESTONE partially weathered with calcite veining. Two sets of fractures. F1: 0-10 degrees. Very closely- closely spaced undulating smooth closed. F2 35-45 degrees. Closely- medium spaced undulating smooth closed.			
9.70										

Remarks No groundwater encountered during cable percussive drilling Cable percussion to 8.00m BGL with Rotary core follow on to 13.00m BGL. Slotted pipe installed from 7.0m BGL to 3m BGL with pea gravel filter zone from 7.0m BGL to 1.0m BGL and bentonite seal from 1.0m BGL to GL, finished with a flush cover.	Scale (approx)	Logged By
	1:50	PM, CB
	Figure No. 9338-12-19.BH11	



Machine : Dando 2000, Beretta T44 Flush : Water Core Dia : 96 mm Method : Cable Percussion with Rotary follow on	Casing Diameter 200mm cased to 8.00m 96mm cased to 13.00m	Ground Level (mOD) 20.45	Client DBFL	Job Number 9338-12-19
	Location 716967.5 E 731182.2 N	Dates 18/03/2020	Project Contractor GII	Sheet 2/2

Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
11.20	93	89	87	8			(4.00)				
	100	67	36								
12.70	100	67	67								
13.00						7.45	13.00	Complete at 13.00m			

Remarks	Scale (approx)	Logged By
	1:50	PM, CB
Figure No. 9338-12-19.BH11		



Machine : Dando 2000 Method : Cable Percussion	Casing Diameter 200mm cased to 8.00m	Ground Level (mOD) 21.41	Client DBFL	Job Number 9338-12-19
	Location 716865.6 E 731202.8 N	Dates 19/03/2020	Project Contractor GII	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.50	B				21.11	(0.30) 0.30	Dark brown sandy slightly gravelly TOPSOIL with occasional rootlets.		
1.00-1.45 1.00	SPT(C) N=6 B			1,1/1,1,2,2	20.41	(0.70) 1.00	POSSIBLE MADE GROUND: light brown sandy gravelly CLAY.		
2.00-2.45 2.00	SPT(C) N=10 B			2,2/2,3,3,2	19.51	(0.90) 1.90	Soft light brown mottled grey slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles.		
3.00-3.45 3.00	SPT(C) N=25 B			2,3/4,5,7,9	18.81	(0.70) 2.60	Firm light brown slightly sandy slightly gravelly CLAY.		
4.00-4.45 4.00	SPT(C) N=30 B			3,4/5,7,9,9			Very stiff dark grey slightly silty slightly sandy slightly gravelly CLAY with occasional subangular to subrounded cobbles.		
5.00-5.45 5.00	SPT(C) N=35 B			6,6/7,8,9,11		(5.40)			
6.00-6.45 6.00	SPT(C) N=46 B			7,10/10,11,12,13					
7.00-7.40 7.00	SPT(C) 50/245 B			10,12/14,14,15,7					
8.00-8.37 8.00	SPT(C) 50/220 B			10,14/16,17,17	13.41	8.00	Complete at 8.00m		

Remarks No groundwater encountered during drilling Borehole backfilled on completion. Borehole complete at 8.00m BGL	Scale (approx)	Logged By
	1:50	PM
	Figure No. 9338-12-19.BH12	

Appendix 6 – Laboratory Testing



Ground Investigations Ireland
Catherinestown House
Hazelhatch Road
Newcastle
Co. Dublin
Ireland



Attention :	Mike Sutton
Date :	17th June, 2020
Your reference :	9338-12-19
Our reference :	Test Report 20/7377 Batch 1
Location :	Sadford Park Miltown
Date samples received :	10th June, 2020
Status :	Final report
Issue :	1

Five samples were received for analysis on 10th June, 2020 of which five were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.
All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:



Phil Sommerton BSc
Senior Project Manager

Please include all sections of this report if it is reproduced

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sadford Park Miltown
Contact: Mike Sutton
EMT Job No: 20/7377

Report : Liquid

Liquids/products: V=40ml vial, G=glass bottle, P=plastic bottle
 H=H₂SO₄, Z=ZnAc, N=NaOH, HN=HNO₃

EMT Sample No.	1-8	9-16	17-24	25-32	33-40																																		Please see attached notes for all abbreviations and acronyms		
	Sample ID	BH09	BH03	BH02	BH07																																		BH11	Containers	V H HNUF HCL Z P G
Dissolved Arsenic #	<2.5	<2.5	<2.5	<2.5	<2.5														<2.5	ug/l	TM30/PM14																				
Dissolved Boron	51	35	34	32	30														<12	ug/l	TM30/PM14																				
Dissolved Cadmium #	<0.5	<0.5	<0.5	<0.5	<0.5														<0.5	ug/l	TM30/PM14																				
Total Dissolved Chromium #	<1.5	<1.5	<1.5	<1.5	<1.5														<1.5	ug/l	TM30/PM14																				
Dissolved Copper #	<7	<7	<7	<7	<7														<7	ug/l	TM30/PM14																				
Dissolved Lead #	<5	<5	<5	<5	<5														<5	ug/l	TM30/PM14																				
Dissolved Magnesium #	33.8	10.7	18.7	13.5	12.2														<0.1	mg/l	TM30/PM14																				
Dissolved Manganese #	861	190	200	999	55														<2	ug/l	TM30/PM14																				
Dissolved Mercury #	<1	<1	<1	<1	<1														<1	ug/l	TM30/PM14																				
Dissolved Nickel #	9	3	4	4	2														<2	ug/l	TM30/PM14																				
Dissolved Potassium #	2.9	2.0	1.0	1.4	1.9														<0.1	mg/l	TM30/PM14																				
Dissolved Zinc #	<3	<3	<3	<3	<3														<3	ug/l	TM30/PM14																				
PAH MS																																									
Naphthalene #	<0.1	<0.1	<0.1	<0.1	<0.1														<0.1	ug/l	TM4/PM30																				
Acenaphthylene #	<0.013	<0.013	<0.013	<0.013	<0.013														<0.013	ug/l	TM4/PM30																				
Acenaphthene #	<0.013	<0.013	<0.013	<0.013	<0.013														<0.013	ug/l	TM4/PM30																				
Fluorene #	<0.014	<0.014	<0.014	<0.014	<0.014														<0.014	ug/l	TM4/PM30																				
Phenanthrene #	<0.011	<0.011	<0.011	<0.011	<0.011														<0.011	ug/l	TM4/PM30																				
Anthracene #	<0.013	<0.013	<0.013	<0.013	<0.013														<0.013	ug/l	TM4/PM30																				
Fluoranthene #	<0.012	<0.012	<0.012	<0.012	<0.012														<0.012	ug/l	TM4/PM30																				
Pyrene #	<0.013	<0.013	<0.013	<0.013	<0.013														<0.013	ug/l	TM4/PM30																				
Benzo(a)anthracene #	<0.015	<0.015	<0.015	<0.015	<0.015														<0.015	ug/l	TM4/PM30																				
Chrysene #	<0.011	<0.011	<0.011	<0.011	<0.011														<0.011	ug/l	TM4/PM30																				
Benzo(bk)fluoranthene #	<0.018	<0.018	<0.018	<0.018	<0.018														<0.018	ug/l	TM4/PM30																				
Benzo(a)pyrene #	<0.016	<0.016	<0.016	<0.016	<0.016														<0.016	ug/l	TM4/PM30																				
Indeno(123cd)pyrene #	<0.011	<0.011	<0.011	<0.011	<0.011														<0.011	ug/l	TM4/PM30																				
Dibenzo(ah)anthracene #	<0.01	<0.01	<0.01	<0.01	<0.01														<0.01	ug/l	TM4/PM30																				
Benzo(ghi)perylene #	<0.011	<0.011	<0.011	<0.011	<0.011														<0.011	ug/l	TM4/PM30																				
PAH 16 Total #	<0.195	<0.195	<0.195	<0.195	<0.195														<0.195	ug/l	TM4/PM30																				
Benzo(b)fluoranthene	<0.01	<0.01	<0.01	<0.01	<0.01														<0.01	ug/l	TM4/PM30																				
Benzo(k)fluoranthene	<0.01	<0.01	<0.01	<0.01	<0.01														<0.01	ug/l	TM4/PM30																				
PAH Surrogate % Recovery	77	78	80	74	79														<0	%	TM4/PM30																				
MTBE #	<5	<5	<5	<5	<5														<5	ug/l	TM36/PM12																				
Benzene #	<5	<5	<5	<5	<5														<5	ug/l	TM36/PM12																				
Toluene #	<5	<5	<5	<5	<5														<5	ug/l	TM36/PM12																				
Ethylbenzene #	<5	<5	<5	<5	<5														<5	ug/l	TM36/PM12																				
m/p-Xylene #	<5	<5	<5	<5	<5														<5	ug/l	TM36/PM12																				
o-Xylene #	<5	<5	<5	<5	<5														<5	ug/l	TM36/PM12																				

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sadford Park Miltown
Contact: Mike Sutton
EMT Job No: 20/7377

Report : Liquid

Liquids/products: V=40ml vial, G=glass bottle, P=plastic bottle
 H=H₂SO₄, Z=ZnAc, N=NaOH, HN=HNO₃

EMT Sample No.	1-8	9-16	17-24	25-32	33-40										
Sample ID	BH09	BH03	BH02	BH07	BH11										
Depth															
COC No / misc															
Containers	V H HNUF HCL Z P G	V H HNUF HCL Z P G	V H HNUF HCL Z P G	V H HNUF HCL Z P G	V H HNUF HCL Z P G										
Sample Date	09/06/2020	09/06/2020	05/06/2020	05/06/2020	05/06/2020										
Sample Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water										
Batch Number	1	1	1	1	1										
Date of Receipt	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020										
						LOD/LOR	Units	Method No.							
TPH CWG															
Aliphatics															
>C5-C6 #	<10	<10	<10	<10	<10		<10	ug/l	TM36/PM12						
>C6-C8 #	<10	<10	<10	<10	<10		<10	ug/l	TM36/PM12						
>C8-C10 #	<10	<10	<10	<10	<10		<10	ug/l	TM36/PM12						
>C10-C12 #	<5	<5	<5	<5	<5		<5	ug/l	TM5/PM16/PM30						
>C12-C16 #	<10	70	<10	<10	<10		<10	ug/l	TM5/PM16/PM30						
>C16-C21 #	<10	560	<10	<10	<10		<10	ug/l	TM5/PM16/PM30						
>C21-C35 #	<10	<10	<10	<10	<10		<10	ug/l	TM5/PM16/PM30						
Total aliphatics C5-35 #	<10	630	<10	<10	<10		<10	ug/l	TM5/PM16/PM30						
Aromatics															
>C5-EC7 #	<10	<10	<10	<10	<10		<10	ug/l	TM36/PM12						
>EC7-EC8 #	<10	<10	<10	<10	<10		<10	ug/l	TM36/PM12						
>EC8-EC10 #	<10	<10	<10	<10	<10		<10	ug/l	TM36/PM12						
>EC10-EC12 #	<5	<5	<5	<5	<5		<5	ug/l	TM5/PM16/PM30						
>EC12-EC16 #	<10	330	<10	<10	<10		<10	ug/l	TM5/PM16/PM30						
>EC16-EC21 #	<10	2500	<10	<10	<10		<10	ug/l	TM5/PM16/PM30						
>EC21-EC35 #	<10	<10	<10	<10	<10		<10	ug/l	TM5/PM16/PM30						
Total aromatics C5-35 #	<10	2830	<10	<10	<10		<10	ug/l	TM5/PM16/PM30						
Total aliphatics and aromatics(C5-35) #	<10	3460	<10	<10	<10		<10	ug/l	TM5/PM16/PM30						
Total Phenols HPLC	<0.15	<0.15	<0.15	<0.15	<0.15		<0.15	mg/l	TM26/PM0						
Sulphate as SO4 #	67.2	47.6	101.6	9.4	126.6		<0.5	mg/l	TM38/PM0						
Chloride #	27.4	24.1	16.8	8.0	19.5		<0.3	mg/l	TM38/PM0						
Nitrate as NO3 #	<0.2	<0.2	0.9	<0.2	<0.2		<0.2	mg/l	TM38/PM0						
Total Cyanide #	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	mg/l	TM89/PM0						
Ammoniacal Nitrogen as NH3 #	0.41	0.15	<0.03	0.23	0.12		<0.03	mg/l	TM38/PM0						
Ammoniacal Nitrogen as NH4 #	0.43	0.16	<0.03	0.24	0.13		<0.03	mg/l	TM38/PM0						
Carbonate Alkalinity as CaCO3	<1	<1	<1	<1	<1		<1	mg/l	TM75/PM0						
Electrical Conductivity @25C #	734	277	814	541	581		<2	uS/cm	TM76/PM0						
pH #	8.01	8.08	7.48	7.82	7.83		<0.01	pH units	TM73/PM0						

Please see attached notes for all abbreviations and acronyms

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sadford Park Miltown
Contact: Mike Sutton

Matrix : Liquid

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	EPH Interpretation
20/7377	1	BH03		9-16	Linear alkylbenzenes

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sadford Park Miltown
Contact: Mike Sutton

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 20/7377						

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating. Only analyses which are accredited are recorded as deviating if set criteria are not met.

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 20/7377

SOILS

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCl (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overestimate when other sulphides such as Barite (Barium Sulphate) are present.

WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a UKAS requirement for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.

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REPORTS FROM THE SOUTH AFRICA LABORATORY

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
>>	Results above calibration range, the result should be considered the minimum value. The actual result could be significantly higher, this result is not accredited.
*	Analysis subcontracted to an Element Materials Technology approved laboratory.
AD	Samples are dried at 35°C ±5°C
CO	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
N	Client Sample
TB	Trip Blank Sample
OC	Outside Calibration Range

EMT Job No: 20/7377

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.				
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.	Yes			
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM16/PM30	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE/Water samples are extracted with solvent using a magnetic stirrer to create a vortex.	Yes			
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.				
TM5/TM36	please refer to TM5 and TM36 for method details	PM12/PM16/PM30	please refer to PM16/PM30 and PM12 for method details	Yes			
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.				
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP	PM14	Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered for Dissolved metals, and remain unfiltered for Total metals then acidified				
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP	PM14	Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered for Dissolved metals, and remain unfiltered for Total metals then acidified	Yes			
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE re	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes			
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993 (comparabl	PM0	No preparation is required.	Yes			

EMT Job No: 20/7377

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM73	Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377-3:1990. Determination of pH by Metrohm automated probe analyser.	PM0	No preparation is required.	Yes			
TM75	Modified US EPA method 310.1 (1978). Determination of Alkalinity by Metrohm automated titration analyser.	PM0	No preparation is required.				
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM0	No preparation is required.	Yes			
TM89	Modified USEPA method OIA-1667 (1999). Determination of cyanide by Flow Injection Analyser. Where WAD cyanides are required a Ligand displacement step is carried out before analysis.	PM0	No preparation is required.	Yes			

Ground Investigations Ireland
Catherinestown House
Hazelhatch Road
Newcastle
Co. Dublin
Ireland



Attention : Barry Sexton
Date : 7th February, 2020
Your reference : 9338-12-19
Our reference : Test Report 20/1334 Batch 1
Location : Sandford Park Milltown
Date samples received : 29th January, 2020
Status : Final report
Issue : 1

Eighteen samples were received for analysis on 29th January, 2020 of which eighteen were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.
All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:



Bruce Leslie
Project Manager

Please include all sections of this report if it is reproduced

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/1334

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	Please see attached notes for all abbreviations and acronyms		
Sample ID	WS01	WS01	WS01	WS02	WS02	WS02	WS03	WS03	WS03	WS04			
Depth	0.70	1.70	2.40	0.70	1.70	2.50	0.70	1.70	2.70	0.70			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	17/01/2020			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	LOD/LOR	Units	Method No.
Antimony	2	2	2	3	2	<1	2	2	2	2	<1	mg/kg	TM30/PM15
Arsenic #	13.9	9.3	7.6	13.6	11.3	8.9	11.3	11.2	13.7	12.3	<0.5	mg/kg	TM30/PM15
Barium #	97	80	55	201	147	122	74	80	110	65	<1	mg/kg	TM30/PM15
Cadmium #	3.0	2.0	1.4	4.7	2.3	1.1	3.0	2.3	1.6	2.7	<0.1	mg/kg	TM30/PM15
Chromium #	51.2	47.9	33.0	79.6	44.1	57.3	43.6	52.1	40.9	57.3	<0.5	mg/kg	TM30/PM15
Copper #	46	32	22	31	39	28	39	37	23	39	<1	mg/kg	TM30/PM15
Lead #	20	15	14	20	17	17	20	16	18	18	<5	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Molybdenum #	4.9	5.5	3.4	8.7	6.4	4.2	4.5	5.1	4.1	4.5	<0.1	mg/kg	TM30/PM15
Nickel #	65.1	42.7	27.6	72.8	51.9	42.6	51.0	58.4	37.1	51.7	<0.7	mg/kg	TM30/PM15
Selenium #	1	2	3	3	2	3	1	2	3	1	<1	mg/kg	TM30/PM15
Zinc #	114	96	66	114	110	98	95	98	77	93	<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Acenaphthene #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Fluorene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Phenanthrene #	0.16	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Anthracene #	0.06	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Fluoranthene #	0.25	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Pyrene #	0.22	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	0.13	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	mg/kg	TM4/PM8
Chrysene #	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	0.21	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	0.10	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene	0.08	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	0.08	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Coronene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
PAH 6 Total #	0.72	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	mg/kg	TM4/PM8
PAH 17 Total	1.40	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	mg/kg	TM4/PM8
Benzo(b)fluoranthene	0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM4/PM8
Benzo(j)fluoranthene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	mg/kg	TM4/PM8
PAH Surrogate % Recovery	67 ^{SV}	80	71	72	72	80	79	73	80	73	<0	%	TM4/PM8
Mineral Oil (C10-C40)	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	mg/kg	TM5/PM8/PM16

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/1334

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	Please see attached notes for all abbreviations and acronyms		
Sample ID	WS01	WS01	WS01	WS02	WS02	WS02	WS03	WS03	WS03	WS04			
Depth	0.70	1.70	2.40	0.70	1.70	2.50	0.70	1.70	2.70	0.70			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	17/01/2020			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	LOD/LOR	Units	Method No.
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TMS/PM8/PM16
>C12-C16 #	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	mg/kg	TMS/PM8/PM16
>C16-C21 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>C21-C35 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>C35-C40	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
Total aliphatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	mg/kg	TMS/PM8/PM16
>C6-C10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	mg/kg	TM36/PM12
>C10-C25	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
>C25-C35	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
Aromatics													
>C5-EC7 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TMS/PM8/PM16
>EC12-EC16 #	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	mg/kg	TMS/PM8/PM16
>EC16-EC21 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>EC21-EC35 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>EC35-EC40	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
Total aromatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	mg/kg	TMS/PM8/PM16
Total aliphatics and aromatics(C5-40)	<52	<52	<52	<52	<52	<52	<52	<52	<52	<52	<52	mg/kg	TMS/PM8/PM16
>EC6-EC10 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	mg/kg	TM36/PM12
>EC10-EC25	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
>EC25-EC35	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
MTBE #	<5	<5	<5	<5	<5	<5 ^{SV}	<5	<5	<5 ^{SV}	<5	<5	ug/kg	TM31/PM12
Benzene #	<5	<5	<5	<5	<5	<5 ^{SV}	<5	<5	<5 ^{SV}	<5	<5	ug/kg	TM31/PM12
Toluene #	<5	<5	<5	<5	<5	<5 ^{SV}	<5	<5	<5 ^{SV}	<5	<5	ug/kg	TM31/PM12
Ethylbenzene #	<5	<5	<5	<5	<5	<5 ^{SV}	<5	<5	<5 ^{SV}	<5	<5	ug/kg	TM31/PM12
m/p-Xylene #	<5	<5	<5	<5	<5	<5 ^{SV}	<5	<5	<5 ^{SV}	<5	<5	ug/kg	TM31/PM12
o-Xylene #	<5	<5	15	<5	<5	<5 ^{SV}	<5	<5	<5 ^{SV}	<5	<5	ug/kg	TM31/PM12
PCB 28 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 52 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 101 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 118 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 138 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 153 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 180 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
Total 7 PCBs #	<35	<35	<35	<35	<35	<35	<35	<35	<35	<35	<35	ug/kg	TM17/PM8

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/1334

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	Please see attached notes for all abbreviations and acronyms		
Sample ID	WS01	WS01	WS01	WS02	WS02	WS02	WS03	WS03	WS03	WS04			
Depth	0.70	1.70	2.40	0.70	1.70	2.50	0.70	1.70	2.70	0.70			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	17/01/2020			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	LOD/LOR	Units	Method No.
Natural Moisture Content	21.3	12.7	9.7	16.8	15.8	9.4	17.6	16.3	10.3	13.0	<0.1	%	PM4/PM0
Moisture Content (% Wet Weight)	17.6	11.3	8.9	14.4	13.6	8.6	15.0	14.0	9.3	11.5	<0.1	%	PM4/PM0
Hexavalent Chromium #	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	mg/kg	TM38/PM20
Chromium III	51.2	47.9	33.0	79.6	44.1	57.3	43.6	52.1	40.9	57.3	<0.5	mg/kg	NONE/NONE
Total Organic Carbon #	0.43	0.35	0.37	0.48	0.40	0.39	0.37	0.33	0.49	0.37	<0.02	%	TM21/PM24
pH #	8.37	8.52	8.73	8.40	8.47	8.71	8.40	8.46	8.69	8.30	<0.01	pH units	TM73/PM11
Mass of raw test portion	0.1099	0.1014	0.1011	0.1079	0.1038	0.099	0.1052	0.105	0.1002	0.1044		kg	NONE/PM17
Mass of dried test portion	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09		kg	NONE/PM17

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/1334

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	31-33	34-36	37-39	40-42	43-45	46-48	49-51	52-54			Please see attached notes for all abbreviations and acronyms		
Sample ID	WS04	WS05	WS05	WS06	WS06	WS07	WS07	WS07			LOD/LOR	Units	Method No.
Depth	1.70	0.70	1.70	0.70	1.70	0.70	1.70	2.60					
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T					
Sample Date	17/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020					
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil					
Batch Number	1	1	1	1	1	1	1	1					
Date of Receipt	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020					
Antimony	2	2	2	3	2	2	2	2			<1	mg/kg	TM30/PM15
Arsenic #	10.4	10.6	9.0	15.7	10.3	9.1	10.8	10.1			<0.5	mg/kg	TM30/PM15
Barium #	75	77	85	163	105	60	105	102			<1	mg/kg	TM30/PM15
Cadmium #	2.1	1.9	2.1	3.6	2.1	2.4	2.5	1.9			<0.1	mg/kg	TM30/PM15
Chromium #	36.3	46.4	41.0	50.1	33.4	52.6	44.6	40.6			<0.5	mg/kg	TM30/PM15
Copper #	33	33	33	37	33	31	37	28			<1	mg/kg	TM30/PM15
Lead #	17	17	15	22	14	15	16	17			<5	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	mg/kg	TM30/PM15
Molybdenum #	4.6	3.8	5.1	6.0	4.2	4.0	5.5	5.3			<0.1	mg/kg	TM30/PM15
Nickel #	47.3	46.6	40.4	65.8	42.2	39.3	46.8	42.5			<0.7	mg/kg	TM30/PM15
Selenium #	2	1	1	2	2	1	1	4			<1	mg/kg	TM30/PM15
Zinc #	93	85	91	109	86	79	93	87			<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04			<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			<0.03	mg/kg	TM4/PM8
Acenaphthene #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			<0.05	mg/kg	TM4/PM8
Fluorene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04			<0.04	mg/kg	TM4/PM8
Phenanthrene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04			<0.04	mg/kg	TM4/PM8
Fluoranthene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			<0.03	mg/kg	TM4/PM8
Pyrene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06			<0.06	mg/kg	TM4/PM8
Chrysene #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02			<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07			<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04			<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04			<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04			<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04			<0.04	mg/kg	TM4/PM8
Coronene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04			<0.04	mg/kg	TM4/PM8
PAH 6 Total #	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22			<0.22	mg/kg	TM4/PM8
PAH 17 Total	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64			<0.64	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02			<0.02	mg/kg	TM4/PM8
Benzo(j)fluoranthene	<1	<1	<1	<1	<1	<1	<1	<1			<1	mg/kg	TM4/PM8
PAH Surrogate % Recovery	71	77	82	81	70	74	71	80			<0	%	TM4/PM8
Mineral Oil (C10-C40)	<30	<30	<30	<30	<30	<30	<30	<30			<30	mg/kg	TM5/PM8/PM16

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/1334

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	31-33	34-36	37-39	40-42	43-45	46-48	49-51	52-54			
Sample ID	WS04	WS05	WS05	WS06	WS06	WS07	WS07	WS07	Please see attached notes for all abbreviations and acronyms		
Depth	1.70	0.70	1.70	0.70	1.70	0.70	1.70	2.60			
COC No / misc											
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	17/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1			
Date of Receipt	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	LOD/LOR	Units	Method No.
TPH CWG											
Aliphatics											
>C5-C6 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TMS/PM8/PM16
>C12-C16 #	<4	<4	<4	<4	<4	<4	<4	<4	<4	mg/kg	TMS/PM8/PM16
>C16-C21 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>C21-C35 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>C35-C40	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
Total aliphatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26	<26	mg/kg	TMS/PM8/PM16
>C6-C10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>C10-C25	<10	<10	<10	<10	<10	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
>C25-C35	<10	<10	<10	<10	<10	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
Aromatics											
>C5-EC7 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TMS/PM8/PM16
>EC12-EC16 #	<4	<4	<4	<4	<4	<4	<4	<4	<4	mg/kg	TMS/PM8/PM16
>EC16-EC21 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>EC21-EC35 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>EC35-EC40	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
Total aromatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26	<26	mg/kg	TMS/PM8/PM16
Total aliphatics and aromatics(C5-40)	<52	<52	<52	<52	<52	<52	<52	<52	<52	mg/kg	TMS/PM8/PM16
>EC6-EC10 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>EC10-EC25	<10	<10	<10	<10	<10	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
>EC25-EC35	<10	<10	<10	<10	<10	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
MTBE #	<5	<5	<5	<5	<5	<5	<5	<5 ^{SV}	<5	ug/kg	TM31/PM12
Benzene #	<5	<5	<5	<5	<5	<5	<5	<5 ^{SV}	<5	ug/kg	TM31/PM12
Toluene #	<5	<5	<5	<5	<5	<5	<5	<5 ^{SV}	<5	ug/kg	TM31/PM12
Ethylbenzene #	<5	<5	<5	<5	<5	<5	<5	<5 ^{SV}	<5	ug/kg	TM31/PM12
m/p-Xylene #	<5	<5	<5	<5	<5	<5	<5	<5 ^{SV}	<5	ug/kg	TM31/PM12
o-Xylene #	<5	<5	<5	<5	<5	<5	<5	<5 ^{SV}	<5	ug/kg	TM31/PM12
PCB 28 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 52 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 101 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 118 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 138 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 153 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 180 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
Total 7 PCBs #	<35	<35	<35	<35	<35	<35	<35	<35	<35	ug/kg	TM17/PM8

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/1334

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	31-33	34-36	37-39	40-42	43-45	46-48	49-51	52-54					
Sample ID	WS04	WS05	WS05	WS06	WS06	WS07	WS07	WS07					
Depth	1.70	0.70	1.70	0.70	1.70	0.70	1.70	2.60					
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T					
Sample Date	17/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020					
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil					
Batch Number	1	1	1	1	1	1	1	1					
Date of Receipt	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020					
											LOD/LOR	Units	Method No.
Natural Moisture Content	13.8	14.9	13.3	21.3	14.9	15.2	13.4	10.1			<0.1	%	PM4/PM0
Moisture Content (% Wet Weight)	12.1	12.9	11.7	17.5	12.9	13.2	11.8	9.2			<0.1	%	PM4/PM0
Hexavalent Chromium #	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3			<0.3	mg/kg	TM38/PM20
Chromium III	36.3	46.4	41.0	50.1	33.4	52.6	44.6	40.6			<0.5	mg/kg	NONE/NONE
Total Organic Carbon #	0.38	0.38	0.40	0.55	0.37	0.32	0.41	0.61			<0.02	%	TM21/PM24
pH #	8.32	8.53	8.48	8.32	8.20	8.32	8.45	8.68			<0.01	pH units	TM73/PM11
Mass of raw test portion	0.101	0.1047	0.1038	0.108	0.1037	0.1044	0.1023	0.1009				kg	NONE/PM17
Mass of dried test portion	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09				kg	NONE/PM17

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/1334

Report : CEN 10:1 1 Batch

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	Please see attached notes for all abbreviations and acronyms		
Sample ID	WS01	WS01	WS01	WS02	WS02	WS02	WS03	WS03	WS03	WS04			
Depth	0.70	1.70	2.40	0.70	1.70	2.50	0.70	1.70	2.70	0.70			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	17/01/2020			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	LOD/LOR	Units	Method No.
Dissolved Antimony #	<0.002	<0.002	<0.002	0.003	<0.002	<0.002	0.005	0.005	0.002	0.003	<0.002	mg/l	TM30/PM17
Dissolved Antimony (A10) #	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	0.05	0.05	0.02	0.03	<0.02	mg/kg	TM30/PM17
Dissolved Arsenic #	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	mg/l	TM30/PM17
Dissolved Arsenic (A10) #	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	mg/kg	TM30/PM17
Dissolved Barium #	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	mg/l	TM30/PM17
Dissolved Barium (A10) #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM30/PM17
Dissolved Cadmium #	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	mg/l	TM30/PM17
Dissolved Cadmium (A10) #	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	mg/kg	TM30/PM17
Dissolved Chromium #	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	mg/l	TM30/PM17
Dissolved Chromium (A10) #	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	mg/kg	TM30/PM17
Dissolved Copper #	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	mg/l	TM30/PM17
Dissolved Copper (A10) #	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	TM30/PM17
Dissolved Lead #	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	mg/l	TM30/PM17
Dissolved Lead (A10) #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM30/PM17
Dissolved Molybdenum #	0.002	0.008	0.010	0.004	0.009	0.013	<0.002	0.005	0.019	<0.002	<0.002	mg/l	TM30/PM17
Dissolved Molybdenum (A10) #	<0.02	0.08	0.10	0.04	0.09	0.13	<0.02	0.05	0.19	<0.02	<0.02	mg/kg	TM30/PM17
Dissolved Nickel #	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	mg/l	TM30/PM17
Dissolved Nickel (A10) #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM30/PM17
Dissolved Selenium #	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	mg/l	TM30/PM17
Dissolved Selenium (A10) #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM30/PM17
Dissolved Zinc #	0.008	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	mg/l	TM30/PM17
Dissolved Zinc (A10) #	0.08	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM30/PM17
Mercury Dissolved by CVAF #	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	mg/l	TM61/PM0
Mercury Dissolved by CVAF #	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	mg/kg	TM61/PM0
Phenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/l	TM26/PM0
Phenol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM26/PM0
Fluoride	0.4	<0.3	0.3	0.6	<0.3	0.3	0.4	0.5	1.4	0.5	<0.3	mg/l	TM173/PM0
Fluoride	4	<3	<3	6	<3	3	4	5	14	5	<3	mg/kg	TM173/PM0
Sulphate as SO4 #	0.5	0.6	0.6	0.7	0.5	1.4	0.6	1.1	0.8	10.6	<0.5	mg/l	TM38/PM0
Sulphate as SO4 #	<5	6	6	7	<5	14	6	11	8	106	<5	mg/kg	TM38/PM0
Chloride #	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	mg/l	TM38/PM0
Chloride #	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	mg/kg	TM38/PM0
Dissolved Organic Carbon	<2	<2	<2	3	<2	<2	<2	<2	<2	<2	<2	mg/l	TM60/PM0
Dissolved Organic Carbon	<20	<20	<20	30	<20	<20	<20	<20	<20	<20	<20	mg/kg	TM60/PM0
pH	8.25	6.99	7.82	7.92	8.17	8.19	8.19	8.08	8.26	8.05	<0.01	pH units	TM73/PM0
Total Dissolved Solids #	67	101	35	67	46	36	53	46	51	146	<35	mg/l	TM20/PM0
Total Dissolved Solids #	670	1010	<350	670	460	360	530	460	510	1460	<350	mg/kg	TM20/PM0

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/1334

Report : CEN 10:1 1 Batch
Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	31-33	34-36	37-39	40-42	43-45	46-48	49-51	52-54	Please see attached notes for all abbreviations and acronyms			
	Sample ID	WS04	WS05	WS05	WS06	WS06	WS07	WS07	WS07			
Depth	1.70	0.70	1.70	0.70	1.70	0.70	1.70	2.60				
COC No / misc												
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T				
Sample Date	17/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020				
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil				
Batch Number	1	1	1	1	1	1	1	1				
Date of Receipt	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020				
									LOD/LOR	Units	Method No.	
Dissolved Antimony #	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	mg/l	TM30/PM17	
Dissolved Antimony (A10) #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	mg/kg	TM30/PM17	
Dissolved Arsenic #	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	mg/l	TM30/PM17	
Dissolved Arsenic (A10) #	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	mg/kg	TM30/PM17	
Dissolved Barium #	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	mg/l	TM30/PM17	
Dissolved Barium (A10) #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM30/PM17	
Dissolved Cadmium #	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	mg/l	TM30/PM17	
Dissolved Cadmium (A10) #	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	mg/kg	TM30/PM17	
Dissolved Chromium #	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	mg/l	TM30/PM17	
Dissolved Chromium (A10) #	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	mg/kg	TM30/PM17	
Dissolved Copper #	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	mg/l	TM30/PM17	
Dissolved Copper (A10) #	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	TM30/PM17	
Dissolved Lead #	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	mg/l	TM30/PM17	
Dissolved Lead (A10) #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM30/PM17	
Dissolved Molybdenum #	0.010	0.004	0.011	0.004	0.013	0.003	0.009	0.022	<0.002	mg/l	TM30/PM17	
Dissolved Molybdenum (A10) #	0.10	0.04	0.11	0.04	0.13	0.03	0.09	0.22	<0.02	mg/kg	TM30/PM17	
Dissolved Nickel #	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	mg/l	TM30/PM17	
Dissolved Nickel (A10) #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM30/PM17	
Dissolved Selenium #	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	mg/l	TM30/PM17	
Dissolved Selenium (A10) #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM30/PM17	
Dissolved Zinc #	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	mg/l	TM30/PM17	
Dissolved Zinc (A10) #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM30/PM17	
Mercury Dissolved by CVAF #	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	mg/l	TM61/PM0	
Mercury Dissolved by CVAF #	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	mg/kg	TM61/PM0	
Phenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/l	TM26/PM0	
Phenol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM26/PM0	
Fluoride	<0.3	0.4	0.3	0.5	<0.3	0.5	<0.3	<0.3	<0.3	mg/l	TM173/PM0	
Fluoride	<3	4	<3	5	<3	5	<3	<3	<3	mg/kg	TM173/PM0	
Sulphate as SO4 #	1.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	mg/l	TM38/PM0	
Sulphate as SO4 #	19	<5	<5	<5	<5	<5	<5	8	<5	mg/kg	TM38/PM0	
Chloride #	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	mg/l	TM38/PM0	
Chloride #	<3	<3	<3	<3	<3	<3	<3	<3	<3	mg/kg	TM38/PM0	
Dissolved Organic Carbon	<2	<2	<2	<2	<2	<2	<2	<2	<2	mg/l	TM60/PM0	
Dissolved Organic Carbon	<20	<20	<20	<20	<20	<20	<20	<20	<20	mg/kg	TM60/PM0	
pH	6.77	7.15	7.34	7.51	7.60	7.67	7.71	7.68	<0.01	pH units	TM73/PM0	
Total Dissolved Solids #	186	56	165	91	61	51	83	103	<35	mg/l	TM20/PM0	
Total Dissolved Solids #	1861	560	1650	910	610	510	830	1030	<350	mg/kg	TM20/PM0	

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/1334

Report : EN12457_2
Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30						
Sample ID	WS01	WS01	WS01	WS02	WS02	WS02	WS03	WS03	WS03	WS04						
Depth	0.70	1.70	2.40	0.70	1.70	2.50	0.70	1.70	2.70	0.70						
COC No / misc																
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T						
Sample Date	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	17/01/2020						
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil						
Batch Number	1	1	1	1	1	1	1	1	1	1						
Date of Receipt	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	Inert	Stable Non-reactive	Hazardous	LOD LOR	Units	Method No.
Solid Waste Analysis																
Total Organic Carbon #	0.43	0.35	0.37	0.48	0.40	0.39	0.37	0.33	0.49	0.37	3	5	6	<0.02	%	TM21/PM24
Sum of BTEX	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025 ^{SV}	<0.025	<0.025	<0.025 ^{SV}	<0.025	6	-	-	<0.025	mg/kg	TM31/PM12
Sum of 7 PCBs #	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	1	-	-	<0.035	mg/kg	TM17/PM8
Mineral Oil	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	500	-	-	<30	mg/kg	TM5/PM8/PM16
PAH Sum of 6 #	0.72	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	-	-	-	<0.22	mg/kg	TM4/PM8
PAH Sum of 17	1.40	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	100	-	-	<0.64	mg/kg	TM4/PM8
CEN 10:1 Leachate																
Arsenic #	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.5	2	25	<0.025	mg/kg	TM30/PM17
Barium #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	20	100	300	<0.03	mg/kg	TM30/PM17
Cadmium #	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.04	1	5	<0.005	mg/kg	TM30/PM17
Chromium #	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	0.5	10	70	<0.015	mg/kg	TM30/PM17
Copper #	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	2	50	100	<0.07	mg/kg	TM30/PM17
Mercury #	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.01	0.2	2	<0.0001	mg/kg	TM61/PM10
Molybdenum #	<0.02	0.08	0.10	0.04	0.09	0.13	<0.02	0.05	0.19	<0.02	0.5	10	30	<0.02	mg/kg	TM30/PM17
Nickel #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.4	10	40	<0.02	mg/kg	TM30/PM17
Lead #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.5	10	50	<0.05	mg/kg	TM30/PM17
Antimony #	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	0.05	0.05	0.02	0.03	0.06	0.7	5	<0.02	mg/kg	TM30/PM17
Selenium #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.1	0.5	7	<0.03	mg/kg	TM30/PM17
Zinc #	0.08	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	4	50	200	<0.03	mg/kg	TM30/PM17
Total Dissolved Solids #	670	1010	<350	670	460	360	530	460	510	1460	4000	60000	100000	<350	mg/kg	TM20/PM0
Dissolved Organic Carbon	<20	<20	<20	30	<20	<20	<20	<20	<20	<20	500	800	1000	<20	mg/kg	TM60/PM0
Mass of raw test portion	0.1099	0.1014	0.1011	0.1079	0.1038	0.099	0.1052	0.105	0.1002	0.1044	-	-	-		kg	NONE/PM17
Dry Matter Content Ratio	82.2	88.3	89.3	83.0	86.7	90.5	85.3	86.1	89.6	85.9	-	-	-	<0.1	%	NONE/PM4
Leachant Volume	0.88	0.888	0.889	0.882	0.886	0.891	0.884	0.886	0.89	0.885	-	-	-		l	NONE/PM17
Eluate Volume	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	-	-	-		l	NONE/PM17
pH #	8.37	8.52	8.73	8.40	8.47	8.71	8.40	8.46	8.69	8.30	-	-	-	<0.01	pH units	TM73/PM11
Phenol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1	-	-	<0.1	mg/kg	TM26/PM0
Fluoride	4	<3	<3	6	<3	3	4	5	14	5	-	-	-	<3	mg/kg	TM173/PM0
Sulphate as SO4 #	<5	6	6	7	<5	14	6	11	8	106	1000	20000	50000	<5	mg/kg	TM38/PM0
Chloride #	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	800	15000	25000	<3	mg/kg	TM38/PM0

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Ground Investigations Ireland
 Reference: 9338-12-19
 Location: Sandford Park Milltown
 Contact: Barry Sexton
 EMT Job No: 20/1334

Report : EN12457_2
 Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	31-33	34-36	37-39	40-42	43-45	46-48	49-51	52-54								
Sample ID	WS04	WS05	WS05	WS06	WS06	WS07	WS07	WS07								
Depth	1.70	0.70	1.70	0.70	1.70	0.70	1.70	2.60								
COC No / misc																
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T								
Sample Date	17/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020								
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil								
Batch Number	1	1	1	1	1	1	1	1								
Date of Receipt	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020	29/01/2020								
											Inert	Stable Non-reactive	Hazardous	LOD LOR	Units	Method No.
Solid Waste Analysis																
Total Organic Carbon #	0.38	0.38	0.40	0.55	0.37	0.32	0.41	0.61			3	5	6	<0.02	%	TM21/PM24
Sum of BTEX	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025 ^{SV}			6	-	-	<0.025	mg/kg	TM31/PM12
Sum of 7 PCBs #	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035			1	-	-	<0.035	mg/kg	TM17/PM8
Mineral Oil	<30	<30	<30	<30	<30	<30	<30	<30			500	-	-	<30	mg/kg	TM5/PM8/PM16
PAH Sum of 6 #	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22			-	-	-	<0.22	mg/kg	TM4/PM8
PAH Sum of 17	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64			100	-	-	<0.64	mg/kg	TM4/PM8
CEN 10:1 Leachate																
Arsenic #	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025			0.5	2	25	<0.025	mg/kg	TM30/PM17
Barium #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			20	100	300	<0.03	mg/kg	TM30/PM17
Cadmium #	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			0.04	1	5	<0.005	mg/kg	TM30/PM17
Chromium #	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015			0.5	10	70	<0.015	mg/kg	TM30/PM17
Copper #	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07			2	50	100	<0.07	mg/kg	TM30/PM17
Mercury #	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001			0.01	0.2	2	<0.0001	mg/kg	TM61/PM0
Molybdenum #	0.10	0.04	0.11	0.04	0.13	0.03	0.09	0.22			0.5	10	30	<0.02	mg/kg	TM30/PM17
Nickel #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02			0.4	10	40	<0.02	mg/kg	TM30/PM17
Lead #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			0.5	10	50	<0.05	mg/kg	TM30/PM17
Antimony #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.02			0.06	0.7	5	<0.02	mg/kg	TM30/PM17
Selenium #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			0.1	0.5	7	<0.03	mg/kg	TM30/PM17
Zinc #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			4	50	200	<0.03	mg/kg	TM30/PM17
Total Dissolved Solids #	1861	560	1650	910	610	510	830	1030			4000	60000	100000	<350	mg/kg	TM20/PM0
Dissolved Organic Carbon	<20	<20	<20	<20	<20	<20	<20	<20			500	800	1000	<20	mg/kg	TM60/PM0
Mass of raw test portion	0.101	0.1047	0.1038	0.108	0.1037	0.1044	0.1023	0.1009			-	-	-		kg	NONE/PM17
Dry Matter Content Ratio	88.9	86.4	86.7	83.6	86.7	86.2	87.9	89.0			-	-	-	<0.1	%	NONE/PM4
Leachant Volume	0.889	0.886	0.886	0.882	0.886	0.886	0.888	0.889			-	-	-		l	NONE/PM17
Eluate Volume	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8			-	-	-		l	NONE/PM17
pH #	8.32	8.53	8.48	8.32	8.20	8.32	8.45	8.68			-	-	-	<0.01	pH units	TM73/PM11
Phenol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			1	-	-	<0.1	mg/kg	TM26/PM0
Fluoride	<3	4	<3	5	<3	5	<3	<3			-	-	-	<3	mg/kg	TM173/PM0
Sulphate as SO4 #	19	<5	<5	<5	<5	<5	<5	8			1000	20000	50000	<5	mg/kg	TM38/PM0
Chloride #	<3	<3	<3	<3	<3	<3	<3	<3			800	15000	25000	<3	mg/kg	TM38/PM0

Please see attached notes for all abbreviations and acronyms

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton

Matrix : Solid

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	EPH Interpretation
20/1334	1	WS01	0.70	1-3	No interpretation possible
20/1334	1	WS01	1.70	4-6	No interpretation possible
20/1334	1	WS01	2.40	7-9	No interpretation possible
20/1334	1	WS02	0.70	10-12	No interpretation possible
20/1334	1	WS02	1.70	13-15	No interpretation possible
20/1334	1	WS02	2.50	16-18	No interpretation possible
20/1334	1	WS03	0.70	19-21	No interpretation possible
20/1334	1	WS03	1.70	22-24	No interpretation possible
20/1334	1	WS03	2.70	25-27	No interpretation possible
20/1334	1	WS04	0.70	28-30	No interpretation possible
20/1334	1	WS04	1.70	31-33	No interpretation possible
20/1334	1	WS05	0.70	34-36	No interpretation possible
20/1334	1	WS05	1.70	37-39	No interpretation possible
20/1334	1	WS06	0.70	40-42	No interpretation possible
20/1334	1	WS06	1.70	43-45	No interpretation possible
20/1334	1	WS07	0.70	46-48	No interpretation possible
20/1334	1	WS07	1.70	49-51	No interpretation possible
20/1334	1	WS07	2.60	52-54	No interpretation possible

Client Name: Ground Investigations Ireland
Reference: 19/12/9338
Location: Sandford Park Milltown
Contact: Barry Sexton

Note:
 Asbestos Screen analysis is carried out in accordance with our documented in-house methods PM042 and TM065 and HSG 248 by Stereo and Polarised Light Microscopy using Dispersion Staining Techniques and is covered by our UKAS accreditation. Detailed Gravimetric Quantification and PCOM Fibre Analysis is carried out in accordance with our documented in-house methods PM042 and TM131 and HSG 248 using Stereo and Polarised Light Microscopy and Phase Contrast Optical Microscopy (PCOM). Samples are retained for not less than 6 months from the date of analysis unless specifically requested.

Opinions, including ACM type and Asbestos level less than 0.1%, lie outside the scope of our UKAS accreditation.

Where the sample is not taken by a Element Materials Technology consultant, Element Materials Technology cannot be responsible for inaccurate or unrepresentative sampling.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Date Of Analysis	Analysis	Result
20/1334	1	WS01	0.70	2	31/01/2020	General Description (Bulk Analysis)	soil.stones
					31/01/2020	Asbestos Fibres	NAD
					31/01/2020	Asbestos ACM	NAD
					31/01/2020	Asbestos Type	NAD
					31/01/2020	Asbestos Level Screen	NAD
20/1334	1	WS01	1.70	5	31/01/2020	General Description (Bulk Analysis)	soil.stones
					31/01/2020	Asbestos Fibres	NAD
					31/01/2020	Asbestos ACM	NAD
					31/01/2020	Asbestos Type	NAD
					31/01/2020	Asbestos Level Screen	NAD
20/1334	1	WS01	2.40	8	31/01/2020	General Description (Bulk Analysis)	soil.stones
					31/01/2020	Asbestos Fibres	NAD
					31/01/2020	Asbestos ACM	NAD
					31/01/2020	Asbestos Type	NAD
					31/01/2020	Asbestos Level Screen	NAD
20/1334	1	WS02	0.70	11	31/01/2020	General Description (Bulk Analysis)	soil-stones
					31/01/2020	Asbestos Fibres	NAD
					31/01/2020	Asbestos ACM	NAD
					31/01/2020	Asbestos Type	NAD
					31/01/2020	Asbestos Level Screen	NAD
20/1334	1	WS02	1.70	14	31/01/2020	General Description (Bulk Analysis)	soil-stones
					31/01/2020	Asbestos Fibres	NAD
					31/01/2020	Asbestos ACM	NAD
					31/01/2020	Asbestos Type	NAD
					31/01/2020	Asbestos Level Screen	NAD
20/1334	1	WS02	2.50	17	31/01/2020	General Description (Bulk Analysis)	soil-stones
					31/01/2020	Asbestos Fibres	NAD
					31/01/2020	Asbestos ACM	NAD
					31/01/2020	Asbestos Type	NAD
					31/01/2020	Asbestos Level Screen	NAD
20/1334	1	WS03	0.70	20	31/01/2020	General Description (Bulk Analysis)	Soil/Stones
					31/01/2020	Asbestos Fibres	NAD
					31/01/2020	Asbestos ACM	NAD

Client Name: Ground Investigations Ireland
Reference: 19/12/9338
Location: Sandford Park Milltown
Contact: Barry Sexton

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Date Of Analysis	Analysis	Result
20/1334	1	WS03	0.70	20	31/01/2020	Asbestos Type	NAD
					31/01/2020	Asbestos Level Screen	NAD
20/1334	1	WS03	1.70	23	31/01/2020	General Description (Bulk Analysis)	Soil/Stones
					31/01/2020	Asbestos Fibres	NAD
					31/01/2020	Asbestos ACM	NAD
					31/01/2020	Asbestos Type	NAD
					31/01/2020	Asbestos Level Screen	NAD
20/1334	1	WS03	2.70	26	31/01/2020	General Description (Bulk Analysis)	Soil/Stones
					31/01/2020	Asbestos Fibres	NAD
					31/01/2020	Asbestos ACM	NAD
					31/01/2020	Asbestos Type	NAD
					31/01/2020	Asbestos Level Screen	NAD
20/1334	1	WS04	0.70	29	31/01/2020	General Description (Bulk Analysis)	Soil/Stones
					31/01/2020	Asbestos Fibres	NAD
					31/01/2020	Asbestos ACM	NAD
					31/01/2020	Asbestos Type	NAD
					31/01/2020	Asbestos Level Screen	NAD
20/1334	1	WS04	1.70	32	31/01/2020	General Description (Bulk Analysis)	soil-stones
					31/01/2020	Asbestos Fibres	NAD
					31/01/2020	Asbestos ACM	NAD
					31/01/2020	Asbestos Type	NAD
					31/01/2020	Asbestos Level Screen	NAD
20/1334	1	WS05	0.70	35	31/01/2020	General Description (Bulk Analysis)	soil-stones
					31/01/2020	Asbestos Fibres	NAD
					31/01/2020	Asbestos ACM	NAD
					31/01/2020	Asbestos Type	NAD
					31/01/2020	Asbestos Level Screen	NAD
20/1334	1	WS05	1.70	38	31/01/2020	General Description (Bulk Analysis)	soil-stones
					31/01/2020	Asbestos Fibres	NAD
					31/01/2020	Asbestos ACM	NAD
					31/01/2020	Asbestos Type	NAD
					31/01/2020	Asbestos Level Screen	NAD
20/1334	1	WS06	0.70	41	31/01/2020	General Description (Bulk Analysis)	Soil/Stones
					31/01/2020	Asbestos Fibres	NAD
					31/01/2020	Asbestos ACM	NAD
					31/01/2020	Asbestos Type	NAD
					31/01/2020	Asbestos Level Screen	NAD
20/1334	1	WS06	1.70	44	31/01/2020	General Description (Bulk Analysis)	Soil/Stones
					31/01/2020	Asbestos Fibres	NAD
					31/01/2020	Asbestos ACM	NAD
					31/01/2020	Asbestos Type	NAD
					31/01/2020	Asbestos Level Screen	NAD
20/1334	1	WS07	0.70	47	31/01/2020	General Description (Bulk Analysis)	soil.stones
					31/01/2020	Asbestos Fibres	NAD

Client Name: Ground Investigations Ireland
Reference: 19/12/9338
Location: Sandford Park Milltown
Contact: Barry Sexton

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Date Of Analysis	Analysis	Result
20/1334	1	WS07	0.70	47	31/01/2020	Asbestos ACM	NAD
					31/01/2020	Asbestos Type	NAD
					31/01/2020	Asbestos Level Screen	NAD
20/1334	1	WS07	1.70	50	31/01/2020	General Description (Bulk Analysis)	soil.stones
					31/01/2020	Asbestos Fibres	NAD
					31/01/2020	Asbestos ACM	NAD
					31/01/2020	Asbestos Type	NAD
					31/01/2020	Asbestos Level Screen	NAD
20/1334	1	WS07	2.60	53	31/01/2020	General Description (Bulk Analysis)	soil.stones
					31/01/2020	Asbestos Fibres	NAD
					31/01/2020	Asbestos ACM	NAD
					31/01/2020	Asbestos Type	NAD
					31/01/2020	Asbestos Level Screen	NAD

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 20/1334						

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating.
 Only analyses which are accredited are recorded as deviating if set criteria are not met.

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 20/1334

SOILS

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCl (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overestimate when other sulphides such as Barite (Barium Sulphate) are present.

WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a UKAS requirement for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.

Please include all sections of this report if it is reproduced

REPORTS FROM THE SOUTH AFRICA LABORATORY

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
>>	Results above calibration range, the result should be considered the minimum value. The actual result could be significantly higher, this result is not accredited.
*	Analysis subcontracted to an Element Materials Technology approved laboratory.
AD	Samples are dried at 35°C ±5°C
CO	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
N	Client Sample
TB	Trip Blank Sample
OC	Outside Calibration Range

EMT Job No: 20/1334

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465 and BS1377.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM4	Modified USEPA 8270 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM5	Modified 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM16	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	
TM5	Modified 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	Yes
TM5	Modified 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details			AR	Yes
TM17	Modified US EPA method 8270. Determination of specific Polychlorinated Biphenyl congeners by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM20	Modified BS 1377-3: 1990/USEPA 160.3 Gravimetric determination of Total Dissolved Solids/Total Solids	PM0	No preparation is required.	Yes		AR	Yes
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil, March 2012 v4.	PM24	Dried and ground solid samples are washed with hydrochloric acid, then rinsed with deionised water to remove the mineral carbon before TOC analysis.	Yes		AD	Yes

EMT Job No: 20/1334

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.			AR	Yes
TM30	Determination of Trace Metal elements by ICP-OES (Inductively Coupled Plasma - Optical Emission Spectrometry). Modified US EPA Method 200.7, 6010B and BS EN ISO 11885 2009	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.			AD	Yes
TM30	Determination of Trace Metal elements by ICP-OES (Inductively Coupled Plasma - Optical Emission Spectrometry). Modified US EPA Method 200.7, 6010B and BS EN ISO 11885 2009	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.	Yes		AD	Yes
TM30	Determination of Trace Metal elements by ICP-OES (Inductively Coupled Plasma - Optical Emission Spectrometry). Modified US EPA Method 200.7, 6010B and BS EN ISO 11885 2009	PM17	Modified method BS EN12457-2 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.	Yes		AR	Yes
TM31	Modified USEPA 8015B. Determination of Methylterbutylether, Benzene, Toluene, Ethylbenzene and Xylene by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM31	Modified USEPA 8015B. Determination of Methylterbutylether, Benzene, Toluene, Ethylbenzene and Xylene by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM36	Modified US EPA method 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results can be confirmed using GCMS.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM36	Modified US EPA method 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results can be confirmed using GCMS.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods 325.2 (Chloride), 375.4 (Sulphate), 365.2 (o-Phosphate), 353.1 (TON), 354.1 (Nitrite), 350.1 (NH4+) comparable to BS ISO 15923-1, 7196A (Hex Cr)	PM0	No preparation is required.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods 325.2 (Chloride), 375.4 (Sulphate), 365.2 (o-Phosphate), 353.1 (TON), 354.1 (Nitrite), 350.1 (NH4+) comparable to BS ISO 15923-1, 7196A (Hex Cr)	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AR	Yes

EMT Job No: 20/1334

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM60	TC/TOC analysis of Waters by High Temperature Combustion followed by NDIR detection. Based on the following modified standard methods: USEPA 9060, APHA Standard Methods for Examination of Water and Wastewater 5310B, ASTM D 7573, and USEPA 415.1.	PM0	No preparation is required.			AR	Yes
TM61	Modified US EPA methods 245.7 and 200.7. Determination of Mercury by Cold Vapour Atomic Fluorescence.	PM0	No preparation is required.	Yes		AR	Yes
TM65	Asbestos Bulk Identification method based on HSG 248.	PM42	Solid samples undergo a thorough visual inspection for asbestos fibres prior to asbestos identification using TM065.	Yes		AR	
TM73	Modified US EPA methods 150.1 and 9045D and BS1377:1990. Determination of pH by Metrohm automated probe analyser.	PM0	No preparation is required.			AR	Yes
TM73	Modified US EPA methods 150.1 and 9045D and BS1377:1990. Determination of pH by Metrohm automated probe analyser.	PM11	Extraction of as received solid samples using one part solid to 2.5 parts deionised water.	Yes		AR	No
TM173	Analysis of fluoride by ISE (Ion Selective Electrode) using modified ISE method 340.2	PM0	No preparation is required.			AR	Yes
NONE	No Method Code	NONE	No Method Code			AD	Yes
NONE	No Method Code	PM17	Modified method BS EN12457-2 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.				
NONE	No Method Code	PM17	Modified method BS EN12457-2 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.			AR	
NONE	No Method Code	PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465 and BS1377.			AR	

Ground Investigations Ireland
Catherinestown House
Hazelhatch Road
Newcastle
Co. Dublin
Ireland



Attention : Barry Sexton
Date : 10th February, 2020
Your reference : 9338-12-19
Our reference : Test Report 20/1406 Batch 1
Location : Sandford Park Milltown
Date samples received : 30th January, 2020
Status : Final report
Issue : 1

Twenty samples were received for analysis on 30th January, 2020 of which twenty were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.
All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:



Bruce Leslie
Project Manager

Please include all sections of this report if it is reproduced

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/1406

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	LOD/LOR	Units	Method No.
	Sample ID	WS08	WS08	WS08	WS09	WS09	WS09	WS10	WS10	WS10			
Depth	0.70	1.70	2.60	0.70	1.70	2.60	0.70	1.70	2.30	0.70			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	17/01/2020	17/01/2020	17/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020			
Antimony	2	2	2	2	2	2	2	2	2	2	<1	mg/kg	TM30/PM15
Arsenic #	6.9	7.6	10.9	8.1	9.4	11.6	13.3	11.3	11.0	11.5	<0.5	mg/kg	TM30/PM15
Barium #	65	94	42	312	87	64	69	63	63	113	<1	mg/kg	TM30/PM15
Cadmium #	1.2	1.7	2.4	1.9	2.1	1.9	2.5	2.1	2.0	2.6	<0.1	mg/kg	TM30/PM15
Chromium #	50.2	42.5	39.2	37.6	47.1	38.2	42.2	42.8	36.7	39.3	<0.5	mg/kg	TM30/PM15
Copper #	20	26	32	30	33	32	40	31	30	36	<1	mg/kg	TM30/PM15
Lead #	11	14	17	14	16	18	17	19	17	16	<5	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Molybdenum #	3.5	4.9	5.2	3.5	4.7	4.9	4.6	4.7	4.4	4.0	<0.1	mg/kg	TM30/PM15
Nickel #	29.6	35.2	40.0	35.5	43.0	41.2	51.0	39.2	39.7	47.4	<0.7	mg/kg	TM30/PM15
Selenium #	1	1	3	1	2	5	1	<1	2	1	<1	mg/kg	TM30/PM15
Zinc #	80	76	96	62	94	98	101	90	86	83	<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Acenaphthene #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Fluorene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Phenanthrene #	<0.03	<0.03	<0.03	<0.03	<0.03	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Fluoranthene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Pyrene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	mg/kg	TM4/PM8
Chrysene #	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Coronene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
PAH 6 Total #	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	mg/kg	TM4/PM8
PAH 17 Total	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM4/PM8
Benzo(j)fluoranthene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	mg/kg	TM4/PM8
PAH Surrogate % Recovery	84	83	81	81	76	86	106	98	100	100	<0	%	TM4/PM8
Mineral Oil (C10-C40)	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	mg/kg	TM5/PM8/PM16

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/1406

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	Please see attached notes for all abbreviations and acronyms		
Sample ID	WS08	WS08	WS08	WS09	WS09	WS09	WS10	WS10	WS10	WS11			
Depth	0.70	1.70	2.60	0.70	1.70	2.60	0.70	1.70	2.30	0.70			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	17/01/2020	17/01/2020	17/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	LOD/LOR	Units	Method No.
TPH CWG													
Aliphatics													
>C6-C6 #	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TMS/PM8/PM16
>C12-C16 #	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	mg/kg	TMS/PM8/PM16
>C16-C21 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>C21-C35 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>C35-C40	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
Total aliphatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	mg/kg	TMS/PM8/PM16
>C6-C10	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C10-C25	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
>C25-C35	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
Aromatics													
>C5-EC7 #	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TMS/PM8/PM16
>EC12-EC16 #	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	mg/kg	TMS/PM8/PM16
>EC16-EC21 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>EC21-EC35 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>EC35-EC40	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
Total aromatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	mg/kg	TMS/PM8/PM16
Total aliphatics and aromatics(C5-40)	<52	<52	<52	<52	<52	<52	<52	<52	<52	<52	<52	mg/kg	TMS/PM8/PM16
>EC6-EC10 #	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC10-EC25	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
>EC25-EC35	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
MTBE #	<5	<5	<5 ^{SV}	<5	<5	<5 ^{SV}	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
Benzene #	<5	<5	<5 ^{SV}	<5	<5	<5 ^{SV}	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
Toluene #	<5	<5	<5 ^{SV}	<5	<5	<5 ^{SV}	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
Ethylbenzene #	<5	<5	<5 ^{SV}	<5	<5	<5 ^{SV}	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
m/p-Xylene #	<5	<5	<5 ^{SV}	<5	<5	<5 ^{SV}	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
o-Xylene #	<5	<5	<5 ^{SV}	<5	<5	<5 ^{SV}	<5	<5	58	<5	<5	ug/kg	TM31/PM12
PCB 28 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 52 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 101 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 118 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 138 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 153 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 180 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
Total 7 PCBs #	<35	<35	<35	<35	<35	<35	<35	<35	<35	<35	<35	ug/kg	TM17/PM8

Element Materials Technology

Client Name: Ground Investigations Ireland
 Reference: 9338-12-19
 Location: Sandford Park Milltown
 Contact: Barry Sexton
 EMT Job No: 20/1406

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	Please see attached notes for all abbreviations and acronyms		
Sample ID	WS08	WS08	WS08	WS09	WS09	WS09	WS10	WS10	WS10	WS11			
Depth	0.70	1.70	2.60	0.70	1.70	2.60	0.70	1.70	2.30	0.70			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	17/01/2020	17/01/2020	17/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	LOD/LOR	Units	Method No.
Natural Moisture Content	13.5	10.9	8.9	15.7	11.8	8.2	13.2	13.9	12.9	13.3	<0.1	%	PM4/PM0
Moisture Content (% Wet Weight)	11.9	9.8	8.2	13.6	10.5	7.6	11.6	12.2	11.5	11.7	<0.1	%	PM4/PM0
Hexavalent Chromium #	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	mg/kg	TM38/PM20
Chromium III	50.2	42.5	39.2	37.6	47.1	38.2	42.2	42.8	36.7	39.3	<0.5	mg/kg	NONE/NONE
Total Organic Carbon #	0.44	0.36	0.69	0.38	0.40	0.69	0.37	0.37	0.49	0.39	<0.02	%	TM21/PM24
pH #	8.30	8.44	8.33	8.55	8.60	8.65	8.48	8.56	8.66	8.60	<0.01	pH units	TM73/PM11
Mass of raw test portion	0.0999	0.0994	0.0983	0.1026	0.101	0.0984	0.1031	0.1014	0.1027	0.1002		kg	NONE/PM17
Mass of dried test portion	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09		kg	NONE/PM17

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/1406

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	31-33	34-36	37-39	40-42	43-45	46-48	49-51	52-54	55-57	58-60	LOD/LOR	Units	Method No.
	Sample ID	WS11	WS11	WS12	WS12	WS12	WS13	WS13	WS14	WS14			
Depth	1.70	2.20	0.70	1.70	2.50	0.70	1.40	0.70	1.70	2.70			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	16/01/2020	16/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020			
Antimony	2	2	2	2	2	2	2	2	2	2	<1	mg/kg	TM30/PM15
Arsenic #	10.6	10.2	12.3	9.4	10.1	10.4	9.8	10.2	8.3	10.2	<0.5	mg/kg	TM30/PM15
Barium #	65	92	80	88	130	71	64	68	121	51	<1	mg/kg	TM30/PM15
Cadmium #	2.9	2.0	1.4	1.9	1.8	2.3	1.9	2.3	2.1	2.0	<0.1	mg/kg	TM30/PM15
Chromium #	37.5	50.8	64.0	40.2	37.4	40.5	34.4	39.9	35.8	35.7	<0.5	mg/kg	TM30/PM15
Copper #	32	32	30	29	31	31	33	30	28	32	<1	mg/kg	TM30/PM15
Lead #	16	18	25	16	18	14	15	13	15	17	<5	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Molybdenum #	4.0	5.1	4.3	4.4	4.5	3.5	4.0	3.8	4.4	4.3	<0.1	mg/kg	TM30/PM15
Nickel #	37.9	44.7	34.1	41.1	39.3	40.5	41.7	41.1	35.6	38.2	<0.7	mg/kg	TM30/PM15
Selenium #	<1	1	1	<1	3	<1	<1	1	1	3	<1	mg/kg	TM30/PM15
Zinc #	103	91	164	89	86	83	89	89	80	91	<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Acenaphthene #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Fluorene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Phenanthrene #	<0.03	<0.03	<0.03	<0.03	0.06	<0.03	<0.03	<0.03	<0.03	0.05	<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Fluoranthene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Pyrene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	mg/kg	TM4/PM8
Chrysene #	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Coronene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
PAH 6 Total #	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	mg/kg	TM4/PM8
PAH 17 Total	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM4/PM8
Benzo(j)fluoranthene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	mg/kg	TM4/PM8
PAH Surrogate % Recovery	97	97	99	105	101	99	85	98	97	100	<0	%	TM4/PM8
Mineral Oil (C10-C40)	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	mg/kg	TM5/PM8/PM16

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/1406

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	31-33	34-36	37-39	40-42	43-45	46-48	49-51	52-54	55-57	58-60	Please see attached notes for all abbreviations and acronyms		
Sample ID	WS11	WS11	WS12	WS12	WS12	WS13	WS13	WS14	WS14	WS14	LOD/LOR	Units	Method No.
Depth	1.70	2.20	0.70	1.70	2.50	0.70	1.40	0.70	1.70	2.70			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	16/01/2020	16/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020			
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	0.2	<0.1	<0.1	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TMS/PM8/PM16
>C12-C16 #	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	mg/kg	TMS/PM8/PM16
>C16-C21 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>C21-C35 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>C35-C40	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
Total aliphatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	mg/kg	TMS/PM8/PM16/PM12/PM15
>C6-C10	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	0.2	<0.1	<0.1	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>C10-C25	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
>C25-C35	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
Aromatics													
>C5-EC7 #	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TMS/PM8/PM16
>EC12-EC16 #	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	mg/kg	TMS/PM8/PM16
>EC16-EC21 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>EC21-EC35 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>EC35-EC40	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
Total aromatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	mg/kg	TMS/PM8/PM16/PM12/PM15
Total aliphatics and aromatics(C5-40)	<52	<52	<52	<52	<52	<52	<52	<52	<52	<52	<52	mg/kg	TMS/PM8/PM16/PM12/PM15
>EC6-EC10 #	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>EC10-EC25	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
>EC25-EC35	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
MTBE #	<5	<5	<5	<5	<5 ^{SV}	<5	<5	<5	<5	<5 ^{SV}	<5	ug/kg	TM31/PM12
Benzene #	<5	<5	<5	<5	<5 ^{SV}	<5	<5	<5	<5	<5 ^{SV}	<5	ug/kg	TM31/PM12
Toluene #	<5	<5	<5	<5	<5 ^{SV}	<5	<5	<5	<5	<5 ^{SV}	<5	ug/kg	TM31/PM12
Ethylbenzene #	<5	<5	<5	<5	<5 ^{SV}	<5	<5	<5	<5	<5 ^{SV}	<5	ug/kg	TM31/PM12
m/p-Xylene #	<5	<5	<5	<5	<5 ^{SV}	<5	<5	<5	<5	<5 ^{SV}	<5	ug/kg	TM31/PM12
o-Xylene #	<5	26	<5	<5	<5 ^{SV}	<5	15	<5	<5	<5 ^{SV}	<5	ug/kg	TM31/PM12
PCB 28 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 52 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 101 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 118 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 138 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 153 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 180 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
Total 7 PCBs #	<35	<35	<35	<35	<35	<35	<35	<35	<35	<35	<35	ug/kg	TM17/PM8

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/1406

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	31-33	34-36	37-39	40-42	43-45	46-48	49-51	52-54	55-57	58-60			
Sample ID	WS11	WS11	WS12	WS12	WS12	WS13	WS13	WS14	WS14	WS14			
Depth	1.70	2.20	0.70	1.70	2.50	0.70	1.40	0.70	1.70	2.70	Please see attached notes for all abbreviations and acronyms		
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	16/01/2020	16/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	LOD/LOR	Units	Method No.
Natural Moisture Content	12.2	11.9	27.0	10.9	10.1	13.8	12.0	13.2	12.1	8.9	<0.1	%	PM4/PM0
Moisture Content (% Wet Weight)	10.9	10.6	21.2	9.8	9.1	12.1	10.7	11.7	10.8	8.1	<0.1	%	PM4/PM0
Hexavalent Chromium #	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	mg/kg	TM38/PM20
Chromium III	37.5	50.8	64.0	40.2	37.4	40.5	34.4	39.9	35.8	35.7	<0.5	mg/kg	NONE/NONE
Total Organic Carbon #	0.36	0.30	1.06	0.35	0.66	0.32	0.37	0.36	0.34	0.69	<0.02	%	TM21/PM24
pH #	8.57	8.65	8.29	8.43	8.67	8.58	8.62	8.55	8.53	8.42	<0.01	pH units	TM73/PM11
Mass of raw test portion	0.101	0.091	0.1107	0.099	0.099	0.0984	0.1014	0.1029	0.1007	0.0982		kg	NONE/PM17
Mass of dried test portion	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09		kg	NONE/PM17

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/1406

Report : CEN 10:1 1 Batch

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	Please see attached notes for all abbreviations and acronyms		
Sample ID	WS08	WS08	WS08	WS09	WS09	WS09	WS10	WS10	WS10	WS11			
Depth	0.70	1.70	2.60	0.70	1.70	2.60	0.70	1.70	2.30	0.70			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	17/01/2020	17/01/2020	17/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	LOD/LOR	Units	Method No.
Dissolved Antimony #	<0.002	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	0.002	<0.002	mg/l	TM30/PM17
Dissolved Antimony (A10) #	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	mg/kg	TM30/PM17
Dissolved Arsenic #	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	mg/l	TM30/PM17
Dissolved Arsenic (A10) #	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	mg/kg	TM30/PM17
Dissolved Barium #	0.009	<0.003	0.005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	mg/l	TM30/PM17
Dissolved Barium (A10) #	0.09	<0.03	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM30/PM17
Dissolved Cadmium #	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	mg/l	TM30/PM17
Dissolved Cadmium (A10) #	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	mg/kg	TM30/PM17
Dissolved Chromium #	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	mg/l	TM30/PM17
Dissolved Chromium (A10) #	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	mg/kg	TM30/PM17
Dissolved Copper #	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	mg/l	TM30/PM17
Dissolved Copper (A10) #	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	TM30/PM17
Dissolved Lead #	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	mg/l	TM30/PM17
Dissolved Lead (A10) #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM30/PM17
Dissolved Molybdenum #	0.020	0.015	0.030	0.004	0.013	0.027	0.005	0.013	0.015	0.005	<0.002	mg/l	TM30/PM17
Dissolved Molybdenum (A10) #	0.20	0.15	0.30	0.04	0.13	0.27	0.05	0.13	0.15	0.05	<0.02	mg/kg	TM30/PM17
Dissolved Nickel #	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	mg/l	TM30/PM17
Dissolved Nickel (A10) #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM30/PM17
Dissolved Selenium #	<0.003	<0.003	0.023	<0.003	<0.003	0.006	<0.003	<0.003	<0.003	<0.003	<0.003	mg/l	TM30/PM17
Dissolved Selenium (A10) #	<0.03	<0.03	0.23	<0.03	<0.03	0.06	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM30/PM17
Dissolved Zinc #	<0.003	<0.003	0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	mg/l	TM30/PM17
Dissolved Zinc (A10) #	<0.03	<0.03	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM30/PM17
Mercury Dissolved by CVAF #	0.00002	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	mg/l	TM61/PM0
Mercury Dissolved by CVAF #	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	mg/kg	TM61/PM0
Phenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/l	TM26/PM0
Phenol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM26/PM0
Fluoride	0.3	<0.6AA	<1.2AB	<0.6AA	<0.6AA	<0.6AA	<0.6AA	<0.3	<0.3	0.4	<0.3	mg/l	TM173/PM0
Fluoride	<3	<6AA	<12AB	<6AA	<6AA	<6AA	<6AA	<3	<3	4	<3	mg/kg	TM173/PM0
Sulphate as SO4 #	0.9	1.0	18.7	0.7	0.6	1.4	<0.5	0.6	0.6	<0.5	<0.5	mg/l	TM38/PM0
Sulphate as SO4 #	9	10	187	7	6	14	<5	6	6	<5	<5	mg/kg	TM38/PM0
Chloride #	<0.3	<0.3	5.3	0.4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	mg/l	TM38/PM0
Chloride #	<3	<3	53	4	<3	<3	<3	<3	<3	<3	<3	mg/kg	TM38/PM0
Dissolved Organic Carbon	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	mg/l	TM60/PM0
Dissolved Organic Carbon	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	mg/kg	TM60/PM0
pH	8.16	8.17	8.12	8.13	8.27	8.05	8.17	7.69	8.03	8.18	<0.01	pH units	TM73/PM0
Total Dissolved Solids #	63	73	69	73	58	55	66	88	58	115	<35	mg/l	TM20/PM0
Total Dissolved Solids #	630	730	690	730	580	550	660	880	580	1151	<350	mg/kg	TM20/PM0

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/1406

Report : CEN 10:1 1 Batch

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	31-33	34-36	37-39	40-42	43-45	46-48	49-51	52-54	55-57	58-60	Please see attached notes for all abbreviations and acronyms		
Sample ID	WS11	WS11	WS12	WS12	WS12	WS13	WS13	WS14	WS14	WS14			
Depth	1.70	2.20	0.70	1.70	2.50	0.70	1.40	0.70	1.70	2.70			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	16/01/2020	16/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	LOD/LOR	Units	Method No.
Dissolved Antimony #	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	mg/l	TM30/PM17
Dissolved Antimony (A10) #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM30/PM17
Dissolved Arsenic #	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	mg/l	TM30/PM17
Dissolved Arsenic (A10) #	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	mg/kg	TM30/PM17
Dissolved Barium #	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	mg/l	TM30/PM17
Dissolved Barium (A10) #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM30/PM17
Dissolved Cadmium #	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	mg/l	TM30/PM17
Dissolved Cadmium (A10) #	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	mg/kg	TM30/PM17
Dissolved Chromium #	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	mg/l	TM30/PM17
Dissolved Chromium (A10) #	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	mg/kg	TM30/PM17
Dissolved Copper #	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	mg/l	TM30/PM17
Dissolved Copper (A10) #	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	TM30/PM17
Dissolved Lead #	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	mg/l	TM30/PM17
Dissolved Lead (A10) #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM30/PM17
Dissolved Molybdenum #	0.014	0.015	<0.002	0.014	0.020	0.003	0.007	0.004	0.011	0.027	<0.002	mg/l	TM30/PM17
Dissolved Molybdenum (A10) #	0.14	0.15	<0.02	0.14	0.20	0.03	0.07	0.04	0.11	0.27	<0.02	mg/kg	TM30/PM17
Dissolved Nickel #	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	mg/l	TM30/PM17
Dissolved Nickel (A10) #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM30/PM17
Dissolved Selenium #	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.045	<0.003	mg/l	TM30/PM17
Dissolved Selenium (A10) #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.45	<0.03	mg/kg	TM30/PM17
Dissolved Zinc #	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	mg/l	TM30/PM17
Dissolved Zinc (A10) #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM30/PM17
Mercury Dissolved by CVAF #	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	mg/l	TM61/PM0
Mercury Dissolved by CVAF #	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	mg/kg	TM61/PM0
Phenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/l	TM26/PM0
Phenol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM26/PM0
Fluoride	<0.3	<0.3	0.3	<0.3	<0.3	0.4	0.3	1.7	0.3	0.3	<0.3	mg/l	TM173/PM0
Fluoride	<3	<3	<3	<3	<3	4	<3	17	<3	3	<3	mg/kg	TM173/PM0
Sulphate as SO4 #	<0.5	0.6	1.0	0.6	1.3	0.5	0.5	<0.5	0.6	1.7	<0.5	mg/l	TM38/PM0
Sulphate as SO4 #	<5	6	10	6	13	5	<5	<5	6	17	<5	mg/kg	TM38/PM0
Chloride #	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	mg/l	TM38/PM0
Chloride #	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	mg/kg	TM38/PM0
Dissolved Organic Carbon	<2	<2	10	<2	<2	<2	<2	<2	<2	<2	<2	mg/l	TM60/PM0
Dissolved Organic Carbon	<20	<20	100	<20	<20	<20	<20	<20	<20	<20	<20	mg/kg	TM60/PM0
pH	8.23	8.15	7.64	7.65	7.74	7.77	7.73	8.63	8.13	7.90	<0.01	pH units	TM73/PM0
Total Dissolved Solids #	55	48	<35	58	130	119	82	71	43	42	<35	mg/l	TM20/PM0
Total Dissolved Solids #	550	480	<350	580	1300	1190	820	710	430	420	<350	mg/kg	TM20/PM0

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/1406

Report : EN12457_2
Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30						
Sample ID	WS08	WS08	WS08	WS09	WS09	WS09	WS10	WS10	WS10	WS11						
Depth	0.70	1.70	2.60	0.70	1.70	2.60	0.70	1.70	2.30	0.70						
COC No / misc																
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T						
Sample Date	17/01/2020	17/01/2020	17/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020						
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil						
Batch Number	1	1	1	1	1	1	1	1	1	1	Inert	Stable Non-reactive	Hazardous	LOD LOR	Units	Method No.
Date of Receipt	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020						
Solid Waste Analysis																
Total Organic Carbon #	0.44	0.36	0.69	0.38	0.40	0.69	0.37	0.37	0.49	0.39	3	5	6	<0.02	%	TM21/PM24
Sum of BTEX	<0.025	<0.025	<0.025 ^{SV}	<0.025	<0.025	<0.025 ^{SV}	<0.025	<0.025	0.058	<0.025	6	-	-	<0.025	mg/kg	TM31/PM12
Sum of 7 PCBs #	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	1	-	-	<0.035	mg/kg	TM17/PM8
Mineral Oil	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	500	-	-	<30	mg/kg	TM5/PM8/PM16
PAH Sum of 6 #	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	-	-	-	<0.22	mg/kg	TM4/PM8
PAH Sum of 17	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	100	-	-	<0.64	mg/kg	TM4/PM8
CEN 10:1 Leachate																
Arsenic #	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.5	2	25	<0.025	mg/kg	TM30/PM17
Barium #	0.09	<0.03	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	20	100	300	<0.03	mg/kg	TM30/PM17
Cadmium #	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.04	1	5	<0.005	mg/kg	TM30/PM17
Chromium #	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	0.5	10	70	<0.015	mg/kg	TM30/PM17
Copper #	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	2	50	100	<0.07	mg/kg	TM30/PM17
Mercury #	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.01	0.2	2	<0.0001	mg/kg	TM61/PM10
Molybdenum #	0.20	0.15	0.30	0.04	0.13	0.27	0.05	0.13	0.15	0.05	0.5	10	30	<0.02	mg/kg	TM30/PM17
Nickel #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.4	10	40	<0.02	mg/kg	TM30/PM17
Lead #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.5	10	50	<0.05	mg/kg	TM30/PM17
Antimony #	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	0.06	0.7	5	<0.02	mg/kg	TM30/PM17
Selenium #	<0.03	<0.03	0.23	<0.03	<0.03	0.06	<0.03	<0.03	<0.03	<0.03	0.1	0.5	7	<0.03	mg/kg	TM30/PM17
Zinc #	<0.03	<0.03	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	4	50	200	<0.03	mg/kg	TM30/PM17
Total Dissolved Solids #	630	730	690	730	580	550	660	880	580	1151	4000	60000	100000	<350	mg/kg	TM20/PM0
Dissolved Organic Carbon	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	500	800	1000	<20	mg/kg	TM60/PM0
Mass of raw test portion	0.0999	0.0994	0.0983	0.1026	0.101	0.0984	0.1031	0.1014	0.1027	0.1002	-	-	-		kg	NONE/PM17
Dry Matter Content Ratio	90.1	91.0	91.7	87.7	88.8	91.5	87.5	88.7	87.8	89.6	-	-	-	<0.1	%	NONE/PM4
Leachant Volume	0.89	0.891	0.892	0.887	0.889	0.892	0.887	0.888	0.887	0.89	-	-	-		l	NONE/PM17
Eluate Volume	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	-	-	-		l	NONE/PM17
pH #	8.30	8.44	8.33	8.55	8.60	8.65	8.48	8.56	8.66	8.60	-	-	-	<0.01	pH units	TM73/PM11
Phenol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1	-	-	<0.1	mg/kg	TM26/PM0
Fluoride	<3	<6 _{BA}	<12 _{BB}	<6 _{BA}	<6 _{BA}	<6 _{BA}	<6 _{BA}	<3	<3	4	-	-	-	<3	mg/kg	TM173/PM0
Sulphate as SO4 #	9	10	187	7	6	14	<5	6	6	<5	1000	20000	50000	<5	mg/kg	TM38/PM0
Chloride #	<3	<3	53	4	<3	<3	<3	<3	<3	<3	800	15000	25000	<3	mg/kg	TM38/PM0

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/1406

Report : EN12457_2
Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	31-33	34-36	37-39	40-42	43-45	46-48	49-51	52-54	55-57	58-60						
Sample ID	WS11	WS11	WS12	WS12	WS12	WS13	WS13	WS14	WS14	WS14						
Depth	1.70	2.20	0.70	1.70	2.50	0.70	1.40	0.70	1.70	2.70						
COC No / misc																
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T						
Sample Date	16/01/2020	16/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020						
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil						
Batch Number	1	1	1	1	1	1	1	1	1	1	Inert	Stable Non-reactive	Hazardous	LOD LOR	Units	Method No.
Date of Receipt	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020	30/01/2020						
Solid Waste Analysis																
Total Organic Carbon #	0.36	0.30	1.06	0.35	0.66	0.32	0.37	0.36	0.34	0.69	3	5	6	<0.02	%	TM21/PM24
Sum of BTEX	<0.025	0.026	<0.025	<0.025	<0.025 ^{SV}	<0.025	<0.025	<0.025	<0.025	<0.025 ^{SV}	6	-	-	<0.025	mg/kg	TM31/PM12
Sum of 7 PCBs #	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	1	-	-	<0.035	mg/kg	TM17/PM8
Mineral Oil	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	500	-	-	<30	mg/kg	TM5/PM8/PM16
PAH Sum of 6 #	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	-	-	-	<0.22	mg/kg	TM4/PM8
PAH Sum of 17	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	100	-	-	<0.64	mg/kg	TM4/PM8
CEN 10:1 Leachate																
Arsenic #	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.5	2	25	<0.025	mg/kg	TM30/PM17
Barium #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	20	100	300	<0.03	mg/kg	TM30/PM17
Cadmium #	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.04	1	5	<0.005	mg/kg	TM30/PM17
Chromium #	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	0.5	10	70	<0.015	mg/kg	TM30/PM17
Copper #	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	2	50	100	<0.07	mg/kg	TM30/PM17
Mercury #	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.01	0.2	2	<0.0001	mg/kg	TM30/PM17
Molybdenum #	0.14	0.15	<0.02	0.14	0.20	0.03	0.07	0.04	0.11	0.27	0.5	10	30	<0.02	mg/kg	TM30/PM17
Nickel #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.4	10	40	<0.02	mg/kg	TM30/PM17
Lead #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.5	10	50	<0.05	mg/kg	TM30/PM17
Antimony #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.06	0.7	5	<0.02	mg/kg	TM30/PM17
Selenium #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.45	0.1	0.5	7	<0.03	mg/kg	TM30/PM17
Zinc #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	4	50	200	<0.03	mg/kg	TM30/PM17
Total Dissolved Solids #	550	480	<350	580	1300	1190	820	710	430	420	4000	60000	100000	<350	mg/kg	TM20/PM0
Dissolved Organic Carbon	<20	<20	100	<20	<20	<20	<20	<20	<20	<20	500	800	1000	<20	mg/kg	TM60/PM0
Mass of raw test portion	0.101	0.091	0.1107	0.099	0.099	0.0984	0.1014	0.1029	0.1007	0.0982	-	-	-		kg	NONE/PM17
Dry Matter Content Ratio	89.0	98.4	81.4	90.9	90.8	91.5	89.2	87.8	89.4	91.5	-	-	-	<0.1	%	NONE/PM4
Leachant Volume	0.889	0.899	0.879	0.891	0.891	0.892	0.889	0.887	0.889	0.892	-	-	-		l	NONE/PM17
Eluate Volume	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	-	-	-		l	NONE/PM17
pH #	8.57	8.65	8.29	8.43	8.67	8.58	8.62	8.55	8.53	8.42	-	-	-	<0.01	pH units	TM73/PM11
Phenol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1	-	-	<0.1	mg/kg	TM26/PM0
Fluoride	<3	<3	<3	<3	<3	4	<3	17	<3	3	-	-	-	<3	mg/kg	TM173/PM0
Sulphate as SO4 #	<5	6	10	6	13	5	<5	<5	6	17	1000	20000	50000	<5	mg/kg	TM38/PM0
Chloride #	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	800	15000	25000	<3	mg/kg	TM38/PM0

Please see attached notes for all abbreviations and acronyms

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton

Matrix : Solid

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	EPH Interpretation
20/1406	1	WS08	0.70	1-3	No interpretation possible
20/1406	1	WS08	1.70	4-6	No interpretation possible
20/1406	1	WS08	2.60	7-9	No interpretation possible
20/1406	1	WS09	0.70	10-12	No interpretation possible
20/1406	1	WS09	1.70	13-15	No interpretation possible
20/1406	1	WS09	2.60	16-18	No interpretation possible
20/1406	1	WS10	0.70	19-21	No interpretation possible
20/1406	1	WS10	1.70	22-24	No interpretation possible
20/1406	1	WS10	2.30	25-27	No interpretation possible
20/1406	1	WS11	0.70	28-30	No interpretation possible
20/1406	1	WS11	1.70	31-33	No interpretation possible
20/1406	1	WS11	2.20	34-36	No interpretation possible
20/1406	1	WS12	0.70	37-39	No interpretation possible
20/1406	1	WS12	1.70	40-42	No interpretation possible
20/1406	1	WS12	2.50	43-45	No interpretation possible
20/1406	1	WS13	0.70	46-48	No interpretation possible
20/1406	1	WS13	1.40	49-51	No interpretation possible
20/1406	1	WS14	0.70	52-54	No interpretation possible
20/1406	1	WS14	1.70	55-57	No interpretation possible
20/1406	1	WS14	2.70	58-60	No interpretation possible

Client Name: Ground Investigations Ireland
Reference: 19/12/9338
Location: Sandford Park Milltown
Contact: Barry Sexton

Note:
 Asbestos Screen analysis is carried out in accordance with our documented in-house methods PM042 and TM065 and HSG 248 by Stereo and Polarised Light Microscopy using Dispersion Staining Techniques and is covered by our UKAS accreditation. Detailed Gravimetric Quantification and PCOM Fibre Analysis is carried out in accordance with our documented in-house methods PM042 and TM131 and HSG 248 using Stereo and Polarised Light Microscopy and Phase Contrast Optical Microscopy (PCOM). Samples are retained for not less than 6 months from the date of analysis unless specifically requested.

Opinions, including ACM type and Asbestos level less than 0.1%, lie outside the scope of our UKAS accreditation.

Where the sample is not taken by a Element Materials Technology consultant, Element Materials Technology cannot be responsible for inaccurate or unrepresentative sampling.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Date Of Analysis	Analysis	Result
20/1406	1	WS08	0.70	2	31/01/2020	General Description (Bulk Analysis)	soil-stones
					31/01/2020	Asbestos Fibres	NAD
					31/01/2020	Asbestos ACM	NAD
					31/01/2020	Asbestos Type	NAD
					31/01/2020	Asbestos Level Screen	NAD
20/1406	1	WS08	1.70	5	31/01/2020	General Description (Bulk Analysis)	soil-stones
					31/01/2020	Asbestos Fibres	NAD
					31/01/2020	Asbestos ACM	NAD
					31/01/2020	Asbestos Type	NAD
					31/01/2020	Asbestos Level Screen	NAD
20/1406	1	WS08	2.60	8	03/02/2020	General Description (Bulk Analysis)	soil-stones
					03/02/2020	Asbestos Fibres	NAD
					03/02/2020	Asbestos ACM	NAD
					03/02/2020	Asbestos Type	NAD
					03/02/2020	Asbestos Level Screen	NAD
20/1406	1	WS09	0.70	11	31/01/2020	General Description (Bulk Analysis)	soil-stones
					31/01/2020	Asbestos Fibres	NAD
					31/01/2020	Asbestos ACM	NAD
					31/01/2020	Asbestos Type	NAD
					31/01/2020	Asbestos Level Screen	NAD
20/1406	1	WS09	1.70	14	31/01/2020	General Description (Bulk Analysis)	soil-stones
					31/01/2020	Asbestos Fibres	NAD
					31/01/2020	Asbestos ACM	NAD
					31/01/2020	Asbestos Type	NAD
					31/01/2020	Asbestos Level Screen	NAD
20/1406	1	WS09	2.60	17	03/02/2020	General Description (Bulk Analysis)	soil-stones
					03/02/2020	Asbestos Fibres	NAD
					03/02/2020	Asbestos ACM	NAD
					03/02/2020	Asbestos Type	NAD
					03/02/2020	Asbestos Level Screen	NAD
20/1406	1	WS10	0.70	20	03/02/2020	General Description (Bulk Analysis)	soil-stones
					03/02/2020	Asbestos Fibres	NAD
					03/02/2020	Asbestos ACM	NAD

Client Name: Ground Investigations Ireland
Reference: 19/12/9338
Location: Sandford Park Milltown
Contact: Barry Sexton

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Date Of Analysis	Analysis	Result
20/1406	1	WS10	0.70	20	03/02/2020	Asbestos Type	NAD
					03/02/2020	Asbestos Level Screen	NAD
20/1406	1	WS10	1.70	23	03/02/2020	General Description (Bulk Analysis)	soil-stones
					03/02/2020	Asbestos Fibres	NAD
					03/02/2020	Asbestos ACM	NAD
					03/02/2020	Asbestos Type	NAD
					03/02/2020	Asbestos Level Screen	NAD
20/1406	1	WS10	2.30	26	03/02/2020	General Description (Bulk Analysis)	soil-stones
					03/02/2020	Asbestos Fibres	NAD
					03/02/2020	Asbestos ACM	NAD
					03/02/2020	Asbestos Type	NAD
					03/02/2020	Asbestos Level Screen	NAD
20/1406	1	WS11	0.70	29	03/02/2020	General Description (Bulk Analysis)	soil-stones
					03/02/2020	Asbestos Fibres	NAD
					03/02/2020	Asbestos ACM	NAD
					03/02/2020	Asbestos Type	NAD
					03/02/2020	Asbestos Level Screen	NAD
20/1406	1	WS11	1.70	32	03/02/2020	General Description (Bulk Analysis)	soil-stones
					03/02/2020	Asbestos Fibres	NAD
					03/02/2020	Asbestos ACM	NAD
					03/02/2020	Asbestos Type	NAD
					03/02/2020	Asbestos Level Screen	NAD
20/1406	1	WS11	2.20	35	03/02/2020	General Description (Bulk Analysis)	soil-stones
					03/02/2020	Asbestos Fibres	NAD
					03/02/2020	Asbestos ACM	NAD
					03/02/2020	Asbestos Type	NAD
					03/02/2020	Asbestos Level Screen	NAD
20/1406	1	WS12	0.70	38	03/02/2020	General Description (Bulk Analysis)	Soil/Stones
					03/02/2020	Asbestos Fibres	NAD
					03/02/2020	Asbestos ACM	NAD
					03/02/2020	Asbestos Type	NAD
					03/02/2020	Asbestos Level Screen	NAD
20/1406	1	WS12	1.70	41	03/02/2020	General Description (Bulk Analysis)	Soil/Stones
					03/02/2020	Asbestos Fibres	NAD
					03/02/2020	Asbestos ACM	NAD
					03/02/2020	Asbestos Type	NAD
					03/02/2020	Asbestos Level Screen	NAD
20/1406	1	WS12	2.50	44	03/02/2020	General Description (Bulk Analysis)	Soil/Stones
					03/02/2020	Asbestos Fibres	NAD
					03/02/2020	Asbestos ACM	NAD
					03/02/2020	Asbestos Type	NAD
					03/02/2020	Asbestos Level Screen	NAD
20/1406	1	WS13	0.70	47	03/02/2020	General Description (Bulk Analysis)	Soil/Stones
					03/02/2020	Asbestos Fibres	NAD

Client Name: Ground Investigations Ireland
Reference: 19/12/9338
Location: Sandford Park Milltown
Contact: Barry Sexton

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Date Of Analysis	Analysis	Result
20/1406	1	WS13	0.70	47	03/02/2020	Asbestos ACM	NAD
					03/02/2020	Asbestos Type	NAD
					03/02/2020	Asbestos Level Screen	NAD
20/1406	1	WS13	1.40	50	03/02/2020	General Description (Bulk Analysis)	soil.stones
					03/02/2020	Asbestos Fibres	NAD
					03/02/2020	Asbestos ACM	NAD
					03/02/2020	Asbestos Type	NAD
					03/02/2020	Asbestos Level Screen	NAD
20/1406	1	WS14	0.70	53	03/02/2020	General Description (Bulk Analysis)	soil.stones
					03/02/2020	Asbestos Fibres	NAD
					03/02/2020	Asbestos ACM	NAD
					03/02/2020	Asbestos Type	NAD
					03/02/2020	Asbestos Level Screen	NAD
20/1406	1	WS14	1.70	56	03/02/2020	General Description (Bulk Analysis)	soil-stones
					03/02/2020	Asbestos Fibres	NAD
					03/02/2020	Asbestos ACM	NAD
					03/02/2020	Asbestos Type	NAD
					03/02/2020	Asbestos Level Screen	NAD
20/1406	1	WS14	2.70	59	03/02/2020	General Description (Bulk Analysis)	soil-stones
					03/02/2020	Asbestos Fibres	NAD
					03/02/2020	Asbestos ACM	NAD
					03/02/2020	Asbestos Type	NAD
					03/02/2020	Asbestos Level Screen	NAD

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton

Matrix : Solid

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
20/1406	1	WS08	0.70	1-3	EPH	Sample holding time exceeded
20/1406	1	WS08	1.70	4-6	EPH	Sample holding time exceeded
20/1406	1	WS08	2.60	7-9	EPH, GRO	Sample holding time exceeded
20/1406	1	WS09	0.70	10-12	EPH	Sample holding time exceeded
20/1406	1	WS09	1.70	13-15	EPH	Sample holding time exceeded
20/1406	1	WS09	2.60	16-18	EPH, GRO	Sample holding time exceeded
20/1406	1	WS10	0.70	19-21	EPH, PAH, PCB	Sample holding time exceeded
20/1406	1	WS10	1.70	22-24	EPH, PAH, PCB	Sample holding time exceeded
20/1406	1	WS10	2.30	25-27	EPH, PAH, PCB	Sample holding time exceeded
20/1406	1	WS11	0.70	28-30	EPH, PAH, PCB	Sample holding time exceeded
20/1406	1	WS11	1.70	31-33	EPH, PAH, PCB	Sample holding time exceeded
20/1406	1	WS11	2.20	34-36	EPH, PAH, PCB	Sample holding time exceeded
20/1406	1	WS12	0.70	37-39	EPH, PAH, PCB	Sample holding time exceeded
20/1406	1	WS12	1.70	40-42	EPH, PAH, PCB	Sample holding time exceeded
20/1406	1	WS12	2.50	43-45	EPH, GRO, PAH, PCB	Sample holding time exceeded
20/1406	1	WS13	0.70	46-48	EPH, PAH, PCB	Sample holding time exceeded
20/1406	1	WS13	1.40	49-51	EPH	Sample holding time exceeded
20/1406	1	WS14	0.70	52-54	EPH, PAH, PCB	Sample holding time exceeded
20/1406	1	WS14	1.70	55-57	EPH, PAH, PCB	Sample holding time exceeded
20/1406	1	WS14	2.70	58-60	EPH, GRO, PAH, PCB	Sample holding time exceeded

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating.
Only analyses which are accredited are recorded as deviating if set criteria are not met.

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 20/1406

SOILS

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCl (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overestimate when other sulphides such as Barite (Barium Sulphate) are present.

WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a UKAS requirement for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.

Please include all sections of this report if it is reproduced

REPORTS FROM THE SOUTH AFRICA LABORATORY

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
>>	Results above calibration range, the result should be considered the minimum value. The actual result could be significantly higher, this result is not accredited.
*	Analysis subcontracted to an Element Materials Technology approved laboratory.
AD	Samples are dried at 35°C ±5°C
CO	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
N	Client Sample
TB	Trip Blank Sample
OC	Outside Calibration Range
AA	x2 Dilution

AB	x4 Dilution
BA	x2 Dilution
BB	x4 Dilution

EMT Job No: 20/1406

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465 and BS1377.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM4	Modified USEPA 8270 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM5	Modified 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM16	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	
TM5	Modified 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	Yes
TM5	Modified 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details			AR	Yes
TM17	Modified US EPA method 8270. Determination of specific Polychlorinated Biphenyl congeners by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM20	Modified BS 1377-3: 1990/USEPA 160.3 Gravimetric determination of Total Dissolved Solids/Total Solids	PM0	No preparation is required.	Yes		AR	Yes
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil, March 2012 v4.	PM24	Dried and ground solid samples are washed with hydrochloric acid, then rinsed with deionised water to remove the mineral carbon before TOC analysis.	Yes		AD	Yes

EMT Job No: 20/1406

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.			AR	Yes
TM30	Determination of Trace Metal elements by ICP-OES (Inductively Coupled Plasma - Optical Emission Spectrometry). Modified US EPA Method 200.7, 6010B and BS EN ISO 11885 2009	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.			AD	Yes
TM30	Determination of Trace Metal elements by ICP-OES (Inductively Coupled Plasma - Optical Emission Spectrometry). Modified US EPA Method 200.7, 6010B and BS EN ISO 11885 2009	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.	Yes		AD	Yes
TM30	Determination of Trace Metal elements by ICP-OES (Inductively Coupled Plasma - Optical Emission Spectrometry). Modified US EPA Method 200.7, 6010B and BS EN ISO 11885 2009	PM17	Modified method BS EN12457-2 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.	Yes		AR	Yes
TM31	Modified USEPA 8015B. Determination of Methylterbutylether, Benzene, Toluene, Ethylbenzene and Xylene by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM31	Modified USEPA 8015B. Determination of Methylterbutylether, Benzene, Toluene, Ethylbenzene and Xylene by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM36	Modified US EPA method 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results can be confirmed using GCMS.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM36	Modified US EPA method 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results can be confirmed using GCMS.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods 325.2 (Chloride), 375.4 (Sulphate), 365.2 (o-Phosphate), 353.1 (TON), 354.1 (Nitrite), 350.1 (NH4+) comparable to BS ISO 15923-1, 7196A (Hex Cr)	PM0	No preparation is required.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods 325.2 (Chloride), 375.4 (Sulphate), 365.2 (o-Phosphate), 353.1 (TON), 354.1 (Nitrite), 350.1 (NH4+) comparable to BS ISO 15923-1, 7196A (Hex Cr)	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AR	Yes

EMT Job No: 20/1406

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM60	TC/TOC analysis of Waters by High Temperature Combustion followed by NDIR detection. Based on the following modified standard methods: USEPA 9060, APHA Standard Methods for Examination of Water and Wastewater 5310B, ASTM D 7573, and USEPA 415.1.	PM0	No preparation is required.			AR	Yes
TM61	Modified US EPA methods 245.7 and 200.7. Determination of Mercury by Cold Vapour Atomic Fluorescence.	PM0	No preparation is required.	Yes		AR	Yes
TM65	Asbestos Bulk Identification method based on HSG 248.	PM42	Solid samples undergo a thorough visual inspection for asbestos fibres prior to asbestos identification using TM065.	Yes		AR	
TM73	Modified US EPA methods 150.1 and 9045D and BS1377:1990. Determination of pH by Metrohm automated probe analyser.	PM0	No preparation is required.			AR	Yes
TM73	Modified US EPA methods 150.1 and 9045D and BS1377:1990. Determination of pH by Metrohm automated probe analyser.	PM11	Extraction of as received solid samples using one part solid to 2.5 parts deionised water.	Yes		AR	No
TM173	Analysis of fluoride by ISE (Ion Selective Electrode) using modified ISE method 340.2	PM0	No preparation is required.			AR	Yes
NONE	No Method Code	NONE	No Method Code			AD	Yes
NONE	No Method Code	PM17	Modified method BS EN12457-2 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.				
NONE	No Method Code	PM17	Modified method BS EN12457-2 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.			AR	
NONE	No Method Code	PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465 and BS1377.			AR	

Ground Investigations Ireland
Catherinestown House
Hazelhatch Road
Newcastle
Co. Dublin
Ireland



Attention : Barry Sexton
Date : 6th February, 2020
Your reference : 9338-12-19
Our reference : Test Report 20/1186 Batch 1
Location : Sandford Park Milltown
Date samples received : 27th January, 2020
Status : Final report
Issue : 1

Nine samples were received for analysis on 27th January, 2020 of which nine were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.
All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:



Phil Sommerton BSc
Senior Project Manager

Please include all sections of this report if it is reproduced

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/1186

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27				
Sample ID	CBR01	CBR02	CBR03	CBR04	CBR06	CBR07	CBR08	CBR09	CBR10				
Depth	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70				
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T				
Sample Date	21/01/2020	21/01/2020	20/01/2020	20/01/2020	21/01/2020	21/01/2020	21/01/2020	21/01/2020	21/01/2020				
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil				
Batch Number	1	1	1	1	1	1	1	1	1				
Date of Receipt	27/01/2020	27/01/2020	27/01/2020	27/01/2020	27/01/2020	27/01/2020	27/01/2020	27/01/2020	27/01/2020				
										LOD/LOR	Units	Method No.	
Antimony	3	3	3	2	3	3	3	3	3	<1	mg/kg	TM30/PM15	
Arsenic #	14.6	14.0	18.8	11.3	15.6	17.9	13.4	15.2	17.4	<0.5	mg/kg	TM30/PM15	
Barium #	104	184	144	135	123	331	126	191	321	<1	mg/kg	TM30/PM15	
Cadmium #	2.3	3.5	4.2	2.7	2.6	5.2	2.8	3.9	5.1	<0.1	mg/kg	TM30/PM15	
Chromium #	74.6	72.7	71.7	59.4	51.7	70.6	76.3	79.6	70.7	<0.5	mg/kg	TM30/PM15	
Copper #	38	37	57	26	45	32	36	39	32	<1	mg/kg	TM30/PM15	
Lead #	30	31	34	24	24	24	34	41	35	<5	mg/kg	TM30/PM15	
Mercury #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15	
Molybdenum #	6.7	6.3	5.5	4.8	5.0	7.5	6.4	7.5	7.3	<0.1	mg/kg	TM30/PM15	
Nickel #	50.3	52.6	88.3	39.4	61.2	73.2	54.6	57.5	69.7	<0.7	mg/kg	TM30/PM15	
Selenium #	3	3	2	2	2	4	<1	3	4	<1	mg/kg	TM30/PM15	
Zinc #	157	139	160	102	131	108	133	130	158	<5	mg/kg	TM30/PM15	
PAH MS													
Naphthalene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8	
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8	
Acenaphthene #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8	
Fluorene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8	
Phenanthrene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8	
Anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8	
Fluoranthene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8	
Pyrene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8	
Benzo(a)anthracene #	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	mg/kg	TM4/PM8	
Chrysene #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM4/PM8	
Benzo(bk)fluoranthene #	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	TM4/PM8	
Benzo(a)pyrene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8	
Indeno(123cd)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8	
Dibenzo(ah)anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8	
Benzo(ghi)perylene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8	
Coronene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8	
PAH 6 Total #	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	mg/kg	TM4/PM8	
PAH 17 Total	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	mg/kg	TM4/PM8	
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8	
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM4/PM8	
Benzo(j)fluoranthene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	mg/kg	TM4/PM8	
PAH Surrogate % Recovery	95	90	94	96	96	91	97	96	98	<0	%	TM4/PM8	
Mineral Oil (C10-C40)	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	mg/kg	TM5/PM8/PM16	

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/1186

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27			
Sample ID	CBR01	CBR02	CBR03	CBR04	CBR06	CBR07	CBR08	CBR09	CBR10			
Depth	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70			
COC No / misc												
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	21/01/2020	21/01/2020	20/01/2020	20/01/2020	21/01/2020	21/01/2020	21/01/2020	21/01/2020	21/01/2020			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1			
Date of Receipt	27/01/2020	27/01/2020	27/01/2020	27/01/2020	27/01/2020	27/01/2020	27/01/2020	27/01/2020	27/01/2020			
										LOD/LOR	Units	Method No.
TPH CWG												
Aliphatics												
>C5-C6 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TMS/PM8/PM16
>C12-C16 #	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	mg/kg	TMS/PM8/PM16
>C16-C21 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>C21-C35 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>C35-C40	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
Total aliphatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	mg/kg	TMS/PM8/PM16/PM12/PM15
>C6-C10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C10-C25	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
>C25-C35	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
Aromatics												
>C5-EC7 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TMS/PM8/PM16
>EC12-EC16 #	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	mg/kg	TMS/PM8/PM16
>EC16-EC21 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>EC21-EC35 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>EC35-EC40	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
Total aromatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	mg/kg	TMS/PM8/PM16/PM12/PM15
Total aliphatics and aromatics(C5-40)	<52	<52	<52	<52	<52	<52	<52	<52	<52	<52	mg/kg	TMS/PM8/PM16/PM12/PM15
>EC6-EC10 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC10-EC25	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
>EC25-EC35	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
MTBE #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
Benzene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
Toluene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
Ethylbenzene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
m/p-Xylene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
o-Xylene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
PCB 28 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 52 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 101 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 118 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 138 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 153 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 180 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
Total 7 PCBs #	<35	<35	<35	<35	<35	<35	<35	<35	<35	<35	ug/kg	TM17/PM8

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/1186

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27				
Sample ID	CBR01	CBR02	CBR03	CBR04	CBR06	CBR07	CBR08	CBR09	CBR10				
Depth	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70				
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T				
Sample Date	21/01/2020	21/01/2020	20/01/2020	20/01/2020	21/01/2020	21/01/2020	21/01/2020	21/01/2020	21/01/2020				
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil				
Batch Number	1	1	1	1	1	1	1	1	1				
Date of Receipt	27/01/2020	27/01/2020	27/01/2020	27/01/2020	27/01/2020	27/01/2020	27/01/2020	27/01/2020	27/01/2020				
										LOD/LOR	Units	Method No.	
Natural Moisture Content	22.6	22.9	21.0	21.1	19.5	21.7	22.3	20.8	24.0	<0.1	%	PM4/PM0	
Moisture Content (% Wet Weight)	18.5	18.6	17.4	17.4	16.4	17.8	18.2	17.2	19.4	<0.1	%	PM4/PM0	
Hexavalent Chromium #	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	mg/kg	TM38/PM20	
Chromium III	74.6	72.7	71.7	59.4	51.7	70.6	76.3	79.6	70.7	<0.5	mg/kg	NONE/NONE	
Total Organic Carbon #	0.86	0.80	0.68	0.65	0.65	0.49	0.81	1.01	0.79	<0.02	%	TM21/PM24	
pH #	8.43	8.33	8.38	8.50	8.38	8.28	8.49	8.51	8.39	<0.01	pH units	TM73/PM11	
Mass of raw test portion	0.1105	0.1134	0.1097	0.1081	0.112	0.11	0.1119	0.108	0.1078		kg	NONE/PM17	
Mass of dried test portion	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09		kg	NONE/PM17	

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/1186

Report : CEN 10:1 1 Batch

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27				
Sample ID	CBR01	CBR02	CBR03	CBR04	CBR06	CBR07	CBR08	CBR09	CBR10				
Depth	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70				
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T				
Sample Date	21/01/2020	21/01/2020	20/01/2020	20/01/2020	21/01/2020	21/01/2020	21/01/2020	21/01/2020	21/01/2020				
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil				
Batch Number	1	1	1	1	1	1	1	1	1				
Date of Receipt	27/01/2020	27/01/2020	27/01/2020	27/01/2020	27/01/2020	27/01/2020	27/01/2020	27/01/2020	27/01/2020				
											LOD/LOR	Units	Method No.
Dissolved Antimony #	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		<0.002	mg/l	TM30/PM17
Dissolved Antimony (A10) #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		<0.02	mg/kg	TM30/PM17
Dissolved Arsenic #	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025	mg/l	TM30/PM17
Dissolved Arsenic (A10) #	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025		<0.025	mg/kg	TM30/PM17
Dissolved Barium #	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003		<0.003	mg/l	TM30/PM17
Dissolved Barium (A10) #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		<0.03	mg/kg	TM30/PM17
Dissolved Cadmium #	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005	mg/l	TM30/PM17
Dissolved Cadmium (A10) #	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	mg/kg	TM30/PM17
Dissolved Chromium #	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015		<0.0015	mg/l	TM30/PM17
Dissolved Chromium (A10) #	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015		<0.015	mg/kg	TM30/PM17
Dissolved Copper #	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007		<0.007	mg/l	TM30/PM17
Dissolved Copper (A10) #	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07		<0.07	mg/kg	TM30/PM17
Dissolved Lead #	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	mg/l	TM30/PM17
Dissolved Lead (A10) #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	mg/kg	TM30/PM17
Dissolved Molybdenum #	0.003	0.003	0.003	0.006	0.002	0.009	0.003	0.004	0.004		<0.002	mg/l	TM30/PM17
Dissolved Molybdenum (A10) #	0.03	0.03	0.03	0.06	<0.02	0.09	0.03	0.04	0.04		<0.02	mg/kg	TM30/PM17
Dissolved Nickel #	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		<0.002	mg/l	TM30/PM17
Dissolved Nickel (A10) #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		<0.02	mg/kg	TM30/PM17
Dissolved Selenium #	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003		<0.003	mg/l	TM30/PM17
Dissolved Selenium (A10) #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		<0.03	mg/kg	TM30/PM17
Dissolved Zinc #	0.003	<0.003	<0.003	0.003	<0.003	<0.003	0.003	<0.003	<0.003		<0.003	mg/l	TM30/PM17
Dissolved Zinc (A10) #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		<0.03	mg/kg	TM30/PM17
Mercury Dissolved by CVAF #	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	0.00003	<0.00001		<0.00001	mg/l	TM61/PM0
Mercury Dissolved by CVAF #	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0003	<0.0001		<0.0001	mg/kg	TM61/PM0
Phenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	mg/l	TM26/PM0
Phenol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	mg/kg	TM26/PM0
Fluoride	1.1	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.5		<0.3	mg/l	TM173/PM0
Fluoride	11	6	5	5	5	6	6	6	5		<3	mg/kg	TM173/PM0
Sulphate as SO4 #	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	mg/l	TM38/PM0
Sulphate as SO4 #	<5	<5	<5	<5	<5	<5	<5	<5	<5		<5	mg/kg	TM38/PM0
Chloride #	<0.3	<0.3	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3		<0.3	mg/l	TM38/PM0
Chloride #	<3	<3	<3	<3	<3	<3	<3	<3	<3		<3	mg/kg	TM38/PM0
Dissolved Organic Carbon	11	3	2	3	3	3	5	3	3		<2	mg/l	TM60/PM0
Dissolved Organic Carbon	110	30	<20	30	30	30	50	30	30		<20	mg/kg	TM60/PM0
pH	8.04	8.21	8.22	8.18	8.13	8.04	8.15	8.18	8.23		<0.01	pH units	TM73/PM0
Total Dissolved Solids #	86	87	68	183	57	57	51	71	102		<35	mg/l	TM20/PM0
Total Dissolved Solids #	860	870	680	1829	570	570	510	710	1020		<350	mg/kg	TM20/PM0

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/1186

Report : EN12457_2
Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27						
Sample ID	CBR01	CBR02	CBR03	CBR04	CBR06	CBR07	CBR08	CBR09	CBR10						
Depth	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70						
COC No / misc															
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T						
Sample Date	21/01/2020	21/01/2020	20/01/2020	20/01/2020	21/01/2020	21/01/2020	21/01/2020	21/01/2020	21/01/2020						
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil						
Batch Number	1	1	1	1	1	1	1	1	1						
Date of Receipt	27/01/2020	27/01/2020	27/01/2020	27/01/2020	27/01/2020	27/01/2020	27/01/2020	27/01/2020	27/01/2020						
										Inert	Stable Non-reactive	Hazardous	LOD LOR	Units	Method No.
Solid Waste Analysis															
Total Organic Carbon #	0.86	0.80	0.68	0.65	0.65	0.49	0.81	1.01	0.79	3	5	6	<0.02	%	TM21/PM24
Sum of BTEX	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	6	-	-	<0.025	mg/kg	TM31/PM12
Sum of 7 PCBs #	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	1	-	-	<0.035	mg/kg	TM17/PM8
Mineral Oil	<30	<30	<30	<30	<30	<30	<30	<30	<30	500	-	-	<30	mg/kg	TM5/PM8/PM16
PAH Sum of 6 #	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	-	-	-	<0.22	mg/kg	TM4/PM8
PAH Sum of 17	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	100	-	-	<0.64	mg/kg	TM4/PM8
CEN 10:1 Leachate															
Arsenic #	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.5	2	25	<0.025	mg/kg	TM30/PM17
Barium #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	20	100	300	<0.03	mg/kg	TM30/PM17
Cadmium #	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.04	1	5	<0.005	mg/kg	TM30/PM17
Chromium #	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	0.5	10	70	<0.015	mg/kg	TM30/PM17
Copper #	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	2	50	100	<0.07	mg/kg	TM30/PM17
Mercury #	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0003	<0.0001	0.01	0.2	2	<0.0001	mg/kg	TM61/PM0
Molybdenum #	0.03	0.03	0.03	0.06	<0.02	0.09	0.03	0.04	0.04	0.5	10	30	<0.02	mg/kg	TM30/PM17
Nickel #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.4	10	40	<0.02	mg/kg	TM30/PM17
Lead #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.5	10	50	<0.05	mg/kg	TM30/PM17
Antimony #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.06	0.7	5	<0.02	mg/kg	TM30/PM17
Selenium #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.1	0.5	7	<0.03	mg/kg	TM30/PM17
Zinc #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	4	50	200	<0.03	mg/kg	TM30/PM17
Total Dissolved Solids #	860	870	680	1829	570	570	510	710	1020	4000	60000	100000	<350	mg/kg	TM20/PM0
Dissolved Organic Carbon	110	30	<20	30	30	30	50	30	30	500	800	1000	<20	mg/kg	TM60/PM0
Mass of raw test portion	0.1105	0.1134	0.1097	0.1081	0.112	0.11	0.1119	0.108	0.1078	-	-	-		kg	NONE/PM17
Dry Matter Content Ratio	81.2	79.0	82.0	83.6	80.7	81.6	80.4	83.4	83.2	-	-	-	<0.1	%	NONE/PM4
Leachant Volume	0.879	0.876	0.88	0.882	0.878	0.88	0.878	0.882	0.882	-	-	-		l	NONE/PM17
Eluate Volume	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	-	-	-		l	NONE/PM17
pH #	8.43	8.33	8.38	8.50	8.38	8.28	8.49	8.51	8.39	-	-	-	<0.01	pH units	TM73/PM11
Phenol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1	-	-	<0.1	mg/kg	TM26/PM0
Fluoride	11	6	5	5	5	6	6	6	5	-	-	-	<3	mg/kg	TM173/PM0
Sulphate as SO4 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	1000	20000	50000	<5	mg/kg	TM38/PM0
Chloride #	<3	<3	<3	<3	<3	<3	<3	<3	<3	800	15000	25000	<3	mg/kg	TM38/PM0

Please see attached notes for all abbreviations and acronyms

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton

Matrix : Solid

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	EPH Interpretation
20/1186	1	CBR01	0.70	1-3	No interpretation possible
20/1186	1	CBR02	0.70	4-6	No interpretation possible
20/1186	1	CBR03	0.70	7-9	No interpretation possible
20/1186	1	CBR04	0.70	10-12	No interpretation possible
20/1186	1	CBR06	0.70	13-15	No interpretation possible
20/1186	1	CBR07	0.70	16-18	No interpretation possible
20/1186	1	CBR08	0.70	19-21	No interpretation possible
20/1186	1	CBR09	0.70	22-24	No interpretation possible
20/1186	1	CBR10	0.70	25-27	No interpretation possible

Client Name: Ground Investigations Ireland
Reference: 19/12/9338
Location: Sandford Park Milltown
Contact: Barry Sexton

Note:
 Asbestos Screen analysis is carried out in accordance with our documented in-house methods PM042 and TM065 and HSG 248 by Stereo and Polarised Light Microscopy using Dispersion Staining Techniques and is covered by our UKAS accreditation. Detailed Gravimetric Quantification and PCOM Fibre Analysis is carried out in accordance with our documented in-house methods PM042 and TM131 and HSG 248 using Stereo and Polarised Light Microscopy and Phase Contrast Optical Microscopy (PCOM). Samples are retained for not less than 6 months from the date of analysis unless specifically requested.

Opinions, including ACM type and Asbestos level less than 0.1%, lie outside the scope of our UKAS accreditation.

Where the sample is not taken by a Element Materials Technology consultant, Element Materials Technology cannot be responsible for inaccurate or unrepresentative sampling.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Date Of Analysis	Analysis	Result
20/1186	1	CBR01	0.70	2	29/01/2020	General Description (Bulk Analysis)	Soil/Stones
					29/01/2020	Asbestos Fibres	NAD
					29/01/2020	Asbestos ACM	NAD
					29/01/2020	Asbestos Type	NAD
					29/01/2020	Asbestos Level Screen	NAD
20/1186	1	CBR02	0.70	5	29/01/2020	General Description (Bulk Analysis)	Soil/Stones
					29/01/2020	Asbestos Fibres	NAD
					29/01/2020	Asbestos ACM	NAD
					29/01/2020	Asbestos Type	NAD
					29/01/2020	Asbestos Level Screen	NAD
20/1186	1	CBR03	0.70	8	29/01/2020	General Description (Bulk Analysis)	Soil/Stones
					29/01/2020	Asbestos Fibres	NAD
					29/01/2020	Asbestos ACM	NAD
					29/01/2020	Asbestos Type	NAD
					29/01/2020	Asbestos Level Screen	NAD
20/1186	1	CBR04	0.70	11	29/01/2020	General Description (Bulk Analysis)	Soil/Stones
					29/01/2020	Asbestos Fibres	NAD
					29/01/2020	Asbestos ACM	NAD
					29/01/2020	Asbestos Type	NAD
					29/01/2020	Asbestos Level Screen	NAD
20/1186	1	CBR06	0.70	14	29/01/2020	General Description (Bulk Analysis)	soil-stones
					29/01/2020	Asbestos Fibres	NAD
					29/01/2020	Asbestos ACM	NAD
					29/01/2020	Asbestos Type	NAD
					29/01/2020	Asbestos Level Screen	NAD
20/1186	1	CBR07	0.70	17	29/01/2020	General Description (Bulk Analysis)	soil-stones
					29/01/2020	Asbestos Fibres	NAD
					29/01/2020	Asbestos ACM	NAD
					29/01/2020	Asbestos Type	NAD
					29/01/2020	Asbestos Level Screen	NAD
20/1186	1	CBR08	0.70	20	29/01/2020	General Description (Bulk Analysis)	Soil/Stones
					29/01/2020	Asbestos Fibres	NAD
					29/01/2020	Asbestos ACM	NAD

Client Name: Ground Investigations Ireland
Reference: 19/12/9338
Location: Sandford Park Milltown
Contact: Barry Sexton

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Date Of Analysis	Analysis	Result
20/1186	1	CBR08	0.70	20	29/01/2020	Asbestos Type	NAD
					29/01/2020	Asbestos Level Screen	NAD
20/1186	1	CBR09	0.70	23	29/01/2020	General Description (Bulk Analysis)	Soil/Stones
					29/01/2020	Asbestos Fibres	NAD
					29/01/2020	Asbestos ACM	NAD
					29/01/2020	Asbestos Type	NAD
					29/01/2020	Asbestos Level Screen	NAD
20/1186	1	CBR10	0.70	26	29/01/2020	General Description (Bulk Analysis)	soil-stones
					29/01/2020	Asbestos Fibres	NAD
					29/01/2020	Asbestos ACM	NAD
					29/01/2020	Asbestos Type	NAD
					29/01/2020	Asbestos Level Screen	NAD

Client Name: Ground Investigations Ireland

Reference: 9338-12-19

Location: Sandford Park Milltown

Contact: Barry Sexton

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 20/1186						

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating. Only analyses which are accredited are recorded as deviating if set criteria are not met.

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 20/1186

SOILS

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCl (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overestimate when other sulphides such as Barite (Barium Sulphate) are present.

WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a UKAS requirement for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.

Please include all sections of this report if it is reproduced

REPORTS FROM THE SOUTH AFRICA LABORATORY

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
>>	Results above calibration range, the result should be considered the minimum value. The actual result could be significantly higher, this result is not accredited.
*	Analysis subcontracted to an Element Materials Technology approved laboratory.
AD	Samples are dried at 35°C ±5°C
CO	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
N	Client Sample
TB	Trip Blank Sample
OC	Outside Calibration Range

EMT Job No: 20/1186

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465 and BS1377.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM4	Modified USEPA 8270 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM5	Modified 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM16	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	
TM5	Modified 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	Yes
TM5	Modified 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details			AR	Yes
TM17	Modified US EPA method 8270. Determination of specific Polychlorinated Biphenyl congeners by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM20	Modified BS 1377-3: 1990/USEPA 160.3 Gravimetric determination of Total Dissolved Solids/Total Solids	PM0	No preparation is required.	Yes		AR	Yes
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil, March 2012 v4.	PM24	Dried and ground solid samples are washed with hydrochloric acid, then rinsed with deionised water to remove the mineral carbon before TOC analysis.	Yes		AD	Yes

EMT Job No: 20/1186

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.			AR	Yes
TM30	Determination of Trace Metal elements by ICP-OES (Inductively Coupled Plasma - Optical Emission Spectrometry). Modified US EPA Method 200.7, 6010B and BS EN ISO 11885 2009	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.			AD	Yes
TM30	Determination of Trace Metal elements by ICP-OES (Inductively Coupled Plasma - Optical Emission Spectrometry). Modified US EPA Method 200.7, 6010B and BS EN ISO 11885 2009	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.	Yes		AD	Yes
TM30	Determination of Trace Metal elements by ICP-OES (Inductively Coupled Plasma - Optical Emission Spectrometry). Modified US EPA Method 200.7, 6010B and BS EN ISO 11885 2009	PM17	Modified method BS EN12457-2 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.	Yes		AR	Yes
TM31	Modified USEPA 8015B. Determination of Methylterbutylether, Benzene, Toluene, Ethylbenzene and Xylene by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM31	Modified USEPA 8015B. Determination of Methylterbutylether, Benzene, Toluene, Ethylbenzene and Xylene by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM36	Modified US EPA method 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results can be confirmed using GCMS.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM36	Modified US EPA method 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results can be confirmed using GCMS.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods 325.2 (Chloride), 375.4 (Sulphate), 365.2 (o-Phosphate), 353.1 (TON), 354.1 (Nitrite), 350.1 (NH4+) comparable to BS ISO 15923-1, 7196A (Hex Cr)	PM0	No preparation is required.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods 325.2 (Chloride), 375.4 (Sulphate), 365.2 (o-Phosphate), 353.1 (TON), 354.1 (Nitrite), 350.1 (NH4+) comparable to BS ISO 15923-1, 7196A (Hex Cr)	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AR	Yes

EMT Job No: 20/1186

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM60	TC/TOC analysis of Waters by High Temperature Combustion followed by NDIR detection. Based on the following modified standard methods: USEPA 9060, APHA Standard Methods for Examination of Water and Wastewater 5310B, ASTM D 7573, and USEPA 415.1.	PM0	No preparation is required.			AR	Yes
TM61	Modified US EPA methods 245.7 and 200.7. Determination of Mercury by Cold Vapour Atomic Fluorescence.	PM0	No preparation is required.	Yes		AR	Yes
TM65	Asbestos Bulk Identification method based on HSG 248.	PM42	Solid samples undergo a thorough visual inspection for asbestos fibres prior to asbestos identification using TM065.	Yes		AR	
TM73	Modified US EPA methods 150.1 and 9045D and BS1377:1990. Determination of pH by Metrohm automated probe analyser.	PM0	No preparation is required.			AR	Yes
TM73	Modified US EPA methods 150.1 and 9045D and BS1377:1990. Determination of pH by Metrohm automated probe analyser.	PM11	Extraction of as received solid samples using one part solid to 2.5 parts deionised water.	Yes		AR	No
TM173	Analysis of fluoride by ISE (Ion Selective Electrode) using modified ISE method 340.2	PM0	No preparation is required.			AR	Yes
NONE	No Method Code	NONE	No Method Code			AD	Yes
NONE	No Method Code	PM17	Modified method BS EN12457-2 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.				
NONE	No Method Code	PM17	Modified method BS EN12457-2 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.			AR	
NONE	No Method Code	PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465 and BS1377.			AR	

Ground Investigations Ireland
Catherinestown House
Hazelhatch Road
Newcastle
Co. Dublin
Ireland



Attention : Barry Sexton
Date : 15th April, 2020
Your reference : 9338-12-19
Our reference : Test Report 20/4896 Batch 1
Location : Sandford Park Milltown
Date samples received : 30th March, 2020
Status : Final report
Issue : 1

Ten samples were received for analysis on 30th March, 2020 of which ten were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:



Phil Sommerton BSc

Senior Project Manager

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Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/4896

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	Please see attached notes for all abbreviations and acronyms		
Sample ID	BH03	BH04	BH05	BH06	BH07	BH08	BH09	BH010	BH011	BH012			
Depth	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	26/03/2020	26/03/2020	26/03/2020	26/03/2020	26/03/2020	27/03/2020	27/03/2020	27/03/2020	27/03/2020	27/03/2020			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	LOD/LOR	Units	Method No.
Antimony	1	2	2	2	1	2	2	2	2	2	<1	mg/kg	TM30/PM15
Arsenic #	6.2	8.8	6.8	10.3	5.2	9.5	10.6	10.0	10.6	10.2	<0.5	mg/kg	TM30/PM15
Barium #	48	59	56	84	39	90	76	75	76	78	<1	mg/kg	TM30/PM15
Cadmium #	1.2	1.8	1.6	2.0	1.0	2.0	2.3	1.8	2.4	1.8	<0.1	mg/kg	TM30/PM15
Chromium #	40.0	47.4	41.8	44.4	28.8	43.9	43.2	42.5	52.4	39.3	<0.5	mg/kg	TM30/PM15
Copper #	19	27	26	33	18	32	28	33	35	32	<1	mg/kg	TM30/PM15
Lead #	14	48	15	18	12	20	17	18	19	17	<5	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Molybdenum #	3.5	3.7	3.6	4.1	2.5	3.7	5.0	4.0	4.3	3.8	<0.1	mg/kg	TM30/PM15
Nickel #	23.7	33.7	33.5	40.2	22.0	38.7	35.6	39.0	38.6	36.3	<0.7	mg/kg	TM30/PM15
Selenium #	2	3	2	3	2	2	3	4	3	6	<1	mg/kg	TM30/PM15
Zinc #	54	73	71	89	50	84	89	83	130	67	<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Acenaphthene #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Fluorene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Phenanthrene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Fluoranthene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Pyrene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	mg/kg	TM4/PM8
Chrysene #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Coronene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
PAH 6 Total #	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	mg/kg	TM4/PM8
PAH 17 Total	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM4/PM8
Benzo(j)fluoranthene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	mg/kg	TM4/PM8
PAH Surrogate % Recovery	76	84	88	89	88	76	94	86	66 ^{SV}	82	<0	%	TM4/PM8
Mineral Oil (C10-C40)	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	mg/kg	TM5/PM8/PM16

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/4896

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30			
Sample ID	BH03	BH04	BH05	BH06	BH07	BH08	BH09	BH010	BH011	BH012			
Depth	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	26/03/2020	26/03/2020	26/03/2020	26/03/2020	26/03/2020	27/03/2020	27/03/2020	27/03/2020	27/03/2020	27/03/2020			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	LOD/LOR	Units	Method No.
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TMS/PM8/PM16
>C12-C16 #	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	mg/kg	TMS/PM8/PM16
>C16-C21 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>C21-C35 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>C35-C40	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
Total aliphatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	mg/kg	TMS/PM8/PM16/PM12/PM15
>C6-C10	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>C10-C25	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
>C25-C35	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
Aromatics													
>C5-EC7 #	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TMS/PM8/PM16
>EC12-EC16 #	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	mg/kg	TMS/PM8/PM16
>EC16-EC21 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>EC21-EC35 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>EC35-EC40	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
Total aromatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	mg/kg	TMS/PM8/PM16/PM12/PM15
Total aliphatics and aromatics(C5-40)	<52	<52	<52	<52	<52	<52	<52	<52	<52	<52	<52	mg/kg	TMS/PM8/PM16/PM12/PM15
>EC6-EC10 #	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>EC10-EC25	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
>EC25-EC35	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
MTBE #	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5	ug/kg	TM36/PM12
Benzene #	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5	ug/kg	TM36/PM12
Toluene #	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5	ug/kg	TM36/PM12
Ethylbenzene #	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5	ug/kg	TM36/PM12
m/p-Xylene #	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5	ug/kg	TM36/PM12
o-Xylene #	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5 ^{SV}	<5	ug/kg	TM36/PM12
PCB 28 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 52 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 101 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 118 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 138 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 153 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 180 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM17/PM8
Total 7 PCBs #	<35	<35	<35	<35	<35	<35	<35	<35	<35	<35	<35	ug/kg	TM17/PM8

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/4896

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	Please see attached notes for all abbreviations and acronyms		
Sample ID	BH03	BH04	BH05	BH06	BH07	BH08	BH09	BH010	BH011	BH012			
Depth	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	26/03/2020	26/03/2020	26/03/2020	26/03/2020	26/03/2020	27/03/2020	27/03/2020	27/03/2020	27/03/2020	27/03/2020			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	LOD/LOR	Units	Method No.
Natural Moisture Content	10.9	12.6	10.4	9.7	11.4	8.5	12.6	11.4	11.4	12.1	<0.1	%	PM4/PM0
Moisture Content (% Wet Weight)	9.8	11.2	9.4	8.8	10.3	7.8	11.2	10.2	10.2	10.8	<0.1	%	PM4/PM0
Hexavalent Chromium #	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	mg/kg	TM38/PM20
Sulphate as SO4 (2:1 Ext) #	0.1184	0.1489	0.2553	-	0.1121	-	0.1614	-	0.1405	-	<0.0015	g/l	TM38/PM20
Chromium III	40.0	47.4	41.8	44.4	28.8	43.9	43.2	42.5	52.4	39.3	<0.5	mg/kg	NONE/NONE
Total Organic Carbon #	0.54	0.57	0.63	0.67	0.71	0.63	0.63	0.68	0.66	0.98	<0.02	%	TM21/PM24
pH #	8.13	8.24	8.02	8.23	8.25	8.20	8.44	8.51	8.29	8.68	<0.01	pH units	TM73/PM11
Mass of raw test portion	0.1035	0.1005	0.1009	0.1009	0.1032	0.0988	0.1024	0.0755	0.1178	0.1088		kg	NONE/PM17
Mass of dried test portion	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09		kg	NONE/PM17

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/4896

Report : CEN 10:1 1 Batch

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	Please see attached notes for all abbreviations and acronyms		
Sample ID	BH03	BH04	BH05	BH06	BH07	BH08	BH09	BH010	BH011	BH012			
Depth	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	26/03/2020	26/03/2020	26/03/2020	26/03/2020	26/03/2020	27/03/2020	27/03/2020	27/03/2020	27/03/2020	27/03/2020			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	LOD/LOR	Units	Method No.
Dissolved Antimony #	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	0.003	<0.002	<0.002	<0.002	<0.002	mg/l	TM30/PM17
Dissolved Antimony (A10) #	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	mg/kg	TM30/PM17
Dissolved Arsenic #	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	mg/l	TM30/PM17
Dissolved Arsenic (A10) #	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	mg/kg	TM30/PM17
Dissolved Barium #	0.019	0.029	0.024	0.024	0.029	0.037	0.033	0.006	0.023	<0.003	<0.003	mg/l	TM30/PM17
Dissolved Barium (A10) #	0.19	0.29	0.24	0.24	0.29	0.37	0.33	0.06	0.23	<0.03	<0.03	mg/kg	TM30/PM17
Dissolved Cadmium #	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	mg/l	TM30/PM17
Dissolved Cadmium (A10) #	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	mg/kg	TM30/PM17
Dissolved Chromium #	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	mg/l	TM30/PM17
Dissolved Chromium (A10) #	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	mg/kg	TM30/PM17
Dissolved Copper #	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	mg/l	TM30/PM17
Dissolved Copper (A10) #	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	TM30/PM17
Dissolved Lead #	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	mg/l	TM30/PM17
Dissolved Lead (A10) #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM30/PM17
Dissolved Molybdenum #	0.022	0.021	0.021	0.026	0.019	0.022	0.022	0.025	0.028	0.021	<0.002	mg/l	TM30/PM17
Dissolved Molybdenum (A10) #	0.22	0.21	0.21	0.26	0.19	0.22	0.22	0.25	0.28	0.21	<0.02	mg/kg	TM30/PM17
Dissolved Nickel #	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	mg/l	TM30/PM17
Dissolved Nickel (A10) #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM30/PM17
Dissolved Selenium #	0.021	0.021	<0.003	0.027	0.028	0.039	0.034	0.015	0.030	<0.003	<0.003	mg/l	TM30/PM17
Dissolved Selenium (A10) #	0.21	0.21	<0.03	0.27	0.28	0.39	0.34	0.15	0.30	<0.03	<0.03	mg/kg	TM30/PM17
Dissolved Zinc #	0.004	0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.003	<0.003	<0.003	mg/l	TM30/PM17
Dissolved Zinc (A10) #	0.04	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM30/PM17
Mercury Dissolved by CVAF #	<0.00001	<0.00001	<0.00001	<0.00002 _{AA}	<0.00001	0.00001	0.00001	<0.00001	0.00001	<0.00001	<0.00001	mg/l	TM61/PM0
Mercury Dissolved by CVAF #	<0.0001	<0.0001	<0.0001	<0.0002 _{AA}	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	mg/kg	TM61/PM0
Phenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/l	TM26/PM0
Phenol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM26/PM0
Fluoride	0.4	<0.3	0.4	0.4	<0.3	0.4	0.4	<0.3	0.4	0.4	<0.3	mg/l	TM173/PM0
Fluoride	4	<3	4	4	<3	4	4	<3	4	4	<3	mg/kg	TM173/PM0
Sulphate as SO4 #	32.8	35.5	74.7	47.1	32.6	41.2	25.7	7.0	34.2	2.0	<0.5	mg/l	TM38/PM0
Sulphate as SO4 #	328	355	747	471	326	412	257	70	342	20	<5	mg/kg	TM38/PM0
Chloride #	11.0	11.9	<0.3	18.4	12.7	14.8	11.2	1.6	11.3	<0.3	<0.3	mg/l	TM38/PM0
Chloride #	110	119	<3	184	127	148	112	16	113	<3	<3	mg/kg	TM38/PM0
Dissolved Organic Carbon	2	<2	<2	2	2	2	2	<2	3	3	<2	mg/l	TM60/PM0
Dissolved Organic Carbon	<20	<20	<20	<20	20	<20	20	<20	30	30	<20	mg/kg	TM60/PM0
pH	8.30	8.12	8.15	7.77	7.83	8.09	7.99	8.07	8.00	8.26	<0.01	pH units	TM73/PM0
Total Dissolved Solids #	114	146	172	178	131	109	99	56	123	36	<35	mg/l	TM20/PM0
Total Dissolved Solids #	1140	1461	1719	1780	1310	1090	990	560	1230	360	<350	mg/kg	TM20/PM0

Element Materials Technology

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton
EMT Job No: 20/4896

Report : EN12457_2
Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30						
Sample ID	BH03	BH04	BH05	BH06	BH07	BH08	BH09	BH010	BH011	BH012						
Depth	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00						
COC No / misc																
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T						
Sample Date	26/03/2020	26/03/2020	26/03/2020	26/03/2020	26/03/2020	27/03/2020	27/03/2020	27/03/2020	27/03/2020	27/03/2020						
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil						
Batch Number	1	1	1	1	1	1	1	1	1	1	Inert	Stable Non-reactive	Hazardous	LOD LOR	Units	Method No.
Date of Receipt	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020	30/03/2020						
Solid Waste Analysis																
Total Organic Carbon #	0.54	0.57	0.63	0.67	0.71	0.63	0.63	0.68	0.66	0.98	3	5	6	<0.02	%	TM21/PM24
Sum of BTEX	<0.025 ^{SV}	<0.025 ^{SV}	<0.025 ^{SV}	<0.025 ^{SV}	<0.025 ^{SV}	<0.025 ^{SV}	<0.025 ^{SV}	<0.025 ^{SV}	<0.025 ^{SV}	<0.025 ^{SV}	6	-	-	<0.025	mg/kg	TM36/PM12
Sum of 7 PCBs #	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	1	-	-	<0.035	mg/kg	TM17/PM8
Mineral Oil	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	500	-	-	<30	mg/kg	TM5/PM8/PM16
PAH Sum of 6 #	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	-	-	-	<0.22	mg/kg	TM4/PM8
PAH Sum of 17	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	100	-	-	<0.64	mg/kg	TM4/PM8
CEN 10:1 Leachate																
Arsenic #	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.5	2	25	<0.025	mg/kg	TM30/PM17
Barium #	0.19	0.29	0.24	0.24	0.29	0.37	0.33	0.06	0.23	<0.03	20	100	300	<0.03	mg/kg	TM30/PM17
Cadmium #	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.04	1	5	<0.005	mg/kg	TM30/PM17
Chromium #	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	0.5	10	70	<0.015	mg/kg	TM30/PM17
Copper #	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	2	50	100	<0.07	mg/kg	TM30/PM17
Mercury #	<0.0001	<0.0001	<0.0001	<0.0002 ^{SA}	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	0.01	0.2	2	<0.0001	mg/kg	TM61/PM0
Molybdenum #	0.22	0.21	0.21	0.26	0.19	0.22	0.22	0.25	0.28	0.21	0.5	10	30	<0.02	mg/kg	TM30/PM17
Nickel #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.4	10	40	<0.02	mg/kg	TM30/PM17
Lead #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.5	10	50	<0.05	mg/kg	TM30/PM17
Antimony #	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	<0.02	0.06	0.7	5	<0.02	mg/kg	TM30/PM17
Selenium #	0.21	0.21	<0.03	0.27	0.28	0.39	0.34	0.15	0.30	<0.03	0.1	0.5	7	<0.03	mg/kg	TM30/PM17
Zinc #	0.04	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	4	50	200	<0.03	mg/kg	TM30/PM17
Total Dissolved Solids #	1140	1461	1719	1780	1310	1090	990	560	1230	360	4000	60000	100000	<350	mg/kg	TM20/PM0
Dissolved Organic Carbon	<20	<20	<20	<20	20	<20	20	<20	30	30	500	800	1000	<20	mg/kg	TM60/PM0
Mass of raw test portion	0.1035	0.1005	0.1009	0.1009	0.1032	0.0988	0.1024	0.0755	0.1178	0.1088	-	-	-		kg	NONE/PM17
Dry Matter Content Ratio	86.7	89.6	89.4	89.3	87.1	91.2	88.1	118.4	76.5	82.5	-	-	-	<0.1	%	NONE/PM4
Leachant Volume	0.886	0.89	0.889	0.889	0.887	0.891	0.888	0.9	0.872	0.881	-	-	-		l	NONE/PM17
Eluate Volume	0.75	0.6	0.6	0.35	0.2	0.2	0.1	0.3	0.1	0.85	-	-	-		l	NONE/PM17
pH #	8.13	8.24	8.02	8.23	8.25	8.20	8.44	8.51	8.29	8.68	-	-	-	<0.01	pH units	TM73/PM11
Phenol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1	-	-	<0.1	mg/kg	TM26/PM0
Fluoride	4	<3	4	4	<3	4	4	<3	4	4	-	-	-	<3	mg/kg	TM173/PM0
Sulphate as SO4 #	328	355	747	471	326	412	257	70	342	20	1000	20000	50000	<5	mg/kg	TM38/PM0
Chloride #	110	119	<3	184	127	148	112	16	113	<3	800	15000	25000	<3	mg/kg	TM38/PM0

Please see attached notes for all abbreviations and acronyms

Client Name: Ground Investigations Ireland
Reference: 9338-12-19
Location: Sandford Park Milltown
Contact: Barry Sexton

Matrix : Solid

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	EPH Interpretation
20/4896	1	BH03	3.00	1-3	No interpretation possible
20/4896	1	BH04	3.00	4-6	No interpretation possible
20/4896	1	BH05	3.00	7-9	No interpretation possible
20/4896	1	BH06	3.00	10-12	No interpretation possible
20/4896	1	BH07	3.00	13-15	No interpretation possible
20/4896	1	BH08	3.00	16-18	No interpretation possible
20/4896	1	BH09	3.00	19-21	No interpretation possible
20/4896	1	BH010	3.00	22-24	No interpretation possible
20/4896	1	BH011	3.00	25-27	No interpretation possible
20/4896	1	BH012	3.00	28-30	No interpretation possible

Client Name: Ground Investigations Ireland
Reference: 19/12/9338
Location: Sandford Park Milltown
Contact: Barry Sexton

Note:
 Asbestos Screen analysis is carried out in accordance with our documented in-house methods PM042 and TM065 and HSG 248 by Stereo and Polarised Light Microscopy using Dispersion Staining Techniques and is covered by our UKAS accreditation. Detailed Gravimetric Quantification and PCOM Fibre Analysis is carried out in accordance with our documented in-house methods PM042 and TM131 and HSG 248 using Stereo and Polarised Light Microscopy and Phase Contrast Optical Microscopy (PCOM). Samples are retained for not less than 6 months from the date of analysis unless specifically requested.

Opinions, including ACM type and Asbestos level less than 0.1%, lie outside the scope of our UKAS accreditation.

Where the sample is not taken by a Element Materials Technology consultant, Element Materials Technology cannot be responsible for inaccurate or unrepresentative sampling.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Date Of Analysis	Analysis	Result
20/4896	1	BH03	3.00	2	08/04/2020	General Description (Bulk Analysis)	Soil/Stones
					08/04/2020	Asbestos Fibres	NAD
					08/04/2020	Asbestos ACM	NAD
					08/04/2020	Asbestos Type	NAD
					08/04/2020	Asbestos Level Screen	NAD
20/4896	1	BH04	3.00	5	08/04/2020	General Description (Bulk Analysis)	Soil/Stones
					08/04/2020	Asbestos Fibres	NAD
					08/04/2020	Asbestos ACM	NAD
					08/04/2020	Asbestos Type	NAD
					08/04/2020	Asbestos Level Screen	NAD
20/4896	1	BH05	3.00	8	08/04/2020	General Description (Bulk Analysis)	soil/stones
					08/04/2020	Asbestos Fibres	NAD
					08/04/2020	Asbestos ACM	NAD
					08/04/2020	Asbestos Type	NAD
					08/04/2020	Asbestos Level Screen	NAD
20/4896	1	BH06	3.00	11	08/04/2020	General Description (Bulk Analysis)	Soil/Stones
					08/04/2020	Asbestos Fibres	NAD
					08/04/2020	Asbestos ACM	NAD
					08/04/2020	Asbestos Type	NAD
					08/04/2020	Asbestos Level Screen	NAD
20/4896	1	BH07	3.00	14	08/04/2020	General Description (Bulk Analysis)	Soil/Stones
					08/04/2020	Asbestos Fibres	NAD
					08/04/2020	Asbestos ACM	NAD
					08/04/2020	Asbestos Type	NAD
					08/04/2020	Asbestos Level Screen	NAD
20/4896	1	BH08	3.00	17	08/04/2020	General Description (Bulk Analysis)	Soil/Stones
					08/04/2020	Asbestos Fibres	NAD
					08/04/2020	Asbestos ACM	NAD
					08/04/2020	Asbestos Type	NAD
					08/04/2020	Asbestos Level Screen	NAD
20/4896	1	BH09	3.00	20	08/04/2020	General Description (Bulk Analysis)	soil/stones
					08/04/2020	Asbestos Fibres	NAD
					08/04/2020	Asbestos ACM	NAD

Client Name: Ground Investigations Ireland
Reference: 19/12/9338
Location: Sandford Park Milltown
Contact: Barry Sexton

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Date Of Analysis	Analysis	Result
20/4896	1	BH09	3.00	20	08/04/2020	Asbestos Type	NAD
					08/04/2020	Asbestos Level Screen	NAD
20/4896	1	BH010	3.00	23	08/04/2020	General Description (Bulk Analysis)	soil/stones
					08/04/2020	Asbestos Fibres	NAD
					08/04/2020	Asbestos ACM	NAD
					08/04/2020	Asbestos Type	NAD
					08/04/2020	Asbestos Level Screen	NAD
20/4896	1	BH011	3.00	26	08/04/2020	General Description (Bulk Analysis)	soil/stones
					08/04/2020	Asbestos Fibres	NAD
					08/04/2020	Asbestos ACM	NAD
					08/04/2020	Asbestos Type	NAD
					08/04/2020	Asbestos Level Screen	NAD
20/4896	1	BH012	3.00	29	08/04/2020	General Description (Bulk Analysis)	Soil/Stones
					08/04/2020	Asbestos Fibres	NAD
					08/04/2020	Asbestos ACM	NAD
					08/04/2020	Asbestos Type	NAD
					08/04/2020	Asbestos Level Screen	NAD

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 20/4896

SOILS

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCl (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overestimate when other sulphides such as Barite (Barium Sulphate) are present.

WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a UKAS requirement for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.

Please include all sections of this report if it is reproduced

REPORTS FROM THE SOUTH AFRICA LABORATORY

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
>>	Results above calibration range, the result should be considered the minimum value. The actual result could be significantly higher, this result is not accredited.
*	Analysis subcontracted to an Element Materials Technology approved laboratory.
AD	Samples are dried at 35°C ±5°C
CO	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
N	Client Sample
TB	Trip Blank Sample
OC	Outside Calibration Range
AA	x2 Dilution

EMT Job No: 20/4896

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM16	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details			AR	Yes
TM17	Modified US EPA method 8270D v5:2014. Determination of specific Polychlorinated Biphenyl congeners by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM20	Modified BS 1377-3:1990/USEPA 160.1/3 (TDS/TS: 1971) Gravimetric determination of Total Dissolved Solids/Total Solids	PM0	No preparation is required.	Yes		AR	Yes
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil, March 2012 v4.	PM24	Dried and ground solid samples are washed with hydrochloric acid, then rinsed with deionised water to remove the mineral carbon before TOC analysis.	Yes		AD	Yes

EMT Job No: 20/4896

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.			AR	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.			AD	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.	Yes		AD	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP	PM17	Modified method BS EN12457-2:2002 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.	Yes		AR	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GC/FID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE re	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GC/FID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE re	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993 (comparabl	PM0	No preparation is required.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993 (comparabl	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AD	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993 (comparabl	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AR	Yes
TM60	TC/TOC analysis of Waters by High Temperature Combustion followed by NDIR detection. Based on the following modified standard methods: USEPA 9060A (2002), APHA SMEWW 5310B:1999 22nd Edition, ASTM D 7573, and USEPA 415.1.	PM0	No preparation is required.			AR	Yes

EMT Job No: 20/4896

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM61	Determination of Mercury by Cold Vapour Atomic Fluorescence - WATERS: Modified USEPA Method 245.7, Rev 2, Feb 2005. SOILS: Modified USEPA Method 7471B, Rev.2, Feb 2007	PM0	No preparation is required.	Yes		AR	Yes
TM65	Asbestos Bulk Identification method based on HSG 248 First edition (2006)	PM42	Modified SCA Blue Book V.12 draft 2017 and WM3 1st Edition v1.1:2018. Solid samples undergo a thorough visual inspection for asbestos fibres prior to asbestos identification using TM065.	Yes		AR	
TM73	Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377-3:1990. Determination of pH by Metrohm automated probe analyser.	PM0	No preparation is required.			AR	Yes
TM73	Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377-3:1990. Determination of pH by Metrohm automated probe analyser.	PM11	Extraction of as received solid samples using one part solid to 2.5 parts deionised water.	Yes		AR	No
TM173	Analysis of fluoride by ISE (Ion Selective Electrode) using modified ISE method 9214 - 340.2 (EPA 1998)	PM0	No preparation is required.			AR	Yes
NONE	No Method Code	NONE	No Method Code			AD	Yes
NONE	No Method Code	PM17	Modified method BS EN12457-2:2002 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.				
NONE	No Method Code	PM17	Modified method BS EN12457-2:2002 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.			AR	
NONE	No Method Code	PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.			AR	

APPENDIX 7 – HazWasteOnLine™ Report



Waste Classification Report



VHEHQ-DQNE7-HSUWU

Job name

Sandford Park Milltown[2]

Description/Comments

Project

9338-12-19

Site

Sandford Park Milltown

Related Documents

#	Name	Description
1	EMT-20-4896-Batch-1-File-1.HWOL	.hwol file used to create the Job

Waste Stream Template

Example waste stream template for contaminated soils

Classified by

Name: Nicholas Morgan	Company: Ground Investigations Ireland Catherinestown House, Hazelhatch Road, Newcastle Co. Dublin	HazWasteOnline™ Training Record:
Date: 14 Apr 2020 10:29 GMT		Course
Telephone: (0)1 601 5175		Hazardous Waste Classification
		Advanced Hazardous Waste Classification
		Date
		-
		-

Report

Created by: Nicholas Morgan
Created date: 14 Apr 2020 10:29 GMT

Job summary

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
1	BH03-26/03/2020-3.00m		Non Hazardous		3
2	BH04-26/03/2020-3.00m		Non Hazardous		6
3	BH05-26/03/2020-3.00m		Non Hazardous		9
4	BH06-26/03/2020-3.00m		Non Hazardous		12
5	BH07-26/03/2020-3.00m		Non Hazardous		15
6	BH08-27/03/2020-3.00m		Non Hazardous		18
7	BH09-27/03/2020-3.00m		Non Hazardous		21
8	BH010-27/03/2020-3.00m		Non Hazardous		24
9	BH011-27/03/2020-3.00m		Non Hazardous		27
10	BH012-27/03/2020-3.00m		Non Hazardous		30

Appendices	Page
Appendix A: Classifier defined and non CLP determinands	33
Appendix B: Rationale for selection of metal species	34
Appendix C: Version	35

Classification of sample: BH03-26/03/2020-3.00m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: BH03-26/03/2020-3.00m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 9.8% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 9.8% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	antimony { antimony trioxide }				1	mg/kg	1.197	1.08	mg/kg	0.000108 %	✓	
	051-005-00-X	215-175-0	1309-64-4									
2	arsenic { arsenic trioxide }				6.2	mg/kg	1.32	7.384	mg/kg	0.000738 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium oxide }				1.2	mg/kg	1.142	1.236	mg/kg	0.000124 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
4	chromium in chromium(III) compounds { chromium(III) oxide }				40	mg/kg	1.462	52.733	mg/kg	0.00527 %	✓	
		215-160-9	1308-38-9									
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
6	copper { dicopper oxide; copper (I) oxide }				19	mg/kg	1.126	19.295	mg/kg	0.00193 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	14	mg/kg	1.56	19.697	mg/kg	0.00126 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.1	mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	molybdenum { molybdenum(VI) oxide }				3.5	mg/kg	1.5	4.736	mg/kg	0.000474 %	✓	
	042-001-00-9	215-204-7	1313-27-5									
10	nickel { nickel chromate }				23.7	mg/kg	2.976	63.625	mg/kg	0.00636 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2	mg/kg	2.554	4.607	mg/kg	0.000461 %	✓	
	034-002-00-8											
12	zinc { zinc chromate }				54	mg/kg	2.774	135.123	mg/kg	0.0135 %	✓	
	024-007-00-3											
13	TPH (C6 to C40) petroleum group		TPH		<52	mg/kg		<52	mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.13 pH		8.13 pH	8.13 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				48 mg/kg	1.117	48.34 mg/kg	0.00483 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0405 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH04-26/03/2020-3.00m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: BH04-26/03/2020-3.00m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 11.2% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

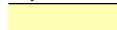



Moisture content: 11.2% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.126 mg/kg	0.000213 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				8.8 mg/kg	1.32	10.318 mg/kg	0.00103 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.8 mg/kg	1.142	1.826 mg/kg	0.000183 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				47.4 mg/kg	1.462	61.519 mg/kg	0.00615 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				27 mg/kg	1.126	26.994 mg/kg	0.0027 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	48 mg/kg	1.56	66.486 mg/kg	0.00426 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				3.7 mg/kg	1.5	4.929 mg/kg	0.000493 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				33.7 mg/kg	2.976	89.067 mg/kg	0.00891 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				3 mg/kg	2.554	6.803 mg/kg	0.00068 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				73 mg/kg	2.774	179.831 mg/kg	0.018 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.24 pH		8.24 pH	8.24 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				59 mg/kg	1.117	58.496 mg/kg	0.00585 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0539 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH05-26/03/2020-3.00m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: BH05-26/03/2020-3.00m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 9.4% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 9.4% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.169 mg/kg	0.000217 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				6.8 mg/kg	1.32	8.134 mg/kg	0.000813 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.6 mg/kg	1.142	1.656 mg/kg	0.000166 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				41.8 mg/kg	1.462	55.35 mg/kg	0.00554 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				26 mg/kg	1.126	26.521 mg/kg	0.00265 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	15 mg/kg	1.56	21.198 mg/kg	0.00136 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				3.6 mg/kg	1.5	4.893 mg/kg	0.000489 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				33.5 mg/kg	2.976	90.333 mg/kg	0.00903 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2 mg/kg	2.554	4.627 mg/kg	0.000463 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				71 mg/kg	2.774	178.45 mg/kg	0.0178 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							




#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.02 pH		8.02 pH	8.02 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				56 mg/kg	1.117	56.647 mg/kg	0.00566 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0497 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH06-26/03/2020-3.00m

 **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: BH06-26/03/2020-3.00m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 8.8% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 8.8% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.184 mg/kg	0.000218 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				10.3 mg/kg	1.32	12.403 mg/kg	0.00124 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2 mg/kg	1.142	2.084 mg/kg	0.000208 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				44.4 mg/kg	1.462	59.182 mg/kg	0.00592 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				33 mg/kg	1.126	33.885 mg/kg	0.00339 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	18 mg/kg	1.56	25.606 mg/kg	0.00164 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				4.1 mg/kg	1.5	5.61 mg/kg	0.000561 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				40.2 mg/kg	2.976	109.117 mg/kg	0.0109 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				3 mg/kg	2.554	6.987 mg/kg	0.000699 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				89 mg/kg	2.774	225.172 mg/kg	0.0225 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.23 pH		8.23 pH	8.23 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				84 mg/kg	1.117	85.533 mg/kg	0.00855 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0613 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH07-26/03/2020-3.00m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: BH07-26/03/2020-3.00m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 10.3% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 10.3% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used	
	CLP index number	EC Number	CAS Number								
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4	1	mg/kg	1.197	1.074 mg/kg	0.000107 %	✓	
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	5.2	mg/kg	1.32	6.159 mg/kg	0.000616 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	1	mg/kg	1.142	1.025 mg/kg	0.000102 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide }		215-160-9	1308-38-9	28.8	mg/kg	1.462	37.757 mg/kg	0.00378 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<0.3	mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	18	mg/kg	1.126	18.179 mg/kg	0.00182 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	mg/kg	1.56	16.79 mg/kg	0.00108 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.1	mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
9	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5	2.5	mg/kg	1.5	3.364 mg/kg	0.000336 %	✓	
10	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7	22	mg/kg	2.976	58.734 mg/kg	0.00587 %	✓	
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8			2	mg/kg	2.554	4.581 mg/kg	0.000458 %	✓	
12	zinc { zinc chromate }	024-007-00-3			50	mg/kg	2.774	124.42 mg/kg	0.0124 %	✓	
13	TPH (C6 to C40) petroleum group			TPH	<52	mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005	mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD




#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.25 pH		8.25 pH	8.25 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				39 mg/kg	1.117	39.059 mg/kg	0.00391 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.036 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH08-27/03/2020-3.00m

 **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: BH08-27/03/2020-3.00m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 7.8% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 7.8% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.207 mg/kg	0.000221 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				9.5 mg/kg	1.32	11.565 mg/kg	0.00116 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2 mg/kg	1.142	2.106 mg/kg	0.000211 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				43.9 mg/kg	1.462	59.158 mg/kg	0.00592 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				32 mg/kg	1.126	33.218 mg/kg	0.00332 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	20 mg/kg	1.56	28.763 mg/kg	0.00184 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				3.7 mg/kg	1.5	5.118 mg/kg	0.000512 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				38.7 mg/kg	2.976	106.197 mg/kg	0.0106 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2 mg/kg	2.554	4.709 mg/kg	0.000471 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				84 mg/kg	2.774	214.852 mg/kg	0.0215 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.2 pH		8.2 pH	8.2 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				90 mg/kg	1.117	92.648 mg/kg	0.00926 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0605 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH09-27/03/2020-3.00m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: BH09-27/03/2020-3.00m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 11.2% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 11.2% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	antimony { antimony trioxide }				2	mg/kg	1.197	2.126	mg/kg	0.000213 %	✓	
	051-005-00-X	215-175-0	1309-64-4									
2	arsenic { arsenic trioxide }				10.6	mg/kg	1.32	12.428	mg/kg	0.00124 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium oxide }				2.3	mg/kg	1.142	2.333	mg/kg	0.000233 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
4	chromium in chromium(III) compounds { chromium(III) oxide }				43.2	mg/kg	1.462	56.068	mg/kg	0.00561 %	✓	
		215-160-9	1308-38-9									
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
6	copper { dicopper oxide; copper (I) oxide }				28	mg/kg	1.126	27.994	mg/kg	0.0028 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	17	mg/kg	1.56	23.547	mg/kg	0.00151 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.1	mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	molybdenum { molybdenum(VI) oxide }				5	mg/kg	1.5	6.661	mg/kg	0.000666 %	✓	
	042-001-00-9	215-204-7	1313-27-5									
10	nickel { nickel chromate }				35.6	mg/kg	2.976	94.088	mg/kg	0.00941 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				3	mg/kg	2.554	6.803	mg/kg	0.00068 %	✓	
	034-002-00-8											
12	zinc { zinc chromate }				89	mg/kg	2.774	219.246	mg/kg	0.0219 %	✓	
	024-007-00-3											
13	TPH (C6 to C40) petroleum group		TPH		<52	mg/kg		<52	mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									




#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.44 pH		8.44 pH	8.44 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				76 mg/kg	1.117	75.351 mg/kg	0.00754 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0573 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH010-27/03/2020-3.00m

 **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: BH010-27/03/2020-3.00m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 10.2% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 10.2% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number								
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.15	mg/kg	0.000215 %	✓	
	051-005-00-X	215-175-0	1309-64-4								
2	arsenic { arsenic trioxide }				10 mg/kg	1.32	11.857	mg/kg	0.00119 %	✓	
	033-003-00-0	215-481-4	1327-53-3								
3	cadmium { cadmium oxide }				1.8 mg/kg	1.142	1.846	mg/kg	0.000185 %	✓	
	048-002-00-0	215-146-2	1306-19-0								
4	chromium in chromium(III) compounds { chromium(III) oxide }				42.5 mg/kg	1.462	55.78	mg/kg	0.00558 %	✓	
		215-160-9	1308-38-9								
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0								
6	copper { dicopper oxide; copper (I) oxide }				33 mg/kg	1.126	33.365	mg/kg	0.00334 %	✓	
	029-002-00-X	215-270-7	1317-39-1								
7	lead { lead chromate }			1	18 mg/kg	1.56	25.213	mg/kg	0.00162 %	✓	
	082-004-00-2	231-846-0	7758-97-6								
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7								
9	molybdenum { molybdenum(VI) oxide }				4 mg/kg	1.5	5.389	mg/kg	0.000539 %	✓	
	042-001-00-9	215-204-7	1313-27-5								
10	nickel { nickel chromate }				39 mg/kg	2.976	104.235	mg/kg	0.0104 %	✓	
	028-035-00-7	238-766-5	14721-18-7								
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				4 mg/kg	2.554	9.173	mg/kg	0.000917 %	✓	
	034-002-00-8										
12	zinc { zinc chromate }				83 mg/kg	2.774	206.768	mg/kg	0.0207 %	✓	
	024-007-00-3										
13	TPH (C6 to C40) petroleum group				<52 mg/kg		<52	mg/kg	<0.0052 %		<LOD
			TPH								
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4								



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.51 pH		8.51 pH	8.51 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				75 mg/kg	1.117	75.197 mg/kg	0.00752 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0576 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH011-27/03/2020-3.00m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: BH011-27/03/2020-3.00m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 10.2% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 10.2% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4	2 mg/kg	1.197	2.15 mg/kg	0.000215 %	✓	
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	10.6 mg/kg	1.32	12.568 mg/kg	0.00126 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	2.4 mg/kg	1.142	2.462 mg/kg	0.000246 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide }		215-160-9	1308-38-9	52.4 mg/kg	1.462	68.774 mg/kg	0.00688 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	35 mg/kg	1.126	35.387 mg/kg	0.00354 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	19 mg/kg	1.56	26.614 mg/kg	0.00171 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
9	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5	4.3 mg/kg	1.5	5.793 mg/kg	0.000579 %	✓	
10	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7	38.6 mg/kg	2.976	103.166 mg/kg	0.0103 %	✓	
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8			3 mg/kg	2.554	6.879 mg/kg	0.000688 %	✓	
12	zinc { zinc chromate }	024-007-00-3			130 mg/kg	2.774	323.854 mg/kg	0.0324 %	✓	
13	TPH (C6 to C40) petroleum group			TPH	<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD




#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.29 pH		8.29 pH	8.29 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				76 mg/kg	1.117	76.199 mg/kg	0.00762 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0709 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: BH012-27/03/2020-3.00m

 **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: BH012-27/03/2020-3.00m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 10.8% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 10.8% Wet Weight Moisture Correction applied (MC)





#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.136 mg/kg	0.000214 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				10.2 mg/kg	1.32	12.013 mg/kg	0.0012 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.8 mg/kg	1.142	1.834 mg/kg	0.000183 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				39.3 mg/kg	1.462	51.236 mg/kg	0.00512 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				32 mg/kg	1.126	32.137 mg/kg	0.00321 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	17 mg/kg	1.56	23.653 mg/kg	0.00152 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				3.8 mg/kg	1.5	5.085 mg/kg	0.000509 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				36.3 mg/kg	2.976	96.37 mg/kg	0.00964 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				6 mg/kg	2.554	13.667 mg/kg	0.00137 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				67 mg/kg	2.774	165.794 mg/kg	0.0166 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.68 pH		8.68 pH	8.68 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				78 mg/kg	1.117	77.682 mg/kg	0.00777 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0528 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Appendix A: Classifier defined and non CLP determinands

• **chromium(III) oxide** (EC Number: 215-160-9, CAS Number: 1308-38-9)

Conversion factor: 1.462

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Repr. 1B H360FD , Skin Sens. 1 H317 , Resp. Sens. 1 H334 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Acute Tox. 4 H302 , Acute Tox. 4 H332

• **TPH (C6 to C40) petroleum group** (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: Aquatic Chronic 2 H411 , Repr. 2 H361d , Carc. 1B H350 , Muta. 1B H340 , STOT RE 2 H373 , Asp. Tox. 1 H304 , Flam. Liq. 3 H226

• **ethylbenzene** (EC Number: 202-849-4, CAS Number: 100-41-4)

CLP index number: 601-023-00-4

Description/Comments:

Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)

Additional Hazard Statement(s): Carc. 2 H351

Reason for additional Hazards Statement(s):

03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2B (77) 2000

• **pH** (CAS Number: PH)

Description/Comments: Appendix C4

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: None.

• **acenaphthylene** (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Acute Tox. 1 H310 , Acute Tox. 1 H330 , Acute Tox. 4 H302

• **acenaphthene** (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Aquatic Chronic 2 H411 , Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319

• **fluorene** (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400

• **phenanthrene** (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Skin Irrit. 2 H315 , Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Skin Sens. 1 H317 , Carc. 2 H351 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Acute Tox. 4 H302

• **anthracene** (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Skin Sens. 1 H317 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319

▪ **fluoranthene** (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 21 Aug 2015
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Acute Tox. 4 H302

▪ **pyrene** (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 21 Aug 2015
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Skin Irrit. 2 H315

▪ **indeno[123-cd]pyrene** (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2 H351

▪ **benzo[ghi]perylene** (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400

▪ **polychlorobiphenyls; PCB** (EC Number: 215-648-1, CAS Number: 1336-36-3)

CLP index number: 602-039-00-4
Description/Comments: Worst Case: IARC considers PCB Group 1; Carcinogenic to humans; POP specific threshold from ATP1 (Regulation 756/2010/EU) to POPs Regulation (Regulation 850/2004/EC). Where applicable, the calculation method laid down in European standards EN 12766-1 and EN 12766-2 shall be applied.
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Hazard Statement(s): Carc. 1A H350
Reason for additional Hazards Statement(s):
29 Sep 2015 - Carc. 1A H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

▪ **barium oxide** (EC Number: 215-127-9, CAS Number: 1304-28-5)

Conversion factor: 1.117
Description/Comments: Data from ECHA's C&L Inventory Database, Sigma Aldrich SDS dated 6/2/20
Data source: <https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/88825>
Data source date: 02 Apr 2020
Hazard Statements: Acute Tox. 3 H301 , Skin Corr. 1B H314 , Eye Dam. 1 H318 , Acute Tox. 1 H332

▪ **coronene** (EC Number: 205-881-7, CAS Number: 191-07-1)

Description/Comments: Data from C&L Inventory Database; no entries in Registered Substances or Pesticides Properties databases; SDS: Sigma Aldrich, 1907/2006 compliant, dated 2012 - no entries; IARC – Group 3, not carcinogenic.
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=17010&HarmOnly=no?fc=true&lang=en>
Data source date: 16 Jun 2014
Hazard Statements: STOT SE 2 H371

Appendix B: Rationale for selection of metal species

antimony {antimony trioxide}

Worst case CLP species based on hazard statements/molecular weight and low solubility. Industrial sources include: flame retardants in electrical apparatus, textiles and coatings (edit as required)

arsenic {arsenic trioxide}

Reasonable case CLP species based on hazard statements/molecular weight and most common (stable) oxide of arsenic. Industrial sources include: smelting; main precursor to other arsenic compounds (edit as required)

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history (edit as required)

chromium in chromium(III) compounds {chromium(III) oxide}

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass (edit as required)

chromium in chromium(VI) compounds {chromium(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments (edit as required)

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

molybdenum {molybdenum(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

nickel {nickel chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

selenium {selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case. Pigment cadmium sulphoselenide not likely to be present in this soil. No evidence for the other CLP entries: sodium selenite, nickel II selenite and nickel selenide, to be present in this soil. (edit as required)

zinc {zinc chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

barium {barium oxide}

Cr VI not detected.

Appendix C: Version

HazWasteOnline Classification Engine: **WM3 1st Edition v1.1, May 2018**
HazWasteOnline Classification Engine Version: 2020.88.4220.8373 (28 Mar 2020)
HazWasteOnline Database: 2020.88.4220.8373 (28 Mar 2020)

This classification utilises the following guidance and legislation:

- WM3 v1.1 - Waste Classification** - 1st Edition v1.1 - May 2018
- CLP Regulation** - Regulation 1272/2008/EC of 16 December 2008
- 1st ATP** - Regulation 790/2009/EC of 10 August 2009
- 2nd ATP** - Regulation 286/2011/EC of 10 March 2011
- 3rd ATP** - Regulation 618/2012/EU of 10 July 2012
- 4th ATP** - Regulation 487/2013/EU of 8 May 2013
- Correction to 1st ATP** - Regulation 758/2013/EU of 7 August 2013
- 5th ATP** - Regulation 944/2013/EU of 2 October 2013
- 6th ATP** - Regulation 605/2014/EU of 5 June 2014
- WFD Annex III replacement** - Regulation 1357/2014/EU of 18 December 2014
- Revised List of Wastes 2014** - Decision 2014/955/EU of 18 December 2014
- 7th ATP** - Regulation 2015/1221/EU of 24 July 2015
- 8th ATP** - Regulation (EU) 2016/918 of 19 May 2016
- 9th ATP** - Regulation (EU) 2016/1179 of 19 July 2016
- 10th ATP** - Regulation (EU) 2017/776 of 4 May 2017
- HP14 amendment** - Regulation (EU) 2017/997 of 8 June 2017
- 13th ATP** - Regulation (EU) 2018/1480 of 4 October 2018
- POPs Regulation 2004** - Regulation 850/2004/EC of 29 April 2004
- 1st ATP to POPs Regulation** - Regulation 756/2010/EU of 24 August 2010
- 2nd ATP to POPs Regulation** - Regulation 757/2010/EU of 24 August 2010

Waste Classification Report



2GS38-DZDXE-QSB9F

Job name

Sandford Park Milltown

Description/Comments

Project

9338-12-19

Site

Sandford Park Milltown

Related Documents

#	Name	Description
1	EMT-20-1186-Batch-1-File-1.hwol	.hwol file used to create the Job

Waste Stream Template

Example waste stream template for contaminated soils

Classified by

Name:	Company:	HazWasteOnline™ Training Record:	
Emer O'Connor	Ground Investigations Ireland	Course	Date
Date: 07 Feb 2020 08:59 GMT	Catherinstown House, Hazelhatch Road, Newcastle Co. Dublin	Hazardous Waste Classification	-
Telephone: 35319103589		Advanced Hazardous Waste Classification	-

Report

Created by: Emer O'Connor
Created date: 07 Feb 2020 08:59 GMT

Job summary

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
1	CBR01-21/01/2020-0.70m		Non Hazardous		3
2	CBR02-21/01/2020-0.70m		Non Hazardous		6
3	CBR03-20/01/2020-0.70m		Non Hazardous		9
4	CBR04-20/01/2020-0.70m		Non Hazardous		12
5	CBR06-21/01/2020-0.70m		Non Hazardous		15
6	CBR07-21/01/2020-0.70m		Non Hazardous		18
7	CBR08-21/01/2020-0.70m		Non Hazardous		21
8	CBR09-21/01/2020-0.70m		Non Hazardous		24
9	CBR10-21/01/2020-0.70m		Non Hazardous		27

Appendices	Page
Appendix A: Classifier defined and non CLP determinands	30
Appendix B: Rationale for selection of metal species	31
Appendix C: Version	32

Classification of sample: CBR01-21/01/2020-0.70m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: CBR01-21/01/2020-0.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 18.5% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 18.5% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	antimony { antimony trioxide }				3	mg/kg	1.197	2.927	mg/kg	0.000293 %	✓	
	051-005-00-X	215-175-0	1309-64-4									
2	arsenic { arsenic trioxide }				14.6	mg/kg	1.32	15.711	mg/kg	0.00157 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium oxide }				2.3	mg/kg	1.142	2.141	mg/kg	0.000214 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
4	chromium in chromium(III) compounds { chromium(III) oxide }				74.6	mg/kg	1.462	88.861	mg/kg	0.00889 %	✓	
		215-160-9	1308-38-9									
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
6	copper { dicopper oxide; copper (I) oxide }				38	mg/kg	1.126	34.869	mg/kg	0.00349 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	30	mg/kg	1.56	38.137	mg/kg	0.00245 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.1	mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	molybdenum { molybdenum(VI) oxide }				6.7	mg/kg	1.5	8.192	mg/kg	0.000819 %	✓	
	042-001-00-9	215-204-7	1313-27-5									
10	nickel { nickel chromate }				50.3	mg/kg	2.976	122.01	mg/kg	0.0122 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				3	mg/kg	2.554	6.244	mg/kg	0.000624 %	✓	
	034-002-00-8											
12	zinc { zinc chromate }				157	mg/kg	2.774	354.966	mg/kg	0.0355 %	✓	
	024-007-00-3											
13	TPH (C6 to C40) petroleum group		TPH		<52	mg/kg		<52	mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									




#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.43 pH		8.43 pH	8.43 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				104 mg/kg	1.117	94.635 mg/kg	0.00946 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0809 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: CBR02-21/01/2020-0.70m

 **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: CBR02-21/01/2020-0.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 18.6% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 18.6% Wet Weight Moisture Correction applied (MC)





#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				3 mg/kg	1.197	2.923 mg/kg	0.000292 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				14 mg/kg	1.32	15.046 mg/kg	0.0015 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				3.5 mg/kg	1.142	3.254 mg/kg	0.000325 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				72.7 mg/kg	1.462	86.492 mg/kg	0.00865 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				37 mg/kg	1.126	33.91 mg/kg	0.00339 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	31 mg/kg	1.56	39.36 mg/kg	0.00252 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				6.3 mg/kg	1.5	7.693 mg/kg	0.000769 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				52.6 mg/kg	2.976	127.433 mg/kg	0.0127 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				3 mg/kg	2.554	6.236 mg/kg	0.000624 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				139 mg/kg	2.774	313.884 mg/kg	0.0314 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.33 pH		8.33 pH	8.33 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				184 mg/kg	1.117	167.226 mg/kg	0.0167 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0844 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: CBR03-20/01/2020-0.70m

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name: CBR03-20/01/2020-0.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 17.4% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 17.4% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4	3 mg/kg	1.197	2.966 mg/kg	0.000297 %	✓	
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	18.8 mg/kg	1.32	20.503 mg/kg	0.00205 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	4.2 mg/kg	1.142	3.963 mg/kg	0.000396 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide }		215-160-9	1308-38-9	71.7 mg/kg	1.462	86.559 mg/kg	0.00866 %	✓	
5	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	57 mg/kg	1.126	53.009 mg/kg	0.0053 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	34 mg/kg	1.56	43.806 mg/kg	0.00281 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
9	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5	5.5 mg/kg	1.5	6.815 mg/kg	0.000682 %	✓	
10	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7	88.3 mg/kg	2.976	217.076 mg/kg	0.0217 %	✓	
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8			2 mg/kg	2.554	4.219 mg/kg	0.000422 %	✓	
12	zinc { zinc chromate }	024-007-00-3			160 mg/kg	2.774	366.631 mg/kg	0.0367 %	✓	
13	TPH (C6 to C40) petroleum group			TPH	<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD




#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.38 pH		8.38 pH	8.38 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				144 mg/kg	1.117	132.802 mg/kg	0.0133 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0977 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: CBR04-20/01/2020-0.70m

 **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: CBR04-20/01/2020-0.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 17.4% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 17.4% Wet Weight Moisture Correction applied (MC)





#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	1.978 mg/kg	0.000198 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				11.3 mg/kg	1.32	12.324 mg/kg	0.00123 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2.7 mg/kg	1.142	2.548 mg/kg	0.000255 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				59.4 mg/kg	1.462	71.71 mg/kg	0.00717 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				26 mg/kg	1.126	24.18 mg/kg	0.00242 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	24 mg/kg	1.56	30.922 mg/kg	0.00198 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				4.8 mg/kg	1.5	5.948 mg/kg	0.000595 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				39.4 mg/kg	2.976	96.861 mg/kg	0.00969 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2 mg/kg	2.554	4.219 mg/kg	0.000422 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				102 mg/kg	2.774	233.727 mg/kg	0.0234 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.5 pH		8.5 pH	8.5 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				135 mg/kg	1.117	124.502 mg/kg	0.0125 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0652 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: CBR06-21/01/2020-0.70m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: CBR06-21/01/2020-0.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 16.4% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 16.4% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				3 mg/kg	1.197	3.002 mg/kg	0.0003 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				15.6 mg/kg	1.32	17.219 mg/kg	0.00172 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2.6 mg/kg	1.142	2.483 mg/kg	0.000248 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				51.7 mg/kg	1.462	63.17 mg/kg	0.00632 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				45 mg/kg	1.126	42.356 mg/kg	0.00424 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	24 mg/kg	1.56	31.296 mg/kg	0.00201 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				5 mg/kg	1.5	6.271 mg/kg	0.000627 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				61.2 mg/kg	2.976	152.275 mg/kg	0.0152 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2 mg/kg	2.554	4.27 mg/kg	0.000427 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				131 mg/kg	2.774	303.813 mg/kg	0.0304 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							




#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.38 pH		8.38 pH	8.38 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				123 mg/kg	1.117	114.808 mg/kg	0.0115 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0784 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: CBR07-21/01/2020-0.70m

 **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: CBR07-21/01/2020-0.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 17.8% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 17.8% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				3 mg/kg	1.197	2.952 mg/kg	0.000295 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				17.9 mg/kg	1.32	19.427 mg/kg	0.00194 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				5.2 mg/kg	1.142	4.883 mg/kg	0.000488 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				70.6 mg/kg	1.462	84.819 mg/kg	0.00848 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				32 mg/kg	1.126	29.615 mg/kg	0.00296 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	24 mg/kg	1.56	30.772 mg/kg	0.00197 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				7.5 mg/kg	1.5	9.249 mg/kg	0.000925 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				73.2 mg/kg	2.976	179.083 mg/kg	0.0179 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				4 mg/kg	2.554	8.396 mg/kg	0.00084 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				108 mg/kg	2.774	246.278 mg/kg	0.0246 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.28 pH		8.28 pH	8.28 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				331 mg/kg	1.117	303.781 mg/kg	0.0304 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0963 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: CBR08-21/01/2020-0.70m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: CBR08-21/01/2020-0.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 18.2% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 18.2% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	antimony { antimony trioxide }				3	mg/kg	1.197	2.938	mg/kg	0.000294 %	✓	
	051-005-00-X	215-175-0	1309-64-4									
2	arsenic { arsenic trioxide }				13.4	mg/kg	1.32	14.472	mg/kg	0.00145 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium oxide }				2.8	mg/kg	1.142	2.616	mg/kg	0.000262 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
4	chromium in chromium(III) compounds { chromium(III) oxide }				76.3	mg/kg	1.462	91.221	mg/kg	0.00912 %	✓	
		215-160-9	1308-38-9									
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
6	copper { dicopper oxide; copper (I) oxide }				36	mg/kg	1.126	33.155	mg/kg	0.00332 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	34	mg/kg	1.56	43.382	mg/kg	0.00278 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.1	mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	molybdenum { molybdenum(VI) oxide }				6.4	mg/kg	1.5	7.854	mg/kg	0.000785 %	✓	
	042-001-00-9	215-204-7	1313-27-5									
10	nickel { nickel chromate }				54.6	mg/kg	2.976	132.928	mg/kg	0.0133 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
12	zinc { zinc chromate }				133	mg/kg	2.774	301.81	mg/kg	0.0302 %	✓	
	024-007-00-3											
13	TPH (C6 to C40) petroleum group		TPH		<52	mg/kg		<52	mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									




#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.49 pH		8.49 pH	8.49 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				126 mg/kg	1.117	115.076 mg/kg	0.0115 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0787 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: CBR09-21/01/2020-0.70m

 **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: CBR09-21/01/2020-0.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 17.2% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 17.2% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				3 mg/kg	1.197	2.974 mg/kg	0.000297 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				15.2 mg/kg	1.32	16.617 mg/kg	0.00166 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				3.9 mg/kg	1.142	3.689 mg/kg	0.000369 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				79.6 mg/kg	1.462	96.329 mg/kg	0.00963 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				39 mg/kg	1.126	36.357 mg/kg	0.00364 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	41 mg/kg	1.56	52.953 mg/kg	0.00339 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				7.5 mg/kg	1.5	9.316 mg/kg	0.000932 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				57.5 mg/kg	2.976	141.7 mg/kg	0.0142 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				3 mg/kg	2.554	6.343 mg/kg	0.000634 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				130 mg/kg	2.774	298.609 mg/kg	0.0299 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.51 pH		8.51 pH	8.51 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				191 mg/kg	1.117	176.573 mg/kg	0.0177 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0877 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: CBR10-21/01/2020-0.70m

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name: CBR10-21/01/2020-0.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 19.4% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 19.4% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	antimony { antimony trioxide }				3	mg/kg	1.197	2.895	mg/kg	0.000289 %	✓	
	051-005-00-X	215-175-0	1309-64-4									
2	arsenic { arsenic trioxide }				17.4	mg/kg	1.32	18.517	mg/kg	0.00185 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium oxide }				5.1	mg/kg	1.142	4.696	mg/kg	0.00047 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
4	chromium in chromium(III) compounds { chromium(III) oxide }				70.7	mg/kg	1.462	83.286	mg/kg	0.00833 %	✓	
		215-160-9	1308-38-9									
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
6	copper { dicopper oxide; copper (I) oxide }				32	mg/kg	1.126	29.039	mg/kg	0.0029 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	35	mg/kg	1.56	44.002	mg/kg	0.00282 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.1	mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	molybdenum { molybdenum(VI) oxide }				7.3	mg/kg	1.5	8.827	mg/kg	0.000883 %	✓	
	042-001-00-9	215-204-7	1313-27-5									
10	nickel { nickel chromate }				69.7	mg/kg	2.976	167.201	mg/kg	0.0167 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				4	mg/kg	2.554	8.233	mg/kg	0.000823 %	✓	
	034-002-00-8											
12	zinc { zinc chromate }				158	mg/kg	2.774	353.282	mg/kg	0.0353 %	✓	
	024-007-00-3											
13	TPH (C6 to C40) petroleum group				<52	mg/kg		<52	mg/kg	<0.0052 %		<LOD
			TPH									
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.39 pH		8.39 pH	8.39 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				321 mg/kg	1.117	288.869 mg/kg	0.0289 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.105 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Appendix A: Classifier defined and non CLP determinands

■ **chromium(III) oxide** (EC Number: 215-160-9, CAS Number: 1308-38-9)

Conversion factor: 1.462

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Repr. 1B H360FD , Skin Sens. 1 H317 , Resp. Sens. 1 H334 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Acute Tox. 4 H302 , Acute Tox. 4 H332

■ **TPH (C6 to C40) petroleum group** (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: Aquatic Chronic 2 H411 , Repr. 2 H361d , Carc. 1B H350 , Muta. 1B H340 , STOT RE 2 H373 , Asp. Tox. 1 H304 , Flam. Liq. 3 H226

■ **ethylbenzene** (EC Number: 202-849-4, CAS Number: 100-41-4)

CLP index number: 601-023-00-4

Description/Comments:

Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)

Additional Hazard Statement(s): Carc. 2 H351

Reason for additional Hazards Statement(s)/Risk Phrase(s):

03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2B (77) 2000

■ **pH** (CAS Number: PH)

Description/Comments: Appendix C4

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: None.

■ **acenaphthylene** (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Acute Tox. 1 H310 , Acute Tox. 1 H330 , Acute Tox. 4 H302

■ **acenaphthene** (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Aquatic Chronic 2 H411 , Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319

■ **fluorene** (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400

■ **phenanthrene** (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Skin Irrit. 2 H315 , Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Skin Sens. 1 H317 , Carc. 2 H351 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Acute Tox. 4 H302

■ **anthracene** (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Skin Sens. 1 H317 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319

• **fluoranthene** (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 21 Aug 2015
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Acute Tox. 4 H302

• **pyrene** (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 21 Aug 2015
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Skin Irrit. 2 H315

• **indeno[123-cd]pyrene** (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2 H351

• **benzo[ghi]perylene** (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400

• **polychlorobiphenyls; PCB** (EC Number: 215-648-1, CAS Number: 1336-36-3)

CLP index number: 602-039-00-4
Description/Comments: Worst Case: IARC considers PCB Group 1; Carcinogenic to humans; POP specific threshold from ATP1 (Regulation 756/2010/EU) to POPs Regulation (Regulation 850/2004/EC). Where applicable, the calculation method laid down in European standards EN 12766-1 and EN 12766-2 shall be applied.
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Hazard Statement(s): Carc. 1A H350
Reason for additional Hazards Statement(s)/Risk Phrase(s):
29 Sep 2015 - Carc. 1A H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

• **barium oxide** (EC Number: 215-127-9, CAS Number: 1304-28-5)

Conversion factor: 1.117
Description/Comments: Data from C&L Inventory Database; No entries in Registered Substances Database, IARC or Pesticide Properties Database
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=88825&HarmOnly=no?fc=true&lang=en>
Data source date: 02 Jun 2014
Hazard Statements: Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Skin Corr. 1A H314 , Acute Tox. 3 H301 , Acute Tox. 4 H302 , Acute Tox. 4 H332

• **coronene** (EC Number: 205-881-7, CAS Number: 191-07-1)

Description/Comments: Data from C&L Inventory Database; no entries in Registered Substances or Pesticides Properties databases;
SDS: Sigma Aldrich, 1907/2006 compliant, dated 2012 - no entries; IARC – Group 3, not carcinogenic.
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=17010&HarmOnly=no?fc=true&lang=en>
Data source date: 16 Jun 2014
Hazard Statements: STOT SE 2 H371

Appendix B: Rationale for selection of metal species

antimony {antimony trioxide}

Worst case CLP species based on hazard statements/molecular weight and low solubility. Industrial sources include: flame retardants in electrical apparatus, textiles and coatings (edit as required)

arsenic {arsenic trioxide}

Reasonable case CLP species based on hazard statements/molecular weight and most common (stable) oxide of arsenic. Industrial sources include: smelting; main precursor to other arsenic compounds (edit as required)

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history (edit as required)

chromium in chromium(III) compounds {chromium(III) oxide}

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass (edit as required)

chromium in chromium(VI) compounds {chromium(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments (edit as required)

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

molybdenum {molybdenum(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

nickel {nickel chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

selenium {selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case. Pigment cadmium sulphoselenide not likely to be present in this soil. No evidence for the other CLP entries: sodium selenite, nickel II selenite and nickel selenide, to be present in this soil. (edit as required)

zinc {zinc chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

barium {barium oxide}

Cr VI not detected

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.1, May 2018
 HazWasteOnline Classification Engine Version: 2020.35.4158.8286 (04 Feb 2020)
 HazWasteOnline Database: 2020.35.4158.8286 (04 Feb 2020)

This classification utilises the following guidance and legislation:

- WM3 v1.1 - Waste Classification** - 1st Edition v1.1 - May 2018
- CLP Regulation** - Regulation 1272/2008/EC of 16 December 2008
- 1st ATP** - Regulation 790/2009/EC of 10 August 2009
- 2nd ATP** - Regulation 286/2011/EC of 10 March 2011
- 3rd ATP** - Regulation 618/2012/EU of 10 July 2012
- 4th ATP** - Regulation 487/2013/EU of 8 May 2013
- Correction to 1st ATP** - Regulation 758/2013/EU of 7 August 2013
- 5th ATP** - Regulation 944/2013/EU of 2 October 2013
- 6th ATP** - Regulation 605/2014/EU of 5 June 2014
- WFD Annex III replacement** - Regulation 1357/2014/EU of 18 December 2014
- Revised List of Wastes 2014** - Decision 2014/955/EU of 18 December 2014
- 7th ATP** - Regulation 2015/1221/EU of 24 July 2015
- 8th ATP** - Regulation (EU) 2016/918 of 19 May 2016
- 9th ATP** - Regulation (EU) 2016/1179 of 19 July 2016
- 10th ATP** - Regulation (EU) 2017/776 of 4 May 2017
- HP14 amendment** - Regulation (EU) 2017/997 of 8 June 2017
- 13th ATP** - Regulation (EU) 2018/1480 of 4 October 2018
- POPs Regulation 2004** - Regulation 850/2004/EC of 29 April 2004
- 1st ATP to POPs Regulation** - Regulation 756/2010/EU of 24 August 2010
- 2nd ATP to POPs Regulation** - Regulation 757/2010/EU of 24 August 2010

Waste Classification Report



L3ZK4-8JZU7-5VTAL

Job name

Sandford Park WS Batch 1

Description/Comments

Project

9338-12-19

Site

Sandford Park Milltown

Related Documents

#	Name	Description
1	Sandford Park WS Batch 1.hwol	.hwol file used to create the Job

Waste Stream Template

Example waste stream template for contaminated soils

Classified by

Name:	Company:	HazWasteOnline™ Training Record:	
Barry Sexton	Ground Investigations Ireland	Course	Date
Date: 12 Feb 2020 07:38 GMT	Catherinstown House, Hazelhatch Road, Newcastle Co. Dublin	Hazardous Waste Classification	09 Apr 2019
Telephone: 00353876119640		Advanced Hazardous Waste Classification	10 Apr 2019

Report

Created by: Barry Sexton
Created date: 12 Feb 2020 07:38 GMT

Job summary

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
1	WS01-16/01/2020-0.70m		Non Hazardous		3
2	WS01-16/01/2020-1.70m		Non Hazardous		6
3	WS01-16/01/2020-2.40m		Non Hazardous		9
4	WS02-16/01/2020-0.70m		Non Hazardous		12
5	WS02-16/01/2020-1.70m		Non Hazardous		15
6	WS02-16/01/2020-2.50m		Non Hazardous		18
7	WS03-16/01/2020-0.70m		Non Hazardous		21
8	WS03-16/01/2020-1.70m		Non Hazardous		24
9	WS03-16/01/2020-2.70m		Non Hazardous		27
10	WS04-17/01/2020-0.70m		Non Hazardous		30
11	WS04-17/01/2020-1.70m		Non Hazardous		33
12	WS05-16/01/2020-0.70m		Non Hazardous		36



#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
13	WS05-16/01/2020-1.70m		Non Hazardous		39
14	WS06-16/01/2020-0.70m		Non Hazardous		42
15	WS06-16/01/2020-1.70m		Non Hazardous		45
16	WS07-16/01/2020-0.70m		Non Hazardous		48
17	WS07-16/01/2020-1.70m		Non Hazardous		51
18	WS07-16/01/2020-2.60m		Non Hazardous		54

Appendices	Page
Appendix A: Classifier defined and non CLP determinands	57
Appendix B: Rationale for selection of metal species	58
Appendix C: Version	59

Classification of sample: WS01-16/01/2020-0.70m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS01-16/01/2020-0.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 17.6% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 17.6% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	1.973 mg/kg	0.000197 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				13.9 mg/kg	1.32	15.122 mg/kg	0.00151 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				3 mg/kg	1.142	2.824 mg/kg	0.000282 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				51.2 mg/kg	1.462	61.661 mg/kg	0.00617 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				46 mg/kg	1.126	42.676 mg/kg	0.00427 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	20 mg/kg	1.56	25.706 mg/kg	0.00165 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				4.9 mg/kg	1.5	6.057 mg/kg	0.000606 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				65.1 mg/kg	2.976	159.654 mg/kg	0.016 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				1 mg/kg	2.554	2.104 mg/kg	0.00021 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				114 mg/kg	2.774	260.592 mg/kg	0.0261 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.37 pH		8.37 pH	8.37 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				0.16 mg/kg		0.132 mg/kg	0.0000132 %	✓	
		201-581-5	85-01-8							
25	anthracene				0.06 mg/kg		0.0494 mg/kg	0.00000494 %	✓	
		204-371-1	120-12-7							
26	fluoranthene				0.25 mg/kg		0.206 mg/kg	0.0000206 %	✓	
		205-912-4	206-44-0							
27	pyrene				0.22 mg/kg		0.181 mg/kg	0.0000181 %	✓	
		204-927-3	129-00-0							
28	benzo[a]anthracene				0.13 mg/kg		0.107 mg/kg	0.0000107 %	✓	
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				0.11 mg/kg		0.0906 mg/kg	0.00000906 %	✓	
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				0.15 mg/kg		0.124 mg/kg	0.0000124 %	✓	
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				0.06 mg/kg		0.0494 mg/kg	0.00000494 %	✓	
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				0.1 mg/kg		0.0824 mg/kg	0.00000824 %	✓	
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				0.08 mg/kg		0.0659 mg/kg	0.00000659 %	✓	
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				0.08 mg/kg		0.0659 mg/kg	0.00000659 %	✓	
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				97 mg/kg	1.117	89.24 mg/kg	0.00892 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0714 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS01-16/01/2020-1.70m

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name: WS01-16/01/2020-1.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 11.3% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

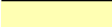



Moisture content: 11.3% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.124 mg/kg	0.000212 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				9.3 mg/kg	1.32	10.891 mg/kg	0.00109 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2 mg/kg	1.142	2.026 mg/kg	0.000203 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				47.9 mg/kg	1.462	62.098 mg/kg	0.00621 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				32 mg/kg	1.126	31.957 mg/kg	0.0032 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	15 mg/kg	1.56	20.753 mg/kg	0.00133 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				5.5 mg/kg	1.5	7.319 mg/kg	0.000732 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				42.7 mg/kg	2.976	112.726 mg/kg	0.0113 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2 mg/kg	2.554	4.53 mg/kg	0.000453 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				96 mg/kg	2.774	236.224 mg/kg	0.0236 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.52 pH		8.52 pH	8.52 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				80 mg/kg	1.117	79.227 mg/kg	0.00792 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0617 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS01-16/01/2020-2.40m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS01-16/01/2020-2.40m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 8.9% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands


Moisture content: 8.9% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.181 mg/kg	0.000218 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				7.6 mg/kg	1.32	9.141 mg/kg	0.000914 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.4 mg/kg	1.142	1.457 mg/kg	0.000146 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				33 mg/kg	1.462	43.939 mg/kg	0.00439 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				22 mg/kg	1.126	22.565 mg/kg	0.00226 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	14 mg/kg	1.56	19.894 mg/kg	0.00128 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				3.4 mg/kg	1.5	4.647 mg/kg	0.000465 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				27.6 mg/kg	2.976	74.834 mg/kg	0.00748 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				3 mg/kg	2.554	6.979 mg/kg	0.000698 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				66 mg/kg	2.774	166.798 mg/kg	0.0167 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				0.015 mg/kg		0.0137 mg/kg	0.00000137 %	✓	
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.73 pH		8.73 pH	8.73 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				55 mg/kg	1.117	55.943 mg/kg	0.00559 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0456 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Solid waste without liquid phase


Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

xylene: (conc.: 1.37e-06%)

Classification of sample: WS02-16/01/2020-0.70m

 **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS02-16/01/2020-0.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 14.4% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 14.4% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				3 mg/kg	1.197	3.074 mg/kg	0.000307 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				13.6 mg/kg	1.32	15.371 mg/kg	0.00154 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				4.7 mg/kg	1.142	4.596 mg/kg	0.00046 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				79.6 mg/kg	1.462	99.587 mg/kg	0.00996 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				31 mg/kg	1.126	29.877 mg/kg	0.00299 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	20 mg/kg	1.56	26.704 mg/kg	0.00171 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				8.7 mg/kg	1.5	11.172 mg/kg	0.00112 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				72.8 mg/kg	2.976	185.471 mg/kg	0.0185 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				3 mg/kg	2.554	6.558 mg/kg	0.000656 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				114 mg/kg	2.774	270.712 mg/kg	0.0271 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.4 pH		8.4 pH	8.4 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				201 mg/kg	1.117	192.102 mg/kg	0.0192 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.089 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS02-16/01/2020-1.70m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS02-16/01/2020-1.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 13.6% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 13.6% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.069 mg/kg	0.000207 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				11.3 mg/kg	1.32	12.891 mg/kg	0.00129 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2.3 mg/kg	1.142	2.27 mg/kg	0.000227 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				44.1 mg/kg	1.462	55.689 mg/kg	0.00557 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				39 mg/kg	1.126	37.938 mg/kg	0.00379 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	17 mg/kg	1.56	22.911 mg/kg	0.00147 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				6.4 mg/kg	1.5	8.295 mg/kg	0.00083 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				51.9 mg/kg	2.976	133.46 mg/kg	0.0133 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2 mg/kg	2.554	4.413 mg/kg	0.000441 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				110 mg/kg	2.774	263.655 mg/kg	0.0264 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.47 pH		8.47 pH	8.47 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				147 mg/kg	1.117	141.805 mg/kg	0.0142 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0732 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS02-16/01/2020-2.50m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS02-16/01/2020-2.50m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 8.6% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 8.6% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number								
1	antimony { antimony trioxide }				<1 mg/kg	1.197	<1.197 mg/kg	<0.00012 %			<LOD
	051-005-00-X	215-175-0	1309-64-4								
2	arsenic { arsenic trioxide }				8.9 mg/kg	1.32	10.74 mg/kg	0.00107 %		✓	
	033-003-00-0	215-481-4	1327-53-3								
3	cadmium { cadmium oxide }				1.1 mg/kg	1.142	1.148 mg/kg	0.000115 %		✓	
	048-002-00-0	215-146-2	1306-19-0								
4	chromium in chromium(III) compounds { chromium(III) oxide }				57.3 mg/kg	1.462	76.545 mg/kg	0.00765 %		✓	
		215-160-9	1308-38-9								
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %			<LOD
	024-001-00-0	215-607-8	1333-82-0								
6	copper { dicopper oxide; copper (I) oxide }				28 mg/kg	1.126	28.814 mg/kg	0.00288 %		✓	
	029-002-00-X	215-270-7	1317-39-1								
7	lead { lead chromate }			1	17 mg/kg	1.56	24.236 mg/kg	0.00155 %		✓	
	082-004-00-2	231-846-0	7758-97-6								
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %			<LOD
	080-010-00-X	231-299-8	7487-94-7								
9	molybdenum { molybdenum(VI) oxide }				4.2 mg/kg	1.5	5.759 mg/kg	0.000576 %		✓	
	042-001-00-9	215-204-7	1313-27-5								
10	nickel { nickel chromate }				42.6 mg/kg	2.976	115.885 mg/kg	0.0116 %		✓	
	028-035-00-7	238-766-5	14721-18-7								
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				3 mg/kg	2.554	7.002 mg/kg	0.0007 %		✓	
	034-002-00-8										
12	zinc { zinc chromate }				98 mg/kg	2.774	248.486 mg/kg	0.0248 %		✓	
	024-007-00-3										
13	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %			<LOD
			TPH								
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
	603-181-00-X	216-653-1	1634-04-4								

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.71 pH		8.71 pH	8.71 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				122 mg/kg	1.117	124.499 mg/kg	0.0124 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.069 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS03-16/01/2020-0.70m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS03-16/01/2020-0.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 15% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 15% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.035 mg/kg	0.000204 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				11.3 mg/kg	1.32	12.682 mg/kg	0.00127 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				3 mg/kg	1.142	2.913 mg/kg	0.000291 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				43.6 mg/kg	1.462	54.165 mg/kg	0.00542 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				39 mg/kg	1.126	37.323 mg/kg	0.00373 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	20 mg/kg	1.56	26.517 mg/kg	0.0017 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				4.5 mg/kg	1.5	5.738 mg/kg	0.000574 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				51 mg/kg	2.976	129.021 mg/kg	0.0129 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				1 mg/kg	2.554	2.171 mg/kg	0.000217 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				95 mg/kg	2.774	224.012 mg/kg	0.0224 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.4 pH		8.4 pH	8.4 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				74 mg/kg	1.117	70.228 mg/kg	0.00702 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0612 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS03-16/01/2020-1.70m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS03-16/01/2020-1.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 14% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 14% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number								
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.059 mg/kg	0.000206 %	✓		
	051-005-00-X	215-175-0	1309-64-4								
2	arsenic { arsenic trioxide }				11.2 mg/kg	1.32	12.717 mg/kg	0.00127 %	✓		
	033-003-00-0	215-481-4	1327-53-3								
3	cadmium { cadmium oxide }				2.3 mg/kg	1.142	2.26 mg/kg	0.000226 %	✓		
	048-002-00-0	215-146-2	1306-19-0								
4	chromium in chromium(III) compounds { chromium(III) oxide }				52.1 mg/kg	1.462	65.486 mg/kg	0.00655 %	✓		
		215-160-9	1308-38-9								
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD	
	024-001-00-0	215-607-8	1333-82-0								
6	copper { dicopper oxide; copper (I) oxide }				37 mg/kg	1.126	35.826 mg/kg	0.00358 %	✓		
	029-002-00-X	215-270-7	1317-39-1								
7	lead { lead chromate }			1	16 mg/kg	1.56	21.463 mg/kg	0.00138 %	✓		
	082-004-00-2	231-846-0	7758-97-6								
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD	
	080-010-00-X	231-299-8	7487-94-7								
9	molybdenum { molybdenum(VI) oxide }				5.1 mg/kg	1.5	6.58 mg/kg	0.000658 %	✓		
	042-001-00-9	215-204-7	1313-27-5								
10	nickel { nickel chromate }				58.4 mg/kg	2.976	149.48 mg/kg	0.0149 %	✓		
	028-035-00-7	238-766-5	14721-18-7								
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2 mg/kg	2.554	4.392 mg/kg	0.000439 %	✓		
	034-002-00-8										
12	zinc { zinc chromate }				98 mg/kg	2.774	233.805 mg/kg	0.0234 %	✓		
	024-007-00-3										
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD	
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD	
	603-181-00-X	216-653-1	1634-04-4								

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.46 pH		8.46 pH	8.46 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				80 mg/kg	1.117	76.816 mg/kg	0.00768 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0658 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS03-16/01/2020-2.70m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS03-16/01/2020-2.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 9.3% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 9.3% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.172 mg/kg	0.000217 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				13.7 mg/kg	1.32	16.406 mg/kg	0.00164 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.6 mg/kg	1.142	1.658 mg/kg	0.000166 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				40.9 mg/kg	1.462	54.218 mg/kg	0.00542 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				23 mg/kg	1.126	23.487 mg/kg	0.00235 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	18 mg/kg	1.56	25.466 mg/kg	0.00163 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				4.1 mg/kg	1.5	5.579 mg/kg	0.000558 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				37.1 mg/kg	2.976	100.15 mg/kg	0.01 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				3 mg/kg	2.554	6.948 mg/kg	0.000695 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				77 mg/kg	2.774	193.744 mg/kg	0.0194 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.69 pH		8.69 pH	8.69 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				110 mg/kg	1.117	111.394 mg/kg	0.0111 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0586 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS04-17/01/2020-0.70m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS04-17/01/2020-0.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 11.5% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 11.5% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.119 mg/kg	0.000212 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				12.3 mg/kg	1.32	14.372 mg/kg	0.00144 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2.7 mg/kg	1.142	2.73 mg/kg	0.000273 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				57.3 mg/kg	1.462	74.116 mg/kg	0.00741 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				39 mg/kg	1.126	38.86 mg/kg	0.00389 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	18 mg/kg	1.56	24.848 mg/kg	0.00159 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				4.5 mg/kg	1.5	5.975 mg/kg	0.000597 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				51.7 mg/kg	2.976	136.178 mg/kg	0.0136 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				1 mg/kg	2.554	2.26 mg/kg	0.000226 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				93 mg/kg	2.774	228.326 mg/kg	0.0228 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.3 pH		8.3 pH	8.3 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				65 mg/kg	1.117	64.227 mg/kg	0.00642 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.064 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS04-17/01/2020-1.70m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS04-17/01/2020-1.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 12.1% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 12.1% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.105 mg/kg	0.00021 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				10.4 mg/kg	1.32	12.07 mg/kg	0.00121 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2.1 mg/kg	1.142	2.109 mg/kg	0.000211 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				36.3 mg/kg	1.462	46.635 mg/kg	0.00466 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				33 mg/kg	1.126	32.659 mg/kg	0.00327 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	17 mg/kg	1.56	23.308 mg/kg	0.00149 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				4.6 mg/kg	1.5	6.066 mg/kg	0.000607 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				47.3 mg/kg	2.976	123.743 mg/kg	0.0124 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2 mg/kg	2.554	4.489 mg/kg	0.000449 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				93 mg/kg	2.774	226.778 mg/kg	0.0227 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.32 pH		8.32 pH	8.32 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				75 mg/kg	1.117	73.606 mg/kg	0.00736 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.06 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS05-16/01/2020-0.70m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS05-16/01/2020-0.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 12.9% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 12.9% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.085 mg/kg	0.000209 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				10.6 mg/kg	1.32	12.19 mg/kg	0.00122 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.9 mg/kg	1.142	1.89 mg/kg	0.000189 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				46.4 mg/kg	1.462	59.068 mg/kg	0.00591 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				33 mg/kg	1.126	32.361 mg/kg	0.00324 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	17 mg/kg	1.56	23.096 mg/kg	0.00148 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				3.8 mg/kg	1.5	4.965 mg/kg	0.000497 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				46.6 mg/kg	2.976	120.802 mg/kg	0.0121 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				1 mg/kg	2.554	2.224 mg/kg	0.000222 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				85 mg/kg	2.774	205.384 mg/kg	0.0205 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.53 pH		8.53 pH	8.53 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				77 mg/kg	1.117	74.881 mg/kg	0.00749 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0585 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS05-16/01/2020-1.70m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS05-16/01/2020-1.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 11.7% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 11.7% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.114 mg/kg	0.000211 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				9 mg/kg	1.32	10.493 mg/kg	0.00105 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2.1 mg/kg	1.142	2.118 mg/kg	0.000212 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				41 mg/kg	1.462	52.913 mg/kg	0.00529 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				33 mg/kg	1.126	32.807 mg/kg	0.00328 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	15 mg/kg	1.56	20.66 mg/kg	0.00132 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				5.1 mg/kg	1.5	6.756 mg/kg	0.000676 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				40.4 mg/kg	2.976	106.173 mg/kg	0.0106 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				1 mg/kg	2.554	2.255 mg/kg	0.000225 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				91 mg/kg	2.774	222.911 mg/kg	0.0223 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.48 pH		8.48 pH	8.48 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				85 mg/kg	1.117	83.799 mg/kg	0.00838 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.059 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS06-16/01/2020-0.70m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS06-16/01/2020-0.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 17.5% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 17.5% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				3 mg/kg	1.197	2.963 mg/kg	0.000296 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				15.7 mg/kg	1.32	17.102 mg/kg	0.00171 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				3.6 mg/kg	1.142	3.393 mg/kg	0.000339 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				50.1 mg/kg	1.462	60.41 mg/kg	0.00604 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				37 mg/kg	1.126	34.368 mg/kg	0.00344 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	22 mg/kg	1.56	28.311 mg/kg	0.00181 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				6 mg/kg	1.5	7.426 mg/kg	0.000743 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				65.8 mg/kg	2.976	161.567 mg/kg	0.0162 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2 mg/kg	2.554	4.213 mg/kg	0.000421 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				109 mg/kg	2.774	249.465 mg/kg	0.0249 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.32 pH		8.32 pH	8.32 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				163 mg/kg	1.117	150.142 mg/kg	0.015 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0764 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS06-16/01/2020-1.70m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS06-16/01/2020-1.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 12.9% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 12.9% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	antimony { antimony trioxide }				2	mg/kg	1.197	2.085	mg/kg	0.000209 %	✓	
	051-005-00-X	215-175-0	1309-64-4									
2	arsenic { arsenic trioxide }				10.3	mg/kg	1.32	11.845	mg/kg	0.00118 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium oxide }				2.1	mg/kg	1.142	2.089	mg/kg	0.000209 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
4	chromium in chromium(III) compounds { chromium(III) oxide }				33.4	mg/kg	1.462	42.519	mg/kg	0.00425 %	✓	
		215-160-9	1308-38-9									
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
6	copper { dicopper oxide; copper (I) oxide }				33	mg/kg	1.126	32.361	mg/kg	0.00324 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	14	mg/kg	1.56	19.02	mg/kg	0.00122 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.1	mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	molybdenum { molybdenum(VI) oxide }				4.2	mg/kg	1.5	5.488	mg/kg	0.000549 %	✓	
	042-001-00-9	215-204-7	1313-27-5									
10	nickel { nickel chromate }				42.2	mg/kg	2.976	109.396	mg/kg	0.0109 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2	mg/kg	2.554	4.448	mg/kg	0.000445 %	✓	
	034-002-00-8											
12	zinc { zinc chromate }				86	mg/kg	2.774	207.8	mg/kg	0.0208 %	✓	
	024-007-00-3											
13	TPH (C6 to C40) petroleum group		TPH		<52	mg/kg		<52	mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.2 pH		8.2 pH	8.2 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				105 mg/kg	1.117	102.11 mg/kg	0.0102 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0587 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS07-16/01/2020-0.70m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS07-16/01/2020-0.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 13.2% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 13.2% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.078 mg/kg	0.000208 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				9.1 mg/kg	1.32	10.429 mg/kg	0.00104 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2.4 mg/kg	1.142	2.38 mg/kg	0.000238 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				52.6 mg/kg	1.462	66.73 mg/kg	0.00667 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				31 mg/kg	1.126	30.295 mg/kg	0.00303 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	15 mg/kg	1.56	20.309 mg/kg	0.0013 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				4 mg/kg	1.5	5.209 mg/kg	0.000521 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				39.3 mg/kg	2.976	101.528 mg/kg	0.0102 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				1 mg/kg	2.554	2.217 mg/kg	0.000222 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				79 mg/kg	2.774	190.229 mg/kg	0.019 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.32 pH		8.32 pH	8.32 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				60 mg/kg	1.117	58.148 mg/kg	0.00581 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0537 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS07-16/01/2020-1.70m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS07-16/01/2020-1.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 11.8% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 11.8% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	antimony { antimony trioxide }				2	mg/kg	1.197	2.112	mg/kg	0.000211 %	✓	
	051-005-00-X	215-175-0	1309-64-4									
2	arsenic { arsenic trioxide }				10.8	mg/kg	1.32	12.577	mg/kg	0.00126 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium oxide }				2.5	mg/kg	1.142	2.519	mg/kg	0.000252 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
4	chromium in chromium(III) compounds { chromium(III) oxide }				44.6	mg/kg	1.462	57.494	mg/kg	0.00575 %	✓	
		215-160-9	1308-38-9									
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
6	copper { dicopper oxide; copper (I) oxide }				37	mg/kg	1.126	36.742	mg/kg	0.00367 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	16	mg/kg	1.56	22.012	mg/kg	0.00141 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.1	mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	molybdenum { molybdenum(VI) oxide }				5.5	mg/kg	1.5	7.277	mg/kg	0.000728 %	✓	
	042-001-00-9	215-204-7	1313-27-5									
10	nickel { nickel chromate }				46.8	mg/kg	2.976	122.853	mg/kg	0.0123 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				1	mg/kg	2.554	2.252	mg/kg	0.000225 %	✓	
	034-002-00-8											
12	zinc { zinc chromate }				93	mg/kg	2.774	227.552	mg/kg	0.0228 %	✓	
	024-007-00-3											
13	TPH (C6 to C40) petroleum group		TPH		<52	mg/kg		<52	mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									




#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.45 pH		8.45 pH	8.45 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				105 mg/kg	1.117	103.4 mg/kg	0.0103 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0643 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS07-16/01/2020-2.60m

 **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS07-16/01/2020-2.60m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 9.2% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

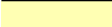



Moisture content: 9.2% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.174 mg/kg	0.000217 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				10.1 mg/kg	1.32	12.108 mg/kg	0.00121 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.9 mg/kg	1.142	1.971 mg/kg	0.000197 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				40.6 mg/kg	1.462	53.88 mg/kg	0.00539 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				28 mg/kg	1.126	28.625 mg/kg	0.00286 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	17 mg/kg	1.56	24.077 mg/kg	0.00154 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				5.3 mg/kg	1.5	7.22 mg/kg	0.000722 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				42.5 mg/kg	2.976	114.854 mg/kg	0.0115 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				4 mg/kg	2.554	9.275 mg/kg	0.000927 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				87 mg/kg	2.774	219.146 mg/kg	0.0219 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.68 pH		8.68 pH	8.68 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				102 mg/kg	1.117	103.406 mg/kg	0.0103 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0623 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Appendix A: Classifier defined and non CLP determinands

• **chromium(III) oxide** (EC Number: 215-160-9, CAS Number: 1308-38-9)

Conversion factor: 1.462

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Repr. 1B H360FD , Skin Sens. 1 H317 , Resp. Sens. 1 H334 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Acute Tox. 4 H302 , Acute Tox. 4 H332

• **TPH (C6 to C40) petroleum group** (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: Aquatic Chronic 2 H411 , Repr. 2 H361d , Carc. 1B H350 , Muta. 1B H340 , STOT RE 2 H373 , Asp. Tox. 1 H304 , Flam. Liq. 3 H226

• **ethylbenzene** (EC Number: 202-849-4, CAS Number: 100-41-4)

CLP index number: 601-023-00-4

Description/Comments:

Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)

Additional Hazard Statement(s): Carc. 2 H351

Reason for additional Hazards Statement(s):

03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2B (77) 2000

• **pH** (CAS Number: PH)

Description/Comments: Appendix C4

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: None.

• **acenaphthylene** (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Acute Tox. 1 H310 , Acute Tox. 1 H330 , Acute Tox. 4 H302

• **acenaphthene** (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Aquatic Chronic 2 H411 , Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319

• **fluorene** (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400

• **phenanthrene** (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Skin Irrit. 2 H315 , Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Skin Sens. 1 H317 , Carc. 2 H351 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Acute Tox. 4 H302

• **anthracene** (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Skin Sens. 1 H317 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319

▪ **fluoranthene** (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 21 Aug 2015
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Acute Tox. 4 H302

▪ **pyrene** (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 21 Aug 2015
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Skin Irrit. 2 H315

▪ **indeno[123-cd]pyrene** (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2 H351

▪ **benzo[ghi]perylene** (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400

▪ **polychlorobiphenyls; PCB** (EC Number: 215-648-1, CAS Number: 1336-36-3)

CLP index number: 602-039-00-4
Description/Comments: Worst Case: IARC considers PCB Group 1; Carcinogenic to humans; POP specific threshold from ATP1 (Regulation 756/2010/EU) to POPs Regulation (Regulation 850/2004/EC). Where applicable, the calculation method laid down in European standards EN 12766-1 and EN 12766-2 shall be applied.
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Hazard Statement(s): Carc. 1A H350
Reason for additional Hazards Statement(s):
29 Sep 2015 - Carc. 1A H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

▪ **barium oxide** (EC Number: 215-127-9, CAS Number: 1304-28-5)

Conversion factor: 1.117
Description/Comments: Data from C&L Inventory Database; No entries in Registered Substances Database, IARC or Pesticide Properties Database
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=88825&HarmOnly=no?fc=true&lang=en>
Data source date: 02 Jun 2014
Hazard Statements: Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Skin Corr. 1A H314 , Acute Tox. 3 H301 , Acute Tox. 4 H302 , Acute Tox. 4 H332

▪ **coronene** (EC Number: 205-881-7, CAS Number: 191-07-1)

Description/Comments: Data from C&L Inventory Database; no entries in Registered Substances or Pesticides Properties databases; SDS: Sigma Aldrich, 1907/2006 compliant, dated 2012 - no entries; IARC – Group 3, not carcinogenic.
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=17010&HarmOnly=no?fc=true&lang=en>
Data source date: 16 Jun 2014
Hazard Statements: STOT SE 2 H371

Appendix B: Rationale for selection of metal species

antimony {antimony trioxide}

Worst case CLP species based on hazard statements/molecular weight and low solubility. Industrial sources include: flame retardants in electrical apparatus, textiles and coatings (edit as required)

arsenic {arsenic trioxide}

Reasonable case CLP species based on hazard statements/molecular weight and most common (stable) oxide of arsenic. Industrial sources include: smelting; main precursor to other arsenic compounds (edit as required)

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history (edit as required)

chromium in chromium(III) compounds {chromium(III) oxide}

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass (edit as required)

chromium in chromium(VI) compounds {chromium(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments (edit as required)

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

molybdenum {molybdenum(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

nickel {nickel chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

selenium {selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case. Pigment cadmium sulphoselenide not likely to be present in this soil. No evidence for the other CLP entries: sodium selenite, nickel II selenite and nickel selenide, to be present in this soil. (edit as required)

zinc {zinc chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

barium {barium oxide}

Cr VI not detected

Appendix C: Version

HazWasteOnline Classification Engine: **WM3 1st Edition v1.1, May 2018**
 HazWasteOnline Classification Engine Version: 2020.42.4165.8301 (11 Feb 2020)
 HazWasteOnline Database: 2020.42.4165.8301 (11 Feb 2020)

This classification utilises the following guidance and legislation:
WM3 v1.1 - Waste Classification - 1st Edition v1.1 - May 2018
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Wastes 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
POPs Regulation 2004 - Regulation 850/2004/EC of 29 April 2004
1st ATP to POPs Regulation - Regulation 756/2010/EU of 24 August 2010
2nd ATP to POPs Regulation - Regulation 757/2010/EU of 24 August 2010

Waste Classification Report



QTBMW-B26F4-2KM2R

Job name

Sandford Park WS Batch 2

Description/Comments

Project

9338-12-19

Site

Sandford Park Milltown

Related Documents

#	Name	Description
1	Sandford Park WS Batch 2.hwol	.hwol file used to create the Job

Waste Stream Template

Example waste stream template for contaminated soils

Classified by

Name:	Company:	HazWasteOnline™ Training Record:	
Barry Sexton	Ground Investigations Ireland	Course	Date
Date: 12 Feb 2020 07:40 GMT	Catherinstown House, Hazelhatch Road, Newcastle Co. Dublin	Hazardous Waste Classification	09 Apr 2019
Telephone: 00353876119640		Advanced Hazardous Waste Classification	10 Apr 2019

Report

Created by: Barry Sexton
Created date: 12 Feb 2020 07:40 GMT

Job summary

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
1	WS08-17/01/2020-0.70m		Non Hazardous		3
2	WS08-17/01/2020-1.70m		Non Hazardous		6
3	WS08-17/01/2020-2.60m		Non Hazardous		9
4	WS09-16/01/2020-0.70m		Non Hazardous		12
5	WS09-16/01/2020-1.70m		Non Hazardous		15
6	WS09-16/01/2020-2.60m		Non Hazardous		18
7	WS10-16/01/2020-0.70m		Non Hazardous		21
8	WS10-16/01/2020-1.70m		Non Hazardous		24
9	WS10-16/01/2020-2.30m		Non Hazardous		27
10	WS11-16/01/2020-0.70m		Non Hazardous		30
11	WS11-16/01/2020-1.70m		Non Hazardous		33
12	WS11-16/01/2020-2.20m		Non Hazardous		36



#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
13	WS12-17/01/2020-0.70m		Non Hazardous		39
14	WS12-17/01/2020-1.70m		Non Hazardous		42
15	WS12-17/01/2020-2.50m		Non Hazardous		45
16	WS13-17/01/2020-0.70m		Non Hazardous		48
17	WS13-17/01/2020-1.40m		Non Hazardous		51
18	WS14-17/01/2020-0.70m		Non Hazardous		54
19	WS14-17/01/2020-1.70m		Non Hazardous		57
20	WS14-17/01/2020-2.70m		Non Hazardous		60

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Appendix B: Rationale for selection of metal species	64
Appendix C: Version	65

Classification of sample: WS08-17/01/2020-0.70m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS08-17/01/2020-0.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 11.9% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 11.9% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.109 mg/kg	0.000211 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				6.9 mg/kg	1.32	8.026 mg/kg	0.000803 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.2 mg/kg	1.142	1.208 mg/kg	0.000121 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				50.2 mg/kg	1.462	64.639 mg/kg	0.00646 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				20 mg/kg	1.126	19.838 mg/kg	0.00198 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	11 mg/kg	1.56	15.116 mg/kg	0.000969 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				3.5 mg/kg	1.5	4.626 mg/kg	0.000463 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				29.6 mg/kg	2.976	77.614 mg/kg	0.00776 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				1 mg/kg	2.554	2.25 mg/kg	0.000225 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				80 mg/kg	2.774	195.522 mg/kg	0.0196 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							




#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.3 pH		8.3 pH	8.3 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				65 mg/kg	1.117	63.937 mg/kg	0.00639 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0504 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS08-17/01/2020-1.70m

 **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name: WS08-17/01/2020-1.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 9.8% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 9.8% Wet Weight Moisture Correction applied (MC)





#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number								
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.16	mg/kg	0.000216 %	✓	
	051-005-00-X	215-175-0	1309-64-4								
2	arsenic { arsenic trioxide }				7.6 mg/kg	1.32	9.051	mg/kg	0.000905 %	✓	
	033-003-00-0	215-481-4	1327-53-3								
3	cadmium { cadmium oxide }				1.7 mg/kg	1.142	1.752	mg/kg	0.000175 %	✓	
	048-002-00-0	215-146-2	1306-19-0								
4	chromium in chromium(III) compounds { chromium(III) oxide }				42.5 mg/kg	1.462	56.029	mg/kg	0.0056 %	✓	
		215-160-9	1308-38-9								
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0								
6	copper { dicopper oxide; copper (I) oxide }				26 mg/kg	1.126	26.404	mg/kg	0.00264 %	✓	
	029-002-00-X	215-270-7	1317-39-1								
7	lead { lead chromate }			1	14 mg/kg	1.56	19.697	mg/kg	0.00126 %	✓	
	082-004-00-2	231-846-0	7758-97-6								
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7								
9	molybdenum { molybdenum(VI) oxide }				4.9 mg/kg	1.5	6.631	mg/kg	0.000663 %	✓	
	042-001-00-9	215-204-7	1313-27-5								
10	nickel { nickel chromate }				35.2 mg/kg	2.976	94.498	mg/kg	0.00945 %	✓	
	028-035-00-7	238-766-5	14721-18-7								
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				1 mg/kg	2.554	2.303	mg/kg	0.00023 %	✓	
	034-002-00-8										
12	zinc { zinc chromate }				76 mg/kg	2.774	190.173	mg/kg	0.019 %	✓	
	024-007-00-3										
13	TPH (C6 to C40) petroleum group				<52 mg/kg		<52	mg/kg	<0.0052 %		<LOD
			TPH								
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4								



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.44 pH		8.44 pH	8.44 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				94 mg/kg	1.117	94.666 mg/kg	0.00947 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0551 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS08-17/01/2020-2.60m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS08-17/01/2020-2.60m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 8.2% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 8.2% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.198 mg/kg	0.00022 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				10.9 mg/kg	1.32	13.211 mg/kg	0.00132 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2.4 mg/kg	1.142	2.517 mg/kg	0.000252 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				39.2 mg/kg	1.462	52.595 mg/kg	0.00526 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				32 mg/kg	1.126	33.074 mg/kg	0.00331 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	17 mg/kg	1.56	24.342 mg/kg	0.00156 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				5.2 mg/kg	1.5	7.161 mg/kg	0.000716 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				40 mg/kg	2.976	109.288 mg/kg	0.0109 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				3 mg/kg	2.554	7.033 mg/kg	0.000703 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				96 mg/kg	2.774	244.48 mg/kg	0.0244 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.33 pH		8.33 pH	8.33 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				42 mg/kg	1.117	43.048 mg/kg	0.0043 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0585 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS09-16/01/2020-0.70m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS09-16/01/2020-0.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 13.6% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 13.6% Wet Weight Moisture Correction applied (MC)





#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.069 mg/kg	0.000207 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				8.1 mg/kg	1.32	9.24 mg/kg	0.000924 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.9 mg/kg	1.142	1.875 mg/kg	0.000188 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				37.6 mg/kg	1.462	47.481 mg/kg	0.00475 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				30 mg/kg	1.126	29.183 mg/kg	0.00292 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	14 mg/kg	1.56	18.868 mg/kg	0.00121 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				3.5 mg/kg	1.5	4.537 mg/kg	0.000454 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				35.5 mg/kg	2.976	91.288 mg/kg	0.00913 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				1 mg/kg	2.554	2.206 mg/kg	0.000221 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				62 mg/kg	2.774	148.605 mg/kg	0.0149 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.55 pH		8.55 pH	8.55 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				312 mg/kg	1.117	300.974 mg/kg	0.0301 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0704 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS09-16/01/2020-1.70m

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name: WS09-16/01/2020-1.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 10.5% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 10.5% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	antimony { antimony trioxide }				2	mg/kg	1.197	2.143	mg/kg	0.000214 %	✔	
	051-005-00-X	215-175-0	1309-64-4									
2	arsenic { arsenic trioxide }				9.4	mg/kg	1.32	11.108	mg/kg	0.00111 %	✔	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium oxide }				2.1	mg/kg	1.142	2.147	mg/kg	0.000215 %	✔	
	048-002-00-0	215-146-2	1306-19-0									
4	chromium in chromium(III) compounds { chromium(III) oxide }				47.1	mg/kg	1.462	61.611	mg/kg	0.00616 %	✔	
		215-160-9	1308-38-9									
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
6	copper { dicopper oxide; copper (I) oxide }				33	mg/kg	1.126	33.253	mg/kg	0.00333 %	✔	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	16	mg/kg	1.56	22.337	mg/kg	0.00143 %	✔	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.1	mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	molybdenum { molybdenum(VI) oxide }				4.7	mg/kg	1.5	6.311	mg/kg	0.000631 %	✔	
	042-001-00-9	215-204-7	1313-27-5									
10	nickel { nickel chromate }				43	mg/kg	2.976	114.542	mg/kg	0.0115 %	✔	
	028-035-00-7	238-766-5	14721-18-7									
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2	mg/kg	2.554	4.571	mg/kg	0.000457 %	✔	
	034-002-00-8											
12	zinc { zinc chromate }				94	mg/kg	2.774	233.389	mg/kg	0.0233 %	✔	
	024-007-00-3											
13	TPH (C6 to C40) petroleum group				<52	mg/kg		<52	mg/kg	<0.0052 %		<LOD
			TPH									
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.6 pH		8.6 pH	8.6 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				87 mg/kg	1.117	86.937 mg/kg	0.00869 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0625 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS09-16/01/2020-2.60m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS09-16/01/2020-2.60m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 7.6% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 7.6% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.212 mg/kg	0.000221 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				11.6 mg/kg	1.32	14.152 mg/kg	0.00142 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.9 mg/kg	1.142	2.005 mg/kg	0.000201 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				38.2 mg/kg	1.462	51.588 mg/kg	0.00516 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				32 mg/kg	1.126	33.29 mg/kg	0.00333 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	18 mg/kg	1.56	25.943 mg/kg	0.00166 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				4.9 mg/kg	1.5	6.792 mg/kg	0.000679 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				41.2 mg/kg	2.976	113.303 mg/kg	0.0113 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				5 mg/kg	2.554	11.798 mg/kg	0.00118 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				98 mg/kg	2.774	251.205 mg/kg	0.0251 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.65 pH		8.65 pH	8.65 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				0.05 mg/kg		0.0462 mg/kg	0.00000462 %	✓	
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				0.03 mg/kg		0.0277 mg/kg	0.00000277 %	✓	
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				64 mg/kg	1.117	66.026 mg/kg	0.0066 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0623 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS10-16/01/2020-0.70m

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name: WS10-16/01/2020-0.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 11.6% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 11.6% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	antimony { antimony trioxide }				2	mg/kg	1.197	2.116	mg/kg	0.000212 %	✓	
	051-005-00-X	215-175-0	1309-64-4									
2	arsenic { arsenic trioxide }				13.3	mg/kg	1.32	15.523	mg/kg	0.00155 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium oxide }				2.5	mg/kg	1.142	2.525	mg/kg	0.000252 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
4	chromium in chromium(III) compounds { chromium(III) oxide }				42.2	mg/kg	1.462	54.523	mg/kg	0.00545 %	✓	
		215-160-9	1308-38-9									
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
6	copper { dicopper oxide; copper (I) oxide }				40	mg/kg	1.126	39.811	mg/kg	0.00398 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	17	mg/kg	1.56	23.441	mg/kg	0.0015 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.1	mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	molybdenum { molybdenum(VI) oxide }				4.6	mg/kg	1.5	6.1	mg/kg	0.00061 %	✓	
	042-001-00-9	215-204-7	1313-27-5									
10	nickel { nickel chromate }				51	mg/kg	2.976	134.182	mg/kg	0.0134 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				1	mg/kg	2.554	2.257	mg/kg	0.000226 %	✓	
	034-002-00-8											
12	zinc { zinc chromate }				101	mg/kg	2.774	247.687	mg/kg	0.0248 %	✓	
	024-007-00-3											
13	TPH (C6 to C40) petroleum group		TPH		<52	mg/kg		<52	mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.48 pH		8.48 pH	8.48 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				69 mg/kg	1.117	68.102 mg/kg	0.00681 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0642 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS10-16/01/2020-1.70m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS10-16/01/2020-1.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 12.2% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 12.2% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.102 mg/kg	0.00021 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				11.3 mg/kg	1.32	13.099 mg/kg	0.00131 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2.1 mg/kg	1.142	2.106 mg/kg	0.000211 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				42.8 mg/kg	1.462	54.923 mg/kg	0.00549 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				31 mg/kg	1.126	30.644 mg/kg	0.00306 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	19 mg/kg	1.56	26.021 mg/kg	0.00167 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				4.7 mg/kg	1.5	6.191 mg/kg	0.000619 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				39.2 mg/kg	2.976	102.436 mg/kg	0.0102 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
12	zinc { zinc chromate }				90 mg/kg	2.774	219.213 mg/kg	0.0219 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.56 pH		8.56 pH	8.56 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				63 mg/kg	1.117	61.758 mg/kg	0.00618 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0566 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS10-16/01/2020-2.30m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS10-16/01/2020-2.30m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 11.5% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 11.5% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	antimony { antimony trioxide }				2	mg/kg	1.197	2.119	mg/kg	0.000212 %	✓	
	051-005-00-X	215-175-0	1309-64-4									
2	arsenic { arsenic trioxide }				11	mg/kg	1.32	12.853	mg/kg	0.00129 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium oxide }				2	mg/kg	1.142	2.022	mg/kg	0.000202 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
4	chromium in chromium(III) compounds { chromium(III) oxide }				36.7	mg/kg	1.462	47.471	mg/kg	0.00475 %	✓	
		215-160-9	1308-38-9									
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
6	copper { dicopper oxide; copper (I) oxide }				30	mg/kg	1.126	29.892	mg/kg	0.00299 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	17	mg/kg	1.56	23.467	mg/kg	0.0015 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.1	mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	molybdenum { molybdenum(VI) oxide }				4.4	mg/kg	1.5	5.842	mg/kg	0.000584 %	✓	
	042-001-00-9	215-204-7	1313-27-5									
10	nickel { nickel chromate }				39.7	mg/kg	2.976	104.57	mg/kg	0.0105 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2	mg/kg	2.554	4.52	mg/kg	0.000452 %	✓	
	034-002-00-8											
12	zinc { zinc chromate }				86	mg/kg	2.774	211.14	mg/kg	0.0211 %	✓	
	024-007-00-3											
13	TPH (C6 to C40) petroleum group		TPH		<52	mg/kg		<52	mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				0.058 mg/kg		0.0513 mg/kg	0.00000513 %	✓	
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.66 pH		8.66 pH	8.66 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				63 mg/kg	1.117	62.251 mg/kg	0.00623 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0552 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected

CLP: Note 1 Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Solid waste without liquid phase

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

xylene: (conc.: 5.13e-06%)

Classification of sample: WS11-16/01/2020-0.70m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS11-16/01/2020-0.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 11.7% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 11.7% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.114 mg/kg	0.000211 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				11.5 mg/kg	1.32	13.407 mg/kg	0.00134 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2.6 mg/kg	1.142	2.623 mg/kg	0.000262 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				39.3 mg/kg	1.462	50.719 mg/kg	0.00507 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				36 mg/kg	1.126	35.79 mg/kg	0.00358 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	16 mg/kg	1.56	22.037 mg/kg	0.00141 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				4 mg/kg	1.5	5.299 mg/kg	0.00053 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				47.4 mg/kg	2.976	124.569 mg/kg	0.0125 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				1 mg/kg	2.554	2.255 mg/kg	0.000225 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				83 mg/kg	2.774	203.314 mg/kg	0.0203 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.6 pH		8.6 pH	8.6 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				113 mg/kg	1.117	111.404 mg/kg	0.0111 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.062 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS11-16/01/2020-1.70m

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name: WS11-16/01/2020-1.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 10.9% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 10.9% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	antimony { antimony trioxide }				2	mg/kg	1.197	2.133	mg/kg	0.000213 %	✓	
	051-005-00-X	215-175-0	1309-64-4									
2	arsenic { arsenic trioxide }				10.6	mg/kg	1.32	12.47	mg/kg	0.00125 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium oxide }				2.9	mg/kg	1.142	2.952	mg/kg	0.000295 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
4	chromium in chromium(III) compounds { chromium(III) oxide }				37.5	mg/kg	1.462	48.834	mg/kg	0.00488 %	✓	
		215-160-9	1308-38-9									
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
6	copper { dicopper oxide; copper (I) oxide }				32	mg/kg	1.126	32.101	mg/kg	0.00321 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	16	mg/kg	1.56	22.237	mg/kg	0.00143 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.1	mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	molybdenum { molybdenum(VI) oxide }				4	mg/kg	1.5	5.347	mg/kg	0.000535 %	✓	
	042-001-00-9	215-204-7	1313-27-5									
10	nickel { nickel chromate }				37.9	mg/kg	2.976	100.505	mg/kg	0.0101 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
12	zinc { zinc chromate }				103	mg/kg	2.774	254.592	mg/kg	0.0255 %	✓	
	024-007-00-3											
13	TPH (C6 to C40) petroleum group		TPH		<52	mg/kg		<52	mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.57 pH		8.57 pH	8.57 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				65 mg/kg	1.117	64.662 mg/kg	0.00647 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0595 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS11-16/01/2020-2.20m

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name: WS11-16/01/2020-2.20m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 10.6% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

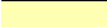



Moisture content: 10.6% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	antimony { antimony trioxide }				2	mg/kg	1.197	2.14	mg/kg	0.000214 %	✓	
	051-005-00-X	215-175-0	1309-64-4									
2	arsenic { arsenic trioxide }				10.2	mg/kg	1.32	12.04	mg/kg	0.0012 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium oxide }				2	mg/kg	1.142	2.042	mg/kg	0.000204 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
4	chromium in chromium(III) compounds { chromium(III) oxide }				50.8	mg/kg	1.462	66.377	mg/kg	0.00664 %	✓	
		215-160-9	1308-38-9									
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
6	copper { dicopper oxide; copper (I) oxide }				32	mg/kg	1.126	32.209	mg/kg	0.00322 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	18	mg/kg	1.56	25.101	mg/kg	0.00161 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.1	mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	molybdenum { molybdenum(VI) oxide }				5.1	mg/kg	1.5	6.84	mg/kg	0.000684 %	✓	
	042-001-00-9	215-204-7	1313-27-5									
10	nickel { nickel chromate }				44.7	mg/kg	2.976	118.937	mg/kg	0.0119 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				1	mg/kg	2.554	2.283	mg/kg	0.000228 %	✓	
	034-002-00-8											
12	zinc { zinc chromate }				91	mg/kg	2.774	225.688	mg/kg	0.0226 %	✓	
	024-007-00-3											
13	TPH (C6 to C40) petroleum group				<52	mg/kg		<52	mg/kg	<0.0052 %		<LOD
			TPH									
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				0.026 mg/kg		0.0232 mg/kg	0.0000232 %	✓	
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.65 pH		8.65 pH	8.65 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				92 mg/kg	1.117	91.83 mg/kg	0.00918 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0631 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Solid waste without liquid phase

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

xylene: (conc.: 2.32e-06%)

Classification of sample: WS12-17/01/2020-0.70m

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name: WS12-17/01/2020-0.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 21.2% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 21.2% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	1.887 mg/kg	0.000189 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				12.3 mg/kg	1.32	12.797 mg/kg	0.00128 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.4 mg/kg	1.142	1.26 mg/kg	0.000126 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				64 mg/kg	1.462	73.709 mg/kg	0.00737 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				30 mg/kg	1.126	26.616 mg/kg	0.00266 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	25 mg/kg	1.56	30.728 mg/kg	0.00197 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				4.3 mg/kg	1.5	5.083 mg/kg	0.000508 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				34.1 mg/kg	2.976	79.975 mg/kg	0.008 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				1 mg/kg	2.554	2.012 mg/kg	0.000201 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				164 mg/kg	2.774	358.509 mg/kg	0.0359 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							




#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.29 pH		8.29 pH	8.29 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				80 mg/kg	1.117	70.385 mg/kg	0.00704 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0706 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS12-17/01/2020-1.70m

 **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS12-17/01/2020-1.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 9.8% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 9.8% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.16 mg/kg	0.000216 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				9.4 mg/kg	1.32	11.195 mg/kg	0.00112 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.9 mg/kg	1.142	1.958 mg/kg	0.000196 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				40.2 mg/kg	1.462	52.997 mg/kg	0.0053 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				29 mg/kg	1.126	29.451 mg/kg	0.00295 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	16 mg/kg	1.56	22.511 mg/kg	0.00144 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				4.4 mg/kg	1.5	5.954 mg/kg	0.000595 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				41.1 mg/kg	2.976	110.337 mg/kg	0.011 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
12	zinc { zinc chromate }				89 mg/kg	2.774	222.703 mg/kg	0.0223 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.43 pH		8.43 pH	8.43 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				88 mg/kg	1.117	88.624 mg/kg	0.00886 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0597 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS12-17/01/2020-2.50m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS12-17/01/2020-2.50m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 9.1% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 9.1% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.176 mg/kg	0.000218 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				10.1 mg/kg	1.32	12.122 mg/kg	0.00121 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.8 mg/kg	1.142	1.869 mg/kg	0.000187 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				37.4 mg/kg	1.462	49.688 mg/kg	0.00497 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				31 mg/kg	1.126	31.726 mg/kg	0.00317 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	18 mg/kg	1.56	25.522 mg/kg	0.00164 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				4.5 mg/kg	1.5	6.137 mg/kg	0.000614 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				39.3 mg/kg	2.976	106.323 mg/kg	0.0106 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				3 mg/kg	2.554	6.964 mg/kg	0.000696 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				86 mg/kg	2.774	216.866 mg/kg	0.0217 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.67 pH		8.67 pH	8.67 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				0.06 mg/kg		0.0545 mg/kg	0.00000545 %	✓	
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				0.03 mg/kg		0.0273 mg/kg	0.00000273 %	✓	
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				130 mg/kg	1.117	131.937 mg/kg	0.0132 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0637 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS13-17/01/2020-0.70m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS13-17/01/2020-0.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 12.1% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 12.1% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.105 mg/kg	0.00021 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				10.4 mg/kg	1.32	12.07 mg/kg	0.00121 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2.3 mg/kg	1.142	2.309 mg/kg	0.000231 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				40.5 mg/kg	1.462	52.031 mg/kg	0.0052 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				31 mg/kg	1.126	30.679 mg/kg	0.00307 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	14 mg/kg	1.56	19.195 mg/kg	0.00123 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				3.5 mg/kg	1.5	4.615 mg/kg	0.000462 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				40.5 mg/kg	2.976	105.954 mg/kg	0.0106 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
12	zinc { zinc chromate }				83 mg/kg	2.774	202.393 mg/kg	0.0202 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.58 pH		8.58 pH	8.58 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				71 mg/kg	1.117	69.68 mg/kg	0.00697 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0551 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS13-17/01/2020-1.40m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS13-17/01/2020-1.40m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 10.7% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 10.7% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.138 mg/kg	0.000214 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				9.8 mg/kg	1.32	11.555 mg/kg	0.00116 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.9 mg/kg	1.142	1.938 mg/kg	0.000194 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				34.4 mg/kg	1.462	44.898 mg/kg	0.00449 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				33 mg/kg	1.126	33.179 mg/kg	0.00332 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	15 mg/kg	1.56	20.894 mg/kg	0.00134 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				4 mg/kg	1.5	5.359 mg/kg	0.000536 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				41.7 mg/kg	2.976	110.83 mg/kg	0.0111 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
12	zinc { zinc chromate }				89 mg/kg	2.774	220.481 mg/kg	0.022 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				0.015 mg/kg		0.0134 mg/kg	0.00000134 %	✓	
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.62 pH		8.62 pH	8.62 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				64 mg/kg	1.117	63.811 mg/kg	0.00638 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0565 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected

CLP: Note 1 Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Solid waste without liquid phase

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

xylene: (conc.: 1.34e-06%)

Classification of sample: WS14-17/01/2020-0.70m

✔ **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS14-17/01/2020-0.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 11.7% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 11.7% Wet Weight Moisture Correction applied (MC)

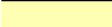



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	antimony { antimony trioxide }				2 mg/kg	1.197	2.114 mg/kg	0.000211 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				10.2 mg/kg	1.32	11.892 mg/kg	0.00119 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2.3 mg/kg	1.142	2.32 mg/kg	0.000232 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				39.9 mg/kg	1.462	51.493 mg/kg	0.00515 %	✓	
		215-160-9	1308-38-9							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
6	copper { dicopper oxide; copper (I) oxide }				30 mg/kg	1.126	29.825 mg/kg	0.00298 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	13 mg/kg	1.56	17.905 mg/kg	0.00115 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				3.8 mg/kg	1.5	5.034 mg/kg	0.000503 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				41.1 mg/kg	2.976	108.013 mg/kg	0.0108 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				1 mg/kg	2.554	2.255 mg/kg	0.000225 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				89 mg/kg	2.774	218.012 mg/kg	0.0218 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							



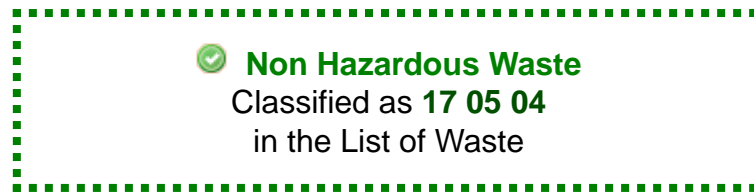
#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.55 pH		8.55 pH	8.55 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				68 mg/kg	1.117	67.039 mg/kg	0.0067 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0564 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS14-17/01/2020-1.70m



Sample details

Sample Name: WS14-17/01/2020-1.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 10.8% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands





Moisture content: 10.8% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	antimony { antimony trioxide }				2	mg/kg	1.197	2.136	mg/kg	0.000214 %	✓	
	051-005-00-X	215-175-0	1309-64-4									
2	arsenic { arsenic trioxide }				8.3	mg/kg	1.32	9.775	mg/kg	0.000978 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium oxide }				2.1	mg/kg	1.142	2.14	mg/kg	0.000214 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
4	chromium in chromium(III) compounds { chromium(III) oxide }				35.8	mg/kg	1.462	46.673	mg/kg	0.00467 %	✓	
		215-160-9	1308-38-9									
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
6	copper { dicopper oxide; copper (I) oxide }				28	mg/kg	1.126	28.12	mg/kg	0.00281 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	15	mg/kg	1.56	20.87	mg/kg	0.00134 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.1	mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	molybdenum { molybdenum(VI) oxide }				4.4	mg/kg	1.5	5.888	mg/kg	0.000589 %	✓	
	042-001-00-9	215-204-7	1313-27-5									
10	nickel { nickel chromate }				35.6	mg/kg	2.976	94.512	mg/kg	0.00945 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				1	mg/kg	2.554	2.278	mg/kg	0.000228 %	✓	
	034-002-00-8											
12	zinc { zinc chromate }				80	mg/kg	2.774	197.963	mg/kg	0.0198 %	✓	
	024-007-00-3											
13	TPH (C6 to C40) petroleum group		TPH		<52	mg/kg		<52	mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									




#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.53 pH		8.53 pH	8.53 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				121 mg/kg	1.117	120.507 mg/kg	0.0121 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.0578 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS14-17/01/2020-2.70m

 **Non Hazardous Waste**
Classified as 17 05 04
in the List of Waste

Sample details

Sample Name: WS14-17/01/2020-2.70m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 8.1% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 8.1% Wet Weight Moisture Correction applied (MC)

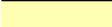



#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	antimony { antimony trioxide }				2	mg/kg	1.197	2.2	mg/kg	0.00022 %	✓	
	051-005-00-X	215-175-0	1309-64-4									
2	arsenic { arsenic trioxide }				10.2	mg/kg	1.32	12.376	mg/kg	0.00124 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium oxide }				2	mg/kg	1.142	2.1	mg/kg	0.00021 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
4	chromium in chromium(III) compounds { chromium(III) oxide }				35.7	mg/kg	1.462	47.951	mg/kg	0.0048 %	✓	
		215-160-9	1308-38-9									
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
6	copper { dicopper oxide; copper (I) oxide }				32	mg/kg	1.126	33.11	mg/kg	0.00331 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	17	mg/kg	1.56	24.369	mg/kg	0.00156 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.1	mg/kg	1.353	<0.135	mg/kg	<0.0000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	molybdenum { molybdenum(VI) oxide }				4.3	mg/kg	1.5	5.928	mg/kg	0.000593 %	✓	
	042-001-00-9	215-204-7	1313-27-5									
10	nickel { nickel chromate }				38.2	mg/kg	2.976	104.484	mg/kg	0.0104 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				3	mg/kg	2.554	7.04	mg/kg	0.000704 %	✓	
	034-002-00-8											
12	zinc { zinc chromate }				91	mg/kg	2.774	231.999	mg/kg	0.0232 %	✓	
	024-007-00-3											
13	TPH (C6 to C40) petroleum group		TPH		<52	mg/kg		<52	mg/kg	<0.0052 %		<LOD
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
15	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
16	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
19	pH				8.42 pH		8.42 pH	8.42 pH		
			PH							
20	naphthalene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
21	acenaphthylene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-917-1	208-96-8							
22	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
23	fluorene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		201-695-5	86-73-7							
24	phenanthrene				0.05 mg/kg		0.046 mg/kg	0.00000459 %	✓	
		201-581-5	85-01-8							
25	anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		204-371-1	120-12-7							
26	fluoranthene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		205-912-4	206-44-0							
27	pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<LOD
		204-927-3	129-00-0							
28	benzo[a]anthracene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				0.03 mg/kg		0.0276 mg/kg	0.00000276 %	✓	
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-893-2	193-39-5							
34	dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
35	benzo[ghi]perylene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-883-8	191-24-2							
36	polychlorobiphenyls; PCB				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	barium { barium oxide }				51 mg/kg	1.117	52.33 mg/kg	0.00523 %	✓	
		215-127-9	1304-28-5							
38	coronene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
		205-881-7	191-07-1							
39	benzo[j]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.057 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Appendix A: Classifier defined and non CLP determinands

• **chromium(III) oxide** (EC Number: 215-160-9, CAS Number: 1308-38-9)

Conversion factor: 1.462

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Repr. 1B H360FD , Skin Sens. 1 H317 , Resp. Sens. 1 H334 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Acute Tox. 4 H302 , Acute Tox. 4 H332

• **TPH (C6 to C40) petroleum group** (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: Aquatic Chronic 2 H411 , Repr. 2 H361d , Carc. 1B H350 , Muta. 1B H340 , STOT RE 2 H373 , Asp. Tox. 1 H304 , Flam. Liq. 3 H226

• **ethylbenzene** (EC Number: 202-849-4, CAS Number: 100-41-4)

CLP index number: 601-023-00-4

Description/Comments:

Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)

Additional Hazard Statement(s): Carc. 2 H351

Reason for additional Hazards Statement(s):

03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2B (77) 2000

• **pH** (CAS Number: PH)

Description/Comments: Appendix C4

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: None.

• **acenaphthylene** (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Acute Tox. 1 H310 , Acute Tox. 1 H330 , Acute Tox. 4 H302

• **acenaphthene** (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Aquatic Chronic 2 H411 , Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319

• **fluorene** (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400

• **phenanthrene** (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Skin Irrit. 2 H315 , Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Skin Sens. 1 H317 , Carc. 2 H351 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Acute Tox. 4 H302

• **anthracene** (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Skin Sens. 1 H317 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319

▪ **fluoranthene** (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 21 Aug 2015
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Acute Tox. 4 H302

▪ **pyrene** (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 21 Aug 2015
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Skin Irrit. 2 H315

▪ **indeno[123-cd]pyrene** (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2 H351

▪ **benzo[ghi]perylene** (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400

▪ **polychlorobiphenyls; PCB** (EC Number: 215-648-1, CAS Number: 1336-36-3)

CLP index number: 602-039-00-4
Description/Comments: Worst Case: IARC considers PCB Group 1; Carcinogenic to humans; POP specific threshold from ATP1 (Regulation 756/2010/EU) to POPs Regulation (Regulation 850/2004/EC). Where applicable, the calculation method laid down in European standards EN 12766-1 and EN 12766-2 shall be applied.
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Hazard Statement(s): Carc. 1A H350
Reason for additional Hazards Statement(s):
29 Sep 2015 - Carc. 1A H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

▪ **barium oxide** (EC Number: 215-127-9, CAS Number: 1304-28-5)

Conversion factor: 1.117
Description/Comments: Data from C&L Inventory Database; No entries in Registered Substances Database, IARC or Pesticide Properties Database
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=88825&HarmOnly=no?fc=true&lang=en>
Data source date: 02 Jun 2014
Hazard Statements: Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Skin Corr. 1A H314 , Acute Tox. 3 H301 , Acute Tox. 4 H302 , Acute Tox. 4 H332

▪ **coronene** (EC Number: 205-881-7, CAS Number: 191-07-1)

Description/Comments: Data from C&L Inventory Database; no entries in Registered Substances or Pesticides Properties databases; SDS: Sigma Aldrich, 1907/2006 compliant, dated 2012 - no entries; IARC – Group 3, not carcinogenic.
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=17010&HarmOnly=no?fc=true&lang=en>
Data source date: 16 Jun 2014
Hazard Statements: STOT SE 2 H371

Appendix B: Rationale for selection of metal species

antimony {antimony trioxide}

Worst case CLP species based on hazard statements/molecular weight and low solubility. Industrial sources include: flame retardants in electrical apparatus, textiles and coatings (edit as required)

arsenic {arsenic trioxide}

Reasonable case CLP species based on hazard statements/molecular weight and most common (stable) oxide of arsenic. Industrial sources include: smelting; main precursor to other arsenic compounds (edit as required)

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history (edit as required)

chromium in chromium(III) compounds {chromium(III) oxide}

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass (edit as required)

chromium in chromium(VI) compounds {chromium(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments (edit as required)

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

molybdenum {molybdenum(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

nickel {nickel chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

selenium {selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case. Pigment cadmium sulphoselenide not likely to be present in this soil. No evidence for the other CLP entries: sodium selenite, nickel II selenite and nickel selenide, to be present in this soil. (edit as required)

zinc {zinc chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

barium {barium oxide}

Cr VI not detected

Appendix C: Version

HazWasteOnline Classification Engine: **WM3 1st Edition v1.1, May 2018**

HazWasteOnline Classification Engine Version: 2020.42.4165.8301 (11 Feb 2020)

HazWasteOnline Database: 2020.42.4165.8301 (11 Feb 2020)

This classification utilises the following guidance and legislation:

- WM3 v1.1 - Waste Classification** - 1st Edition v1.1 - May 2018
- CLP Regulation** - Regulation 1272/2008/EC of 16 December 2008
- 1st ATP** - Regulation 790/2009/EC of 10 August 2009
- 2nd ATP** - Regulation 286/2011/EC of 10 March 2011
- 3rd ATP** - Regulation 618/2012/EU of 10 July 2012
- 4th ATP** - Regulation 487/2013/EU of 8 May 2013
- Correction to 1st ATP** - Regulation 758/2013/EU of 7 August 2013
- 5th ATP** - Regulation 944/2013/EU of 2 October 2013
- 6th ATP** - Regulation 605/2014/EU of 5 June 2014
- WFD Annex III replacement** - Regulation 1357/2014/EU of 18 December 2014
- Revised List of Wastes 2014** - Decision 2014/955/EU of 18 December 2014
- 7th ATP** - Regulation 2015/1221/EU of 24 July 2015
- 8th ATP** - Regulation (EU) 2016/918 of 19 May 2016
- 9th ATP** - Regulation (EU) 2016/1179 of 19 July 2016
- 10th ATP** - Regulation (EU) 2017/776 of 4 May 2017
- HP14 amendment** - Regulation (EU) 2017/997 of 8 June 2017
- 13th ATP** - Regulation (EU) 2018/1480 of 4 October 2018
- POPs Regulation 2004** - Regulation 850/2004/EC of 29 April 2004
- 1st ATP to POPs Regulation** - Regulation 756/2010/EU of 24 August 2010
- 2nd ATP to POPs Regulation** - Regulation 757/2010/EU of 24 August 2010

APPENDIX 8 – WAC Summary Data



Waste Categorisation Summary Table
Sandford Park, January 2020



Sample ID	CBR01	CBR02	CBR03	CBR04	CBR06	CBR07	CBR08	CBR09						
Sample Depth (m)	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70						
Material Description	Clay	Clay	Clay	Clay	Clay	Clay	Clay	Clay						
Sample Date	21/01/2020	21/01/2020	20/01/2020	20/01/2020	21/01/2020	21/01/2020	21/01/2020	21/01/2020						
LoW Code	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04						
Waste Category	Category A	Category A	Category A	Category A	Category A	Category A	Category A	Category A						
Metals														
Antimony	3	3	3	2	3	3	3	3	-	-	HazWaste	<1	mg/kg	
Arsenic	14.6	14.0	18.8	11.3	15.6	17.9	13.4	15.2	-	-	HazWaste	<0.5	mg/kg	
Barium	104	184	144	135	123	331	126	191	-	-	HazWaste	<1	mg/kg	
Cadmium	2.3	3.5	4.2	2.7	2.6	5.2	2.8	3.9	-	-	HazWaste	<0.1	mg/kg	
Chromium	74.6	72.7	71.7	59.4	51.7	70.6	76.3	79.6	-	-	HazWaste	<0.5	mg/kg	
Copper	38	37	57	26	45	32	36	39	-	-	HazWaste	<1	mg/kg	
Lead	30	31	34	24	24	24	34	41	-	-	HazWaste	<5	mg/kg	
Mercury	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	HazWaste	<0.1	mg/kg	
Molybdenum	6.7	6.3	5.5	4.8	5.0	7.5	6.4	7.5	-	-	HazWaste	<0.1	mg/kg	
Nickel	50.3	52.6	88.3	39.4	61.2	73.2	54.6	57.5	-	-	HazWaste	<0.7	mg/kg	
Selenium	3	3	2	2	2	4	<1	3	-	-	HazWaste	<1	mg/kg	
Zinc	157	139	160	102	131	108	133	130	-	-	HazWaste	<5	mg/kg	
Hexavalent Chromium	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	HazWaste	<0.3	mg/kg	
pH (solid sample)	8.43	8.33	8.38	8.50	8.38	8.28	8.49	8.51	-	-	HazWaste	<0.01	pH units	
alkali reserve	-	-	-	-	-	-	-	-	-	-	-	<0.000	gNaOH/100g	
Asbestos														
Asbestos Fibres	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	-	-	-	<0.001	%	
ACM Detected	-	-	-	-	-	-	-	-	-	-	-	-	Presence	
PAHs														
Naphthalene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Acenaphthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	HazWaste	<0.05	mg/kg	
Fluorene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Phenanthrene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Fluoranthene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Pyrene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Benzo(a)anthracene	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	-	-	HazWaste	<0.06	mg/kg	
Chrysene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	-	HazWaste	<0.02	mg/kg	
Benzo(k)fluoranthene	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	-	-	HazWaste	<0.07	mg/kg	
Benzo(a)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Indeno(123cd)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Dibenzo(ah)anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Benzo(ghi)perylene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Coronene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
PAH 6 Total	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	-	-	-	<0.22	mg/kg	
PAH 17 Total	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	100	100	-	<0.64	mg/kg	
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	HazWaste	<0.05	mg/kg	
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	-	HazWaste	<0.02	mg/kg	
Benzo(j)fluoranthene	<1	<1	<1	<1	<1	<1	<1	<1	-	-	HazWaste	<1	mg/kg	
Hydrocarbons														
TPH (C5-40)	<52	<52	<52	<52	<52	<52	<52	<52	-	-	HazWaste	<52	mg/kg	
MTBE	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Benzene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Toluene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Ethylbenzene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
m/p-Xylene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
o-Xylene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Total 7 PCBs	<35	<35	<35	<35	<35	<35	<35	<35	1,000	1,000	HazWaste	<35	ug/kg	
WAC** Solid Sample Summary														
Total Organic Carbon *	0.86	0.80	0.68	0.65	0.65	0.49	0.81	1.01	3	6	-	<0.02	%	
Sum of BTEX	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	6	6	-	<0.025	mg/kg	
Sum of 7 PCBs	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	1	1	-	<0.035	mg/kg	
Mineral Oil	<30	<30	<30	<30	<30	<30	<30	<30	500	500	-	<30	mg/kg	
PAH Sum of 6	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	-	-	-	<0.22	mg/kg	
PAH Sum of 17	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	100	100	-	<0.64	mg/kg	
WAC** Leachate Data														
Arsenic	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.5	1.5	-	<0.025	mg/kg	
Barium	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	20	20	-	<0.03	mg/kg	
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.04	0.04	-	<0.005	mg/kg	
Chromium	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	0.5	0.5	-	<0.015	mg/kg	
Copper	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	2	2	-	<0.07	mg/kg	
Mercury	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0003	0.01	-	<0.0001	mg/kg	
Molybdenum	0.03	0.03	0.03	0.06	<0.02	0.09	0.03	0.04	0.5	1.5	-	<0.02	mg/kg	
Nickel	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.4	0.4	-	<0.02	mg/kg	
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.5	0.5	-	<0.05	mg/kg	
Antimony	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.06	0.18	-	<0.02	mg/kg	
Selenium	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.1	0.3	-	<0.03	mg/kg	
Zinc	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	4	4	-	<0.03	mg/kg	
Total Dissolved Solids	860	870	880	1829	570	510	710	4000	12,000	12,000	-	<350	mg/kg	
Dissolved Organic Carbon	110	30	<20	30	30	30	50	30	500	500	-	<20	mg/kg	
Phenol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1	1	-	<0.1	mg/kg	
Sulphate as SO4	<5	<5	<5	<5	<5	<5	<5	<5	1000	3,000	-	<0.5	mg/kg	
Chloride	<3	<3	<3	<3	<3	<3	<3	<3	800	2,400	-	<3	mg/kg	

NAD- no asbestos detected

* - Integrated Materials Solutions Landfill, Hollywood Great, Nag's Head, The Naul, Co. Dublin

** - limits as specified in Council Decision 2003/33/EC

Waste Categorisation Summary Table
Sandford Park, January 2020



Sample ID	CBR10	WS01	WS01	WS01	WS02	WS02	WS02	WS03						
Sample Depth (m)	0.70	0.70	1.70	2.40	0.70	1.70	2.50	0.70						
Material Description	Clay	Clay	Clay	Clay	Clay	Clay	Clay	Clay						
Sample Date	21/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020						
LoW Code	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04						
Waste Category	Category A	Category A	Category A	Category A	Category A	Category A	Category A	Category A	Inert Criteria	IMS* Criteria	Hazardous Criteria	LOD LOR	Units	
Metals														
Antimony	3	2	2	2	3	2	<1	2	-	-	HazWaste	<1	mg/kg	
Arsenic	17.4	13.9	9.3	7.6	13.6	11.3	8.9	11.3	-	-	HazWaste	<0.5	mg/kg	
Barium	321	97	80	55	201	147	122	74	-	-	HazWaste	<1	mg/kg	
Cadmium	5.1	3.0	2.0	1.4	4.7	2.3	1.1	3.0	-	-	HazWaste	<0.1	mg/kg	
Chromium	70.7	51.2	47.9	33.0	79.6	44.1	57.3	43.6	-	-	HazWaste	<0.5	mg/kg	
Copper	32	46	32	22	31	39	28	39	-	-	HazWaste	<1	mg/kg	
Lead	35	20	15	14	20	17	17	20	-	-	HazWaste	<5	mg/kg	
Mercury	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	HazWaste	<0.1	mg/kg	
Molybdenum	7.3	4.9	5.5	3.4	8.7	6.4	4.2	4.5	-	-	HazWaste	<0.1	mg/kg	
Nickel	69.7	65.1	42.7	27.6	72.8	51.9	42.6	51.0	-	-	HazWaste	<0.7	mg/kg	
Selenium	4	1	2	3	3	2	3	1	-	-	HazWaste	<1	mg/kg	
Zinc	158	114	96	66	114	110	98	95	-	-	HazWaste	<5	mg/kg	
Hexavalent Chromium	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	HazWaste	<0.3	mg/kg	
pH (solid sample)	8.39	8.37	8.52	8.73	8.40	8.47	8.71	8.40	-	-	HazWaste	<0.01	pH units	
alkali reserve	-	-	-	-	-	-	-	-	-	-	-	<0.000	gNaOH/100g	
Asbestos														
Asbestos Fibres	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	-	-	-	<0.001	%	
ACM Detected	-	-	-	-	-	-	-	-	-	-	-	-	Presence	Presence
PAHs														
Naphthalene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Acenaphthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	HazWaste	<0.05	mg/kg	
Fluorene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Phenanthrene	<0.03	0.16	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Anthracene	<0.04	0.06	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Fluoranthene	<0.03	0.25	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Pyrene	<0.03	0.22	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Benzo(a)anthracene	<0.06	0.13	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	-	-	HazWaste	<0.06	mg/kg	
Chrysene	<0.02	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	-	HazWaste	<0.02	mg/kg	
Benzo(k)fluoranthene	<0.07	0.21	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	-	-	HazWaste	<0.07	mg/kg	
Benzo(a)pyrene	<0.04	0.10	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Indeno(123cd)pyrene	<0.04	0.08	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Dibenzo(ah)anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Benzo(ghi)perylene	<0.04	0.08	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Coronene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
PAH 6 Total	<0.22	0.72	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	-	-	-	<0.22	mg/kg	
PAH 17 Total	<0.64	1.40	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	100	100	-	<0.64	mg/kg	
Benzo(b)fluoranthene	<0.05	0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	HazWaste	<0.05	mg/kg	
Benzo(k)fluoranthene	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	-	HazWaste	<0.02	mg/kg	
Benzo(j)fluoranthene	<1	<1	<1	<1	<1	<1	<1	<1	-	-	HazWaste	<1	mg/kg	
Hydrocarbons														
TPH (C5-40)	<52	<52	<52	<52	<52	<52	<52	<52	-	-	HazWaste	<52	mg/kg	
MTBE	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Benzene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Toluene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Ethylbenzene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
m/p-Xylene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
o-Xylene	<5	<5	<5	15	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Total 7 PCBs	<35	<35	<35	<35	<35	<35	<35	<35	1,000	1,000	HazWaste	<35	ug/kg	
WAC** Solid Sample Summary														
Total Organic Carbon *	0.79	0.43	0.35	0.37	0.48	0.40	0.39	0.37	3	6	-	<0.02	%	
Sum of BTEX	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	6	6	-	<0.025	mg/kg	
Sum of 7 PCBs	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	1	1	-	<0.035	mg/kg	
Mineral Oil	<30	<30	<30	<30	<30	<30	<30	<30	500	500	-	<30	mg/kg	
PAH Sum of 6	<0.22	0.72	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	-	-	-	<0.22	mg/kg	
PAH Sum of 17	<0.64	1.40	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	100	100	-	<0.64	mg/kg	
WAC** Leachate Data														
Arsenic	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.5	1.5	-	<0.025	mg/kg	
Barium	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	20	20	-	<0.03	mg/kg	
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.04	0.04	-	<0.005	mg/kg	
Chromium	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	0.5	0.5	-	<0.015	mg/kg	
Copper	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	2	2	-	<0.07	mg/kg	
Mercury	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.01	0.01	-	<0.0001	mg/kg	
Molybdenum	0.04	<0.02	0.08	0.10	0.04	0.09	0.13	<0.02	0.5	1.5	-	<0.02	mg/kg	
Nickel	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.4	0.4	-	<0.02	mg/kg	
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.5	0.5	-	<0.05	mg/kg	
Antimony	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	0.05	0.06	0.18	-	<0.02	mg/kg	
Selenium	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.1	0.3	-	<0.03	mg/kg	
Zinc	<0.03	0.08	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	4	4	-	<0.03	mg/kg	
Total Dissolved Solids	1020	670	1010	<350	670	460	360	530	4000	12,000	-	<350	mg/kg	
Dissolved Organic Carbon	30	<20	<20	<20	30	<20	<20	<20	500	500	-	<20	mg/kg	
Phenol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1	1	-	<0.1	mg/kg	
Sulphate as SO4	<5	<5	6	6	7	<5	14	6	1000	3,000	-	<0.5	mg/kg	
Chloride	<3	<3	<3	<3	<3	<3	<3	<3	800	2,400	-	<3	mg/kg	

NAD- no asbestos detected

* - Integrated Materials Solutions Landfill, Hollywood Great, Nag's Head, The Naul, Co. Dublin

** - limits as specified in Council Decision 2003/33/EC

Waste Categorisation Summary Table
Sandford Park, January 2020



Sample ID	WS03	WS03	WS04	WS04	WS05	WS05	WS06	WS06						
Sample Depth (m)	1.70	2.70	0.70	1.70	0.70	1.70	0.70	1.70						
Material Description	Clay	Clay	Clay	Clay	Clay	Clay	Clay	Clay						
Sample Date	16/01/2020	16/01/2020	17/01/2020	17/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020						
LoW Code	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04						
Waste Category	Category A	Category A	Category A	Category A	Category A	Category A	Category A	Category A						
Metals														
Antimony	2	2	2	2	2	2	3	2	-	-	HazWaste	<1	mg/kg	
Arsenic	11.2	13.7	12.3	10.4	10.6	9.0	15.7	10.3	-	-	HazWaste	<0.5	mg/kg	
Barium	80	110	65	75	77	85	163	105	-	-	HazWaste	<1	mg/kg	
Cadmium	2.3	1.6	2.7	2.1	1.9	2.1	3.6	2.1	-	-	HazWaste	<0.1	mg/kg	
Chromium	52.1	40.9	57.3	36.3	46.4	41.0	50.1	33.4	-	-	HazWaste	<0.5	mg/kg	
Copper	37	23	39	33	33	33	37	33	-	-	HazWaste	<1	mg/kg	
Lead	16	18	18	17	17	15	22	14	-	-	HazWaste	<5	mg/kg	
Mercury	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	HazWaste	<0.1	mg/kg	
Molybdenum	5.1	4.1	4.5	4.6	3.8	5.1	6.0	4.2	-	-	HazWaste	<0.1	mg/kg	
Nickel	58.4	37.1	51.7	47.3	46.6	40.4	65.8	42.2	-	-	HazWaste	<0.7	mg/kg	
Selenium	2	3	1	2	1	1	2	2	-	-	HazWaste	<1	mg/kg	
Zinc	98	77	93	93	85	91	109	86	-	-	HazWaste	<5	mg/kg	
Hexavalent Chromium	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	HazWaste	<0.3	mg/kg	
pH (solid sample)	8.46	8.69	8.30	8.32	8.53	8.48	8.32	8.20	-	-	HazWaste	<0.01	pH units	
alkali reserve	-	-	-	-	-	-	-	-	-	-	-	<0.000	gNaOH/100g	
Asbestos														
Asbestos Fibres	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	-	-	-	<0.001	%	
ACM Detected	-	-	-	-	-	-	-	-	-	-	-	-	Presence	
PAHs														
Naphthalene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Acenaphthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	HazWaste	<0.05	mg/kg	
Fluorene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Phenanthrene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Fluoranthene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Pyrene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Benzo(a)anthracene	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	-	-	HazWaste	<0.06	mg/kg	
Chrysene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	-	HazWaste	<0.02	mg/kg	
Benzo(k)fluoranthene	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	-	-	HazWaste	<0.07	mg/kg	
Benzo(a)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Indeno(123cd)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Dibenzo(ah)anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Benzo(ghi)perylene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Coronene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
PAH 6 Total	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	-	-	-	<0.22	mg/kg	
PAH 17 Total	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	100	100	-	<0.64	mg/kg	
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	HazWaste	<0.05	mg/kg	
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	-	HazWaste	<0.02	mg/kg	
Benzo(j)fluoranthene	<1	<1	<1	<1	<1	<1	<1	<1	-	-	HazWaste	<1	mg/kg	
Hydrocarbons														
TPH (C5-40)	<52	<52	<52	<52	<52	<52	<52	<52	-	-	HazWaste	<52	mg/kg	
MTBE	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Benzene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Toluene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Ethylbenzene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
m/p-Xylene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
o-Xylene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Total 7 PCBs	<35	<35	<35	<35	<35	<35	<35	<35	1,000	1,000	HazWaste	<35	ug/kg	
WAC** Solid Sample Summary														
Total Organic Carbon *	0.33	0.49	0.37	0.38	0.38	0.40	0.55	0.37	3	6	-	<0.02	%	
Sum of BTEX	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	6	6	-	<0.025	mg/kg	
Sum of 7 PCBs	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	1	1	-	<0.035	mg/kg	
Mineral Oil	<30	<30	<30	<30	<30	<30	<30	<30	500	500	-	<30	mg/kg	
PAH Sum of 6	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	-	-	-	<0.22	mg/kg	
PAH Sum of 17	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	100	100	-	<0.64	mg/kg	
WAC** Leachate Data														
Arsenic	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.5	1.5	-	<0.025	mg/kg	
Barium	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	20	20	-	<0.03	mg/kg	
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.04	0.04	-	<0.005	mg/kg	
Chromium	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	0.5	0.5	-	<0.015	mg/kg	
Copper	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	2	2	-	<0.07	mg/kg	
Mercury	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.01	0.01	-	<0.0001	mg/kg	
Molybdenum	0.05	0.19	<0.02	0.10	0.04	0.11	0.04	0.13	0.5	1.5	-	<0.02	mg/kg	
Nickel	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.4	0.4	-	<0.02	mg/kg	
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.5	0.5	-	<0.05	mg/kg	
Antimony	0.05	0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	0.06	0.18	-	<0.02	mg/kg	
Selenium	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.1	0.3	-	<0.03	mg/kg	
Zinc	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	4	4	-	<0.03	mg/kg	
Total Dissolved Solids	460	510	1460	1861	560	1650	910	610	4000	12,000	-	<350	mg/kg	
Dissolved Organic Carbon	<20	<20	<20	<20	<20	<20	<20	<20	500	500	-	<20	mg/kg	
Phenol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1	1	-	<0.1	mg/kg	
Sulphate as SO4	11	8	106	19	<5	<5	<5	<5	1000	3,000	-	<0.5	mg/kg	
Chloride	<3	<3	<3	<3	<3	<3	<3	<3	800	2,400	-	<3	mg/kg	

NAD- no asbestos detected

* - Integrated Materials Solutions Landfill, Hollywood Great, Nag's Head, The Naul, Co. Dublin

** - limits as specified in Council Decision 2003/33/EC

Waste Categorisation Summary Table
Sandford Park, January 2020



Sample ID	WS07	WS07	WS07	WS08	WS08	WS08	WS09	WS09						
Sample Depth (m)	0.70	1.70	2.60	0.70	1.70	2.60	0.70	1.70						
Material Description	Clay	Clay	Clay	Clay	Clay	Clay	Clay	Clay						
Sample Date	16/01/2020	16/01/2020	16/01/2020	17/01/2020	17/01/2020	17/01/2020	16/01/2020	16/01/2020						
LoW Code	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04						
Waste Category	Category A	Category A	Category A	Category A	Category A	Category B2	Category A	Category A	Inert Criteria	IMS* Criteria	Hazardous Criteria	LOD LOR	Units	
Metals														
Antimony	2	2	2	2	2	2	2	2	-	-	HazWaste	<1	mg/kg	
Arsenic	9.1	10.8	10.1	6.9	7.6	10.9	8.1	9.4	-	-	HazWaste	<0.5	mg/kg	
Barium	60	105	102	65	94	42	312	87	-	-	HazWaste	<1	mg/kg	
Cadmium	2.4	2.5	1.9	1.2	1.7	2.4	1.9	2.1	-	-	HazWaste	<0.1	mg/kg	
Chromium	52.6	44.6	40.6	50.2	42.5	39.2	37.6	47.1	-	-	HazWaste	<0.5	mg/kg	
Copper	31	37	28	20	26	32	30	33	-	-	HazWaste	<1	mg/kg	
Lead	15	16	17	11	14	17	14	16	-	-	HazWaste	<5	mg/kg	
Mercury	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	HazWaste	<0.1	mg/kg	
Molybdenum	4.0	5.5	5.3	3.5	4.9	5.2	3.5	4.7	-	-	HazWaste	<0.1	mg/kg	
Nickel	39.3	46.8	42.5	29.6	35.2	40.0	35.5	43.0	-	-	HazWaste	<0.7	mg/kg	
Selenium	1	1	4	1	1	3	1	2	-	-	HazWaste	<1	mg/kg	
Zinc	79	93	87	80	76	96	62	94	-	-	HazWaste	<5	mg/kg	
Hexavalent Chromium	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	HazWaste	<0.3	mg/kg	
pH (solid sample)	8.32	8.45	8.68	8.30	8.44	8.33	8.55	8.60	-	-	HazWaste	<0.01	pH units	
alkali reserve	-	-	-	-	-	-	-	-	-	-	-	<0.000	gNaOH/100g	
Asbestos														
Asbestos Fibres	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	-	-	-	<0.001	%	
ACM Detected	-	-	-	-	-	-	-	-	-	-	-	-	Presence	
PAHs														
Naphthalene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Acenaphthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	HazWaste	<0.05	mg/kg	
Fluorene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Phenanthrene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Fluoranthene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Pyrene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Benzo(a)anthracene	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	-	-	HazWaste	<0.06	mg/kg	
Chrysene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	-	HazWaste	<0.02	mg/kg	
Benzo(k)fluoranthene	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	-	-	HazWaste	<0.07	mg/kg	
Benzo(a)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Indeno(123cd)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Dibenzo(ah)anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Benzo(ghi)perylene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Coronene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
PAH 6 Total	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	-	-	-	<0.22	mg/kg	
PAH 17 Total	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	100	100	-	<0.64	mg/kg	
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	HazWaste	<0.05	mg/kg	
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	-	HazWaste	<0.02	mg/kg	
Benzo(j)fluoranthene	<1	<1	<1	<1	<1	<1	<1	<1	-	-	HazWaste	<1	mg/kg	
Hydrocarbons														
TPH (C5-40)	<52	<52	<52	<52	<52	<52	<52	<52	-	-	HazWaste	<52	mg/kg	
MTBE	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Benzene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Toluene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Ethylbenzene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
m/p-Xylene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
o-Xylene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Total 7 PCBs	<35	<35	<35	<35	<35	<35	<35	<35	1,000	1,000	HazWaste	<35	ug/kg	
WAC** Solid Sample Summary														
Total Organic Carbon *	0.32	0.41	0.61	0.44	0.36	0.69	0.38	0.40	3	6	-	<0.02	%	
Sum of BTEX	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	6	6	-	<0.025	mg/kg	
Sum of 7 PCBs	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	1	1	-	<0.035	mg/kg	
Mineral Oil	<30	<30	<30	<30	<30	<30	<30	<30	500	500	-	<30	mg/kg	
PAH Sum of 6	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	-	-	-	<0.22	mg/kg	
PAH Sum of 17	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	100	100	-	<0.64	mg/kg	
WAC** Leachate Data														
Arsenic	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.5	1.5	-	<0.025	mg/kg	
Barium	<0.03	<0.03	<0.03	0.09	<0.03	0.05	<0.03	<0.03	20	20	-	<0.03	mg/kg	
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.04	0.04	-	<0.005	mg/kg	
Chromium	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	0.5	0.5	-	<0.015	mg/kg	
Copper	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	2	2	-	<0.07	mg/kg	
Mercury	<0.0001	<0.0001	<0.0001	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	0.01	0.01	-	<0.0001	mg/kg	
Molybdenum	0.03	0.09	0.22	0.20	0.15	0.30	0.04	0.13	0.5	1.5	-	<0.02	mg/kg	
Nickel	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.4	0.4	-	<0.02	mg/kg	
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.5	0.5	-	<0.05	mg/kg	
Antimony	<0.02	<0.02	0.02	<0.02	<0.02	0.02	<0.02	<0.02	0.06	0.18	-	<0.02	mg/kg	
Selenium	<0.03	<0.03	<0.03	<0.03	<0.03	0.23	<0.03	<0.03	0.1	0.3	-	<0.03	mg/kg	
Zinc	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	<0.03	4	4	-	<0.03	mg/kg	
Total Dissolved Solids	510	830	1030	630	730	690	730	580	4000	12,000	-	<350	mg/kg	
Dissolved Organic Carbon	<20	<20	<20	<20	<20	<20	<20	<20	500	500	-	<20	mg/kg	
Phenol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1	1	-	<0.1	mg/kg	
Sulphate as SO4	<5	<5	8	9	10	187	7	6	1000	3,000	-	<0.5	mg/kg	
Chloride	<3	<3	<3	<3	<3	53	4	<3	800	2,400	-	<3	mg/kg	

NAD- no asbestos detected

* - Integrated Materials Solutions Landfill, Hollywood Great, Nag's Head, The Naul, Co. Dublin

** - limits as specified in Council Decision 2003/33/EC

Waste Categorisation Summary Table
Sandford Park, January 2020



Sample ID	WS09	WS10	WS10	WS10	WS11	WS11	WS11	WS12						
Sample Depth (m)	2.60	0.70	1.70	2.30	0.70	1.70	2.20	0.70						
Material Description	Clay	Clay	Clay	Clay	Clay	Clay	Clay	Clay						
Sample Date	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	16/01/2020	17/01/2020						
LoW Code	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04						
Waste Category	Category A	Category A	Category A	Category A	Category A	Category A	Category A	Category A						
Metals														
Antimony	2	2	2	2	2	2	2	2	-	-	HazWaste	<1	mg/kg	
Arsenic	11.6	13.3	11.3	11.0	11.5	10.6	10.2	12.3	-	-	HazWaste	<0.5	mg/kg	
Barium	64	69	63	63	113	65	92	80	-	-	HazWaste	<1	mg/kg	
Cadmium	1.9	2.5	2.1	2.0	2.6	2.9	2.0	1.4	-	-	HazWaste	<0.1	mg/kg	
Chromium	38.2	42.2	42.8	36.7	39.3	37.5	50.8	64.0	-	-	HazWaste	<0.5	mg/kg	
Copper	32	40	31	30	36	32	32	30	-	-	HazWaste	<1	mg/kg	
Lead	18	17	19	17	16	16	18	25	-	-	HazWaste	<5	mg/kg	
Mercury	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	HazWaste	<0.1	mg/kg	
Molybdenum	4.9	4.6	4.7	4.4	4.0	4.0	5.1	4.3	-	-	HazWaste	<0.1	mg/kg	
Nickel	41.2	51.0	39.2	39.7	47.4	37.9	44.7	34.1	-	-	HazWaste	<0.7	mg/kg	
Selenium	5	1	<1	2	1	<1	1	1	-	-	HazWaste	<1	mg/kg	
Zinc	103	101	90	86	83	103	91	164	-	-	HazWaste	<5	mg/kg	
Hexavalent Chromium	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	HazWaste	<0.3	mg/kg	
pH (solid sample)	8.65	8.48	8.56	8.66	8.60	8.57	8.65	8.29	-	-	HazWaste	<0.01	pH units	
alkali reserve	-	-	-	-	-	-	-	-	-	-	-	<0.000	gNaOH/100g	
Asbestos														
Asbestos Fibres	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	-	-	0.1	<0.001	%	
ACM Detected	-	-	-	-	-	-	-	-	-	-	-	-	Presence	
PAHs														
Naphthalene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Acenaphthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	HazWaste	<0.05	mg/kg	
Fluorene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Phenanthrene	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Fluoranthene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Pyrene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Benzo(a)anthracene	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	-	-	HazWaste	<0.06	mg/kg	
Chrysene	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	-	HazWaste	<0.02	mg/kg	
Benzo(k)fluoranthene	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	-	-	HazWaste	<0.07	mg/kg	
Benzo(a)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Indeno(123cd)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Dibenzo(ah)anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Benzo(ghi)perylene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Coronene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
PAH 6 Total	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	-	-	-	<0.22	mg/kg	
PAH 17 Total	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	100	100	-	<0.64	mg/kg	
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	HazWaste	<0.05	mg/kg	
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	-	HazWaste	<0.02	mg/kg	
Benzo(j)fluoranthene	<1	<1	<1	<1	<1	<1	<1	<1	-	-	HazWaste	<1	mg/kg	
Hydrocarbons														
TPH (C5-40)	<52	<52	<52	<52	<52	<52	<52	<52	-	-	HazWaste	<52	mg/kg	
MTBE	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Benzene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Toluene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Ethylbenzene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
m/p-Xylene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
o-Xylene	<5	<5	<5	58	<5	<5	26	<5	-	-	HazWaste	<5	ug/kg	
Total 7 PCBs	<35	<35	<35	<35	<35	<35	<35	<35	1,000	1,000	HazWaste	<35	ug/kg	
WAC** Solid Sample Summary														
Total Organic Carbon *	0.69	0.37	0.37	0.49	0.39	0.36	0.30	1.06	3	6	-	<0.02	%	
Sum of BTEX	<0.025	<0.025	<0.025	0.058	<0.025	<0.025	0.026	<0.025	6	6	-	<0.025	mg/kg	
Sum of 7 PCBs	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	1	1	-	<0.035	mg/kg	
Mineral Oil	<30	<30	<30	<30	<30	<30	<30	<30	500	500	-	<30	mg/kg	
PAH Sum of 6	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	-	-	-	<0.22	mg/kg	
PAH Sum of 17	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	100	100	-	<0.64	mg/kg	
WAC** Leachate Data														
Arsenic	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.5	1.5	-	<0.025	mg/kg	
Barium	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	20	20	-	<0.03	mg/kg	
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.04	0.04	-	<0.005	mg/kg	
Chromium	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	0.5	0.5	-	<0.015	mg/kg	
Copper	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	2	2	-	<0.07	mg/kg	
Mercury	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.01	0.01	-	<0.0001	mg/kg	
Molybdenum	0.27	0.05	0.13	0.15	0.05	0.14	0.15	<0.02	0.5	1.5	-	<0.02	mg/kg	
Nickel	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.4	0.4	-	<0.02	mg/kg	
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.5	0.5	-	<0.05	mg/kg	
Antimony	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	0.06	0.18	-	<0.02	mg/kg	
Selenium	0.06	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.1	0.3	-	<0.03	mg/kg	
Zinc	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	4	4	-	<0.03	mg/kg	
Total Dissolved Solids	550	660	880	580	1151	550	480	<350	4000	12,000	-	<350	mg/kg	
Dissolved Organic Carbon	<20	<20	<20	<20	<20	<20	<20	<20	100	500	500	<20	mg/kg	
Phenol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1	1	-	<0.1	mg/kg	
Sulphate as SO4	14	<5	6	6	<5	<5	<5	10	1000	3,000	-	<0.5	mg/kg	
Chloride	<3	<3	<3	<3	<3	<3	<3	<3	800	2,400	-	<3	mg/kg	

NAD- no asbestos detected

* - Integrated Materials Solutions Landfill, Hollywood Great, Nag's Head, The Naul, Co. Dublin

** - limits as specified in Council Decision 2003/33/EC

Waste Categorisation Summary Table
Sandford Park, January - March 2020



Sample ID	WS12	WS12	WS13	WS13	WS14	WS14	WS14	BH03						
Sample Depth (m)	1.70	2.50	0.70	1.40	0.70	1.70	2.70	3.00						
Material Description	Clay	Clay	Clay	Clay	Clay	Clay	Clay	Clay						
Sample Date	17/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020	17/01/2020	26/03/2020						
LoW Code	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04						
Waste Category	Category A	Category A	Category A	Category A	Category A	Category A	Category C	Category B2	Inert Criteria	IMS* Criteria	Hazardous Criteria	LOD LOR	Units	
Metals														
Antimony	2	2	2	2	2	2	2	1	-	-	HazWaste	<1	mg/kg	
Arsenic	9.4	10.1	10.4	9.8	10.2	8.3	10.2	6.2	-	-	HazWaste	<0.5	mg/kg	
Barium	88	130	71	64	68	121	51	48	-	-	HazWaste	<1	mg/kg	
Cadmium	1.9	1.8	2.3	1.9	2.3	2.1	2.0	1.2	-	-	HazWaste	<0.1	mg/kg	
Chromium	40.2	37.4	40.5	34.4	39.9	35.8	35.7	40.0	-	-	HazWaste	<0.5	mg/kg	
Copper	29	31	31	33	30	28	32	19	-	-	HazWaste	<1	mg/kg	
Lead	16	18	14	15	13	15	17	14	-	-	HazWaste	<5	mg/kg	
Mercury	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	HazWaste	<0.1	mg/kg	
Molybdenum	4.4	4.5	3.5	4.0	3.8	4.4	4.3	3.5	-	-	HazWaste	<0.1	mg/kg	
Nickel	41.1	39.3	40.5	41.7	41.1	35.6	38.2	23.7	-	-	HazWaste	<0.7	mg/kg	
Selenium	<1	3	<1	<1	1	1	3	2	-	-	HazWaste	<1	mg/kg	
Zinc	89	86	83	89	89	80	91	54	-	-	HazWaste	<5	mg/kg	
Hexavalent Chromium	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	HazWaste	<0.3	mg/kg	
pH (solid sample)	8.43	8.67	8.58	8.62	8.55	8.53	8.42	8.13	-	-	HazWaste	<0.01	pH units	
alkali reserve	-	-	-	-	-	-	-	-	-	-	-	<0.000	gNaOH/100g	
Asbestos														
Asbestos Fibres	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	-	-	0.1	<0.001	%	
ACM Detected	-	-	-	-	-	-	-	-	-	-	-	-	Presence	
PAHs														
Naphthalene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Acenaphthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	HazWaste	<0.05	mg/kg	
Fluorene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Phenanthrene	<0.03	0.06	<0.03	<0.03	<0.03	<0.03	0.05	<0.03	-	-	HazWaste	<0.03	mg/kg	
Anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Fluoranthene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Pyrene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Benzo(a)anthracene	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	-	-	HazWaste	<0.06	mg/kg	
Chrysene	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	-	-	HazWaste	<0.02	mg/kg	
Benzo(k)fluoranthene	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	-	-	HazWaste	<0.07	mg/kg	
Benzo(a)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Indeno(123cd)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Dibenzo(ah)anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Benzo(ghi)perylene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Coronene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
PAH 6 Total	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	-	-	-	<0.22	mg/kg	
PAH 17 Total	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	100	100	-	<0.64	mg/kg	
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	HazWaste	<0.05	mg/kg	
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	-	HazWaste	<0.02	mg/kg	
Benzo(j)fluoranthene	<1	<1	<1	<1	<1	<1	<1	<1	-	-	HazWaste	<1	mg/kg	
Hydrocarbons														
TPH (C5-40)	<52	<52	<52	<52	<52	<52	<52	<52	-	-	HazWaste	<52	mg/kg	
MTBE	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Benzene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Toluene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Ethylbenzene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
m/p-Xylene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
o-Xylene	<5	<5	<5	15	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Total 7 PCBs	<35	<35	<35	<35	<35	<35	<35	<35	1,000	1,000	HazWaste	<35	ug/kg	
WAC** Solid Sample Summary														
Total Organic Carbon *	0.35	0.66	0.32	0.37	0.36	0.34	0.69	0.54	3	6	-	<0.02	%	
Sum of BTEX	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	6	6	-	<0.025	mg/kg	
Sum of 7 PCBs	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	1	1	-	<0.035	mg/kg	
Mineral Oil	<30	<30	<30	<30	<30	<30	<30	<30	500	500	-	<30	mg/kg	
PAH Sum of 6	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	-	-	-	<0.22	mg/kg	
PAH Sum of 17	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	100	100	-	<0.64	mg/kg	
WAC** Leachate Data														
Arsenic	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.5	1.5	-	<0.025	mg/kg	
Barium	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.19	20	20	-	<0.03	mg/kg	
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.04	0.04	-	<0.005	mg/kg	
Chromium	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	0.5	0.5	-	<0.015	mg/kg	
Copper	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	2	2	-	<0.07	mg/kg	
Mercury	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.01	0.01	-	<0.0001	mg/kg	
Molybdenum	0.14	0.20	0.03	0.07	0.04	0.11	0.27	0.22	0.5	1.5	-	<0.02	mg/kg	
Nickel	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.4	0.4	-	<0.02	mg/kg	
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.5	0.5	-	<0.05	mg/kg	
Antimony	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.06	0.18	-	<0.02	mg/kg	
Selenium	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.45	0.21	0.1	0.3	-	<0.03	mg/kg	
Zinc	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.04	4	4	-	<0.03	mg/kg	
Total Dissolved Solids	580	1300	1190	820	710	403	420	1140	4000	12,000	-	<350	mg/kg	
Dissolved Organic Carbon	<20	<20	<20	<20	<20	<20	<20	<20	500	500	-	<20	mg/kg	
Phenol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1	1	-	<0.1	mg/kg	
Sulphate as SO4	6	13	5	<5	<5	6	17	328	1000	3,000	-	<0.5	mg/kg	
Chloride	<3	<3	<3	<3	<3	<3	<3	110	800	2,400	-	<3	mg/kg	

NAD- no asbestos detected

* - Integrated Materials Solutions Landfill, Hollywood Great, Nag's Head, The Naul, Co. Dublin

** - limits as specified in Council Decision 2003/33/EC

Waste Categorisation Summary Table
Sandford Park, January - March 2020



Sample ID	BH04	BH05	BH06	BH07	BH08	BH09	BH10	BH11						
Sample Depth (m)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0						
Material Description	Clay	Clay	Clay	Clay	Clay	Clay	Clay	Clay						
Sample Date	26/03/2020	26/03/2020	26/03/2020	26/03/2020	27/03/2020	27/03/2020	27/03/2020	27/03/2020						
LoW Code	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04	17 05 04						
Waste Category	Category B2	Category A	Category B2	Category B2	Category C	Category C	Category B2	Category C						
Metals														
Antimony	2	2	2	1	2	2	2	2	-	-	HazWaste	<1	mg/kg	
Arsenic	8.8	6.8	10.3	5.2	9.5	10.6	10.0	10.6	-	-	HazWaste	<0.5	mg/kg	
Barium	59	56	84	39	90	76	75	76	-	-	HazWaste	<1	mg/kg	
Cadmium	1.8	1.6	2.0	1.0	2.0	2.3	1.8	2.4	-	-	HazWaste	<0.1	mg/kg	
Chromium	47.4	41.8	44.4	28.8	43.9	43.2	42.5	52.4	-	-	HazWaste	<0.5	mg/kg	
Copper	27	26	33	18	32	28	33	35	-	-	HazWaste	<1	mg/kg	
Lead	48	15	18	12	20	17	18	19	-	-	HazWaste	<5	mg/kg	
Mercury	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	HazWaste	<0.1	mg/kg	
Molybdenum	3.7	3.6	4.1	2.5	3.7	5.0	4.0	4.3	-	-	HazWaste	<0.1	mg/kg	
Nickel	33.7	33.5	40.2	22.0	38.7	35.6	39.0	38.6	-	-	HazWaste	<0.7	mg/kg	
Selenium	3	2	3	2	2	3	4	3	-	-	HazWaste	<1	mg/kg	
Zinc	73	71	89	50	84	89	83	130	-	-	HazWaste	<5	mg/kg	
Hexavalent Chromium	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	HazWaste	<0.3	mg/kg	
pH (solid sample)	8.24	8.02	8.23	8.25	8.20	8.44	8.51	8.29	-	-	HazWaste	<0.01	pH units	
alkali reserve	-	-	-	-	-	-	-	-	-	-	-	<0.000	gNaOH/100g	
Asbestos														
Asbestos Fibres	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	-	-	0.1	<0.001	%	
ACM Detected	-	-	-	-	-	-	-	-	-	-	-	-	Presence	
PAHs														
Naphthalene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Acenaphthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	HazWaste	<0.05	mg/kg	
Fluorene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Phenanthrene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Fluoranthene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Pyrene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	HazWaste	<0.03	mg/kg	
Benzo(a)anthracene	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	-	-	HazWaste	<0.06	mg/kg	
Chrysene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	-	HazWaste	<0.02	mg/kg	
Benzo(k)fluoranthene	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	-	-	HazWaste	<0.07	mg/kg	
Benzo(a)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Indeno(123cd)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Dibenzo(ah)anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Benzo(ghi)perylene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
Coronene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	-	HazWaste	<0.04	mg/kg	
PAH 6 Total	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	-	-	-	<0.22	mg/kg	
PAH 17 Total	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	100	100	-	<0.64	mg/kg	
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	HazWaste	<0.05	mg/kg	
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	-	HazWaste	<0.02	mg/kg	
Benzo(j)fluoranthene	<1	<1	<1	<1	<1	<1	<1	<1	-	-	HazWaste	<1	mg/kg	
Hydrocarbons														
TPH (C5-40)	<52	<52	<52	<52	<52	<52	<52	<52	-	-	HazWaste	<52	mg/kg	
MTBE	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Benzene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Toluene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
Ethylbenzene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
m/p-Xylene	<5	<5	<5	<5	<5	<5	<5	<5	-	-	HazWaste	<5	ug/kg	
o-Xylene	<5	<5	<5	58	<5	<5	26	<5	-	-	HazWaste	<5	ug/kg	
Total 7 PCBs	<35	<35	<35	<35	<35	<35	<35	<35	1,000	1,000	HazWaste	<35	ug/kg	
WAC** Solid Sample Summary														
Total Organic Carbon *	0.57	0.63	0.67	0.71	0.63	0.63	0.68	0.66	3	6	-	<0.02	%	
Sum of BTEX	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	6	6	-	<0.025	mg/kg	
Sum of 7 PCBs	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	1	1	-	<0.035	mg/kg	
Mineral Oil	<30	<30	<30	<30	<30	<30	<30	<30	500	500	-	<30	mg/kg	
PAH Sum of 6	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	-	-	-	<0.22	mg/kg	
PAH Sum of 17	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	100	100	-	<0.64	mg/kg	
WAC** Leachate Data														
Arsenic	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.5	1.5	-	<0.025	mg/kg	
Barium	0.29	0.24	0.24	0.29	0.37	0.33	0.06	0.23	20	20	-	<0.03	mg/kg	
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.04	0.04	-	<0.005	mg/kg	
Chromium	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	0.5	0.5	-	<0.015	mg/kg	
Copper	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	2	2	-	<0.07	mg/kg	
Mercury	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	0.01	0.01	-	<0.0001	mg/kg	
Molybdenum	0.21	0.21	0.26	0.19	0.22	0.22	0.25	0.28	0.5	1.5	-	<0.02	mg/kg	
Nickel	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.4	0.4	-	<0.02	mg/kg	
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.5	0.5	-	<0.05	mg/kg	
Antimony	0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	0.06	0.18	-	<0.02	mg/kg	
Selenium	0.21	<0.03	0.27	0.28	0.39	0.34	0.15	0.30	0.1	0.3	-	<0.03	mg/kg	
Zinc	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	4	4	-	<0.03	mg/kg	
Total Dissolved Solids	1461	1719	1780	1310	1090	990	560	1230	4000	12,000	-	<350	mg/kg	
Dissolved Organic Carbon	<20	<20	<20	20	<20	20	<20	30	500	500	-	<20	mg/kg	
Phenol	<3	4	4	<3	4	4	<3	4	1	1	-	<0.1	mg/kg	
Sulphate as SO4	355	747	471	326	412	257	70	342	1000	3,000	-	<0.5	mg/kg	
Chloride	119	<3	184	127	148	112	16	113	800	2,400	-	<3	mg/kg	

NAD- no asbestos detected

* - Integrated Materials Solutions Landfill, Hollywood Great, Nag's Head, The Naul, Co. Dublin

** - limits as specified in Council Decision 2003/33/EC

Waste Categorisation Summary Table
Sandford Park, January - March 2020

Sample ID	BH12
Sample Depth (m)	3.0
Material Description	Clay
Sample Date	27/03/2020
LoW Code	17 05 04
Waste Category	Category A
Metals	
Antimony	2
Arsenic	10.2
Barium	78
Cadmium	1.8
Chromium	39.3
Copper	32
Lead	17
Mercury	<0.1
Molybdenum	3.8
Nickel	36.3
Selenium	6
Zinc	67
Hexavalent Chromium	<0.3
pH (solid sample)	8.68
alkali reserve	-
Asbestos	
Asbestos Fibres	NAD
ACM Detected	-
PAHs	
Naphthalene	<0.04
Acenaphthylene	<0.03
Acenaphthene	<0.05
Fluorene	<0.04
Phenanthrene	<0.03
Anthracene	<0.04
Fluoranthene	<0.03
Pyrene	<0.03
Benzo(a)anthracene	<0.06
Chrysene	<0.02
Benzo(b)fluoranthene	<0.07
Benzo(a)pyrene	<0.04
Indeno(123cd)pyrene	<0.04
Dibenzo(ah)anthracene	<0.04
Benzo(ghi)perylene	<0.04
Coronene	<0.04
PAH 6 Total	<0.22
PAH 17 Total	<0.64
Benzo(b)fluoranthene	<0.05
Benzo(k)fluoranthene	<0.02
Benzo(j)fluoranthene	<1
Hydrocarbons	
TPH (C5-40)	<52
MTBE	<5
Benzene	<5
Toluene	<5
Ethylbenzene	<5
m/p-Xylene	<5
o-Xylene	<5
Total 7 PCBs	<35
WAC** Solid Sample Summary	
Total Organic Carbon *	0.98
Sum of BTEX	<0.025
Sum of 7 PCBs	<0.035
Mineral Oil	<30
PAH Sum of 6	<0.22
PAH Sum of 17	<0.64
WAC** Leachate Data	
Arsenic	<0.025
Barium	<0.03
Cadmium	<0.005
Chromium	<0.015
Copper	<0.07
Mercury	<0.0001
Molybdenum	0.21
Nickel	<0.02
Lead	<0.05
Antimony	<0.02
Selenium	<0.03
Zinc	<0.03
Total Dissolved Solids	360
Dissolved Organic Carbon	30
Phenol	<0.1
Sulphate as SO4	20
Chloride	<3

NAD- no asbestos detected

* - Integrated Materials Solutions Landfill, Hollywood Great, Nag's Head, The Naul, Co. Dublin

** - limits as specified in Council Decision 2003/33/EC



Inert Criteria	IMS* Criteria	Hazardous Criteria	LOD LOR	Units
-	-	HazWaste	<1	mg/kg
-	-	HazWaste	<0.5	mg/kg
-	-	HazWaste	<1	mg/kg
-	-	HazWaste	<0.1	mg/kg
-	-	HazWaste	<0.5	mg/kg
-	-	HazWaste	<1	mg/kg
-	-	HazWaste	<5	mg/kg
-	-	HazWaste	<0.1	mg/kg
-	-	HazWaste	<0.1	mg/kg
-	-	HazWaste	<0.7	mg/kg
-	-	HazWaste	<1	mg/kg
-	-	HazWaste	<5	mg/kg
-	-	HazWaste	<0.3	mg/kg
-	-	HazWaste	<0.01	pH units
-	-	-	<0.000	gNaOH/100g
-	-	-	-	-
-	-	0.1	<0.001	%
-	-	-	Presence	Presence
-	-	-	-	-
-	-	HazWaste	<0.04	mg/kg
-	-	HazWaste	<0.03	mg/kg
-	-	HazWaste	<0.05	mg/kg
-	-	HazWaste	<0.04	mg/kg
-	-	HazWaste	<0.03	mg/kg
-	-	HazWaste	<0.04	mg/kg
-	-	HazWaste	<0.03	mg/kg
-	-	HazWaste	<0.03	mg/kg
-	-	HazWaste	<0.06	mg/kg
-	-	HazWaste	<0.02	mg/kg
-	-	HazWaste	<0.07	mg/kg
-	-	HazWaste	<0.04	mg/kg
-	-	HazWaste	<0.04	mg/kg
-	-	HazWaste	<0.04	mg/kg
-	-	HazWaste	<0.04	mg/kg
-	-	-	<0.22	mg/kg
100	100	-	<0.64	mg/kg
-	-	HazWaste	<0.05	mg/kg
-	-	HazWaste	<0.02	mg/kg
-	-	HazWaste	<1	mg/kg
-	-	-	-	-
-	-	HazWaste	<52	mg/kg
-	-	HazWaste	<5	ug/kg
-	-	HazWaste	<5	ug/kg
-	-	HazWaste	<5	ug/kg
-	-	HazWaste	<5	ug/kg
-	-	HazWaste	<5	ug/kg
-	-	HazWaste	<5	ug/kg
1,000	1,000	HazWaste	<35	ug/kg
-	-	-	-	-
3	6	-	<0.02	%
6	6	-	<0.025	mg/kg
1	1	-	<0.035	mg/kg
500	500	-	<30	mg/kg
-	-	-	<0.22	mg/kg
100	100	-	<0.64	mg/kg
-	-	-	-	-
0.5	1.5	-	<0.025	mg/kg
20	20	-	<0.03	mg/kg
0.04	0.04	-	<0.005	mg/kg
0.5	0.5	-	<0.015	mg/kg
2	2	-	<0.07	mg/kg
0.01	0.01	-	<0.0001	mg/kg
0.5	1.5	-	<0.02	mg/kg
0.4	0.4	-	<0.02	mg/kg
0.5	0.5	-	<0.05	mg/kg
0.06	0.18	-	<0.02	mg/kg
0.1	0.3	-	<0.03	mg/kg
4	4	-	<0.03	mg/kg
4000	12,000	-	<350	mg/kg
500	500	-	<20	mg/kg
1	1	-	<0.1	mg/kg
1000	3,000	-	<0.5	mg/kg
800	2,400	-	<3	mg/kg

APPENDIX 9 – Suitable 4 Waste Data



S4UL - Metals (Residential with homegrown produce), Sandford Park, January 2020

Sample ID	CBR01	CBR02	CBR03	CBR04	CBR06	CBR07	CBR08	CBR09	CBR10	WS01	Max Level Detected	Units	Residential with homegrown produce
Sample Depth (m)	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7			
Antimony	3	3	3	2	3	3	3	3	3	2	3	mg/kg	ne
Arsenic	14.6	14	18.8	11.3	15.6	17.9	13.4	15.2	17.4	13.9	18.8	mg/kg	37
Barium	104	184	144	135	123	331	126	191	321	97	331	mg/kg	ne
Cadmium	2.3	3.5	4.2	2.7	2.6	5.2	2.8	3.9	5.1	3	5.2	mg/kg	11
Chromium	74.6	72.7	71.7	59.4	51.7	70.6	76.3	79.6	70.7	51.2	79.6	mg/kg	910
Copper	38	37	57	26	45	32	36	39	32	46	57	mg/kg	2,400
Lead	30	31	34	24	24	24	34	41	35	20	41	mg/kg	ne
Mercury	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	mg/kg	1.2
Molybdenum	6.7	6.3	5.5	4.8	5	7.5	6.4	7.5	7.3	4.9	7.5	mg/kg	ne
Nickel	50.3	52.6	88.3	39.4	61.2	73.2	54.6	57.5	69.7	65.1	88.3	mg/kg	130
Selenium	3	3	2	2	2	4	<1	3	4	1	4	mg/kg	250
Zinc	157	139	160	102	131	108	133	130	158	114	160	mg/kg	3,700
Hexavalent Chromium	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0	mg/kg	6*

S4UL - Metals (Residential with homegrown produce), Sandford Park, January 2020

Sample ID	WS01	WS01	WS02	WS02	WS02	WS03	WS03	WS03	WS04	WS04	Max Level Detected	Units	Residential with homegrown produce
Sample Depth (m)	1.7	2.4	0.7	1.7	2.5	0.7	1.7	2.7	0.7	1.7			
Antimony	2	2	3	2	<1	2	2	2	2	2	3	mg/kg	ne
Arsenic	9.3	7.6	13.6	11.3	8.9	11.3	11.2	13.7	12.3	10.4	13.7	mg/kg	37
Barium	80	55	201	147	122	74	80	110	65	75	201	mg/kg	ne
Cadmium	2	1.4	4.7	2.3	1.1	3	2.3	1.6	2.7	2.1	4.7	mg/kg	11
Chromium	47.9	33	79.6	44.1	57.3	43.6	52.1	40.9	57.3	36.3	79.6	mg/kg	910
Copper	32	22	31	39	28	39	37	23	39	33	39	mg/kg	2,400
Lead	15	14	20	17	17	20	16	18	18	17	20	mg/kg	ne
Mercury	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	mg/kg	1.2
Molybdenum	5.5	3.4	8.7	6.4	4.2	4.5	5.1	4.1	4.5	4.6	8.7	mg/kg	ne
Nickel	42.7	27.6	72.8	51.9	42.6	51	58.4	37.1	51.7	47.3	72.8	mg/kg	130
Selenium	2	3	3	2	3	1	2	3	1	2	3	mg/kg	250
Zinc	96	66	114	110	98	95	98	77	93	93	114	mg/kg	3,700
Hexavalent Chromium	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0	mg/kg	6*

S4UL - Metals (Residential with homegrown produce), Sandford Park, January 2020

Sample ID	WS05	WS05	WS06	WS06	WS07	WS07	WS07	WS08	WS08	WS08	Max Level Detected	Units	Residential with homegrown produce
Sample Depth (m)	0.7	1.7	0.7	1.7	0.7	1.7	2.6	0.7	1.7	2.6			
Antimony	2	2	3	2	2	2	2	2	2	2	3	mg/kg	ne
Arsenic	10.6	9	15.7	10.3	9.1	10.8	10.1	6.9	7.6	10.9	15.7	mg/kg	37
Barium	77	85	163	105	60	105	102	65	94	42	163	mg/kg	ne
Cadmium	1.9	2.1	3.6	2.1	2.4	2.5	1.9	1.2	1.7	2.4	3.6	mg/kg	11
Chromium	46.4	41	50.1	33.4	52.6	44.6	40.6	50.2	42.5	39.2	52.6	mg/kg	910
Copper	33	33	37	33	31	37	28	20	26	32	37	mg/kg	2,400
Lead	17	15	22	14	15	16	17	11	14	17	22	mg/kg	ne
Mercury	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	mg/kg	1.2
Molybdenum	3.8	5.1	6	4.2	4	5.5	5.3	3.5	4.9	5.2	6	mg/kg	ne
Nickel	46.6	40.4	65.8	42.2	39.3	46.8	42.5	29.6	35.2	40	65.8	mg/kg	130
Selenium	1	1	2	2	1	1	4	1	1	3	4	mg/kg	250
Zinc	85	91	109	86	79	93	87	80	76	96	109	mg/kg	3,700
Hexavalent Chromium	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0	mg/kg	6*

S4UL - Metals (Residential with homegrown produce), Sandford Park, January 2020

Sample ID	WS09	WS09	WS09	WS10	WS10	WS10	WS11	WS11	WS11	WS12	Max Level Detected	Units	Residential with homegrown produce
Sample Depth (m)	0.7	1.7	2.6	0.7	1.7	2.3	0.7	1.7	2.2	0.7			
Antimony	2	2	2	2	2	2	2	2	2	2	2	mg/kg	ne
Arsenic	8.1	9.4	11.6	13.3	11.3	11	11.5	10.6	10.2	12.3	13.3	mg/kg	37
Barium	312	87	64	69	63	63	113	65	92	80	312	mg/kg	ne
Cadmium	1.9	2.1	1.9	2.5	2.1	2	2.6	2.9	2	1.4	2.9	mg/kg	11
Chromium	37.6	47.1	38.2	42.2	42.8	36.7	39.3	37.5	50.8	64	64	mg/kg	910
Copper	30	33	32	40	31	30	36	32	32	30	40	mg/kg	2,400
Lead	14	16	18	17	19	17	16	16	18	25	25	mg/kg	ne
Mercury	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	mg/kg	1.2
Molybdenum	3.5	4.7	4.9	4.6	4.7	4.4	4	4	5.1	4.3	5.1	mg/kg	ne
Nickel	35.5	43	41.2	51	39.2	39.7	47.4	37.9	44.7	34.1	51	mg/kg	130
Selenium	1	2	5	1	<1	2	1	<1	1	1	5	mg/kg	250
Zinc	62	94	98	101	90	86	83	103	91	164	164	mg/kg	3,700
Hexavalent Chromium	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0	mg/kg	6*

S4UL - Metals (Residential with homegrown produce), Sandford Park, January - March 2020

Sample ID	WS12	WS12	WS13	WS13	WS14	WS14	WS14	BH03	BH04	BH05	Max Level Detected	Units	Residential with homegrown produce
Sample Depth (m)	1.7	2.5	0.7	1.4	0.7	1.7	2.7	3	3	3			
Antimony	2	2	2	2	2	2	2	1	2	2	2	mg/kg	ne
Arsenic	9.4	10.1	10.4	9.8	10.2	8.3	10.2	6.2	8.8	6.8	10.4	mg/kg	37
Barium	88	130	71	64	68	121	51	48	59	56	130	mg/kg	ne
Cadmium	1.9	1.8	2.3	1.9	2.3	2.1	2	1.2	1.8	1.6	2.3	mg/kg	11
Chromium	40.2	37.4	40.5	34.4	39.9	35.8	35.7	40	47.4	41.8	47.4	mg/kg	910
Copper	29	31	31	33	30	28	32	19	27	26	33	mg/kg	2,400
Lead	16	18	14	15	13	15	17	14	48	15	48	mg/kg	ne
Mercury	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	mg/kg	1.2
Molybdenum	4.4	4.5	3.5	4	3.8	4.4	4.3	3.5	3.7	3.6	4.5	mg/kg	ne
Nickel	41.1	39.3	40.5	41.7	41.1	35.6	38.2	23.7	33.7	33.5	41.7	mg/kg	130
Selenium	<1	3	<1	<1	1	1	3	2	3	2	3	mg/kg	250
Zinc	89	86	83	89	89	80	91	54	73	71	91	mg/kg	3,700
Hexavalent Chromium	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0	mg/kg	6*

S4UL - Metals (Residential with homegrown produce), Sandford Park, January - March 2020

Sample ID	BH06	BH07	BH08	BH09	BH10	BH11	BH12
Sample Depth (m)	3	3	3	3	3	3	3
Antimony	2	1	2	2	2	2	2
Arsenic	10.3	5.2	9.5	10.6	10	10.6	10.2
Barium	84	39	90	76	75	76	78
Cadmium	2	1	2	2.3	1.8	2.4	1.8
Chromium	44.4	28.8	43.9	43.2	42.5	52.4	39.3
Copper	33	18	32	28	33	35	32
Lead	18	12	20	17	18	19	17
Mercury	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	4.1	2.5	3.7	5	4	4.3	3.8
Nickel	40.2	22	38.7	35.6	39	38.6	36.3
Selenium	3	2	2	3	4	3	6
Zinc	89	50	84	89	83	130	67
Hexavalent Chromium	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3

Max Level Detected	Units	Residential with homegrown produce
2	mg/kg	ne
10.6	mg/kg	37
90	mg/kg	ne
2.4	mg/kg	11
52.4	mg/kg	910
35	mg/kg	2,400
20	mg/kg	ne
0	mg/kg	1.2
5	mg/kg	ne
40.2	mg/kg	130
6	mg/kg	250
130	mg/kg	3,700
0	mg/kg	6*

S4UL - Organic Compounds (Residential with homegrown produce), Sandford Park, January 2020

Residential	CBR01 0.7	CBR02 0.7	CBR03 0.7	CBR04 0.7	CBR06 0.7	CBR07 0.7	CBR08 0.7	CBR09 0.7	CBR10 0.7	WS01 0.7	Max Level Detected	Units	Residential with homegrown produce		
													LQM/CIEH Suitable	4 Use Levels (S4ULs)	[mg/kg DW]
													1 % SOM	2.5 % SOM	6 % SOM
Aliphatics															
>C5-C6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	42	78	160
>C6-C8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	100	230	530
>C8-C10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	27	65	150
>C10-C12	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.00	mg/kg	130	330	760
>C12-C16	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	0.00	mg/kg	1,100	2,400	4,300
>C16-C21	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	ne	ne	ne
>C21-C35	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	ne	ne	ne
>C16-C35	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	0.00	mg/kg	65000	92000	110000
>C35-C40	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	ne	ne	ne
Total aliphatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	0.00	mg/kg	ne	ne	ne
>C6-C10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	ne	ne	ne
>C10-C25	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	0.00	mg/kg	ne	ne	ne
>C25-C35	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	0.00	mg/kg	ne	ne	ne
Aromatics															
>C5-EC7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	70	140	300
>EC7-EC8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	130	290	660
>EC8-EC10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	34	83	190
>EC10-EC12	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.00	mg/kg	74	180	380
>EC12-EC16	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	0.00	mg/kg	140	330	660
>EC16-EC21	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	260	540	930
>EC21-EC35	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	1,100	1,500	1,700
>EC35-EC40	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	ne	ne	ne
Total aromatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	0.00	mg/kg	ne	ne	ne
Total aliphatics and aromatics(C5-40)	<52	<52	<52	<52	<52	<52	<52	<52	<52	<52	0.00	mg/kg	ne	ne	ne
>EC6-EC10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	ne	ne	ne
>EC10-EC25	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	0.00	mg/kg	ne	ne	ne
>EC25-EC35	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	0.00	mg/kg	ne	ne	ne
BTEX															
MTBE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	mg/kg	ne	ne	ne
Benzene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	mg/kg	0.087	0.17	0.37
Toluene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	mg/kg	130	290	660
Ethylbenzene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	mg/kg	47	110	260
m/p-Xylene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	mg/kg	56	130	310
o-Xylene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.000	mg/kg	60	140	330
TOC	0.86	0.8	0.68	0.65	0.65	0.49	0.81	1.01	0.79	0.43		%			
SOM (Note 1)	1.48	1.38	1.17	1.12	1.12	0.84	1.40	1.74	1.36	0.74					

Note 1 - TOC * 1.724

S4UL - Organic Compounds (Residential with homegrown produce), Sandford Park, January 2020

Residential	WS01 1.7	WS01 2.4	WS02 0.7	WS02 1.7	WS02 2.5	WS03 0.7	WS03 1.7	WS03 2.7	WS04 0.7	WS04 1.7	Max Level Detected	Units	Residential with homegrown produce		
													LQM/CIEH Suitable 4 Use Levels (S4ULs) [mg/kg DW]	1 % SOM	2.5 % SOM
Aliphatics															
>C5-C6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	42	78	160
>C6-C8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	100	230	530
>C8-C10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	27	65	150
>C10-C12	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.00	mg/kg	130	330	760
>C12-C16	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	0.00	mg/kg	1,100	2,400	4,300
>C16-C21	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	ne	ne	ne
>C21-C35	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	ne	ne	ne
>C16-C35	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	0.00	mg/kg	65000	92000	110000
>C35-C40	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	ne	ne	ne
Total aliphatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	0.00	mg/kg	ne	ne	ne
>C6-C10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	ne	ne	ne
>C10-C25	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	0.00	mg/kg	ne	ne	ne
>C25-C35	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	0.00	mg/kg	ne	ne	ne
Aromatics															
>C5-EC7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	70	140	300
>EC7-EC8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	130	290	660
>EC8-EC10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	34	83	190
>EC10-EC12	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.00	mg/kg	74	180	380
>EC12-EC16	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	0.00	mg/kg	140	330	660
>EC16-EC21	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	260	540	930
>EC21-EC35	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	1,100	1,500	1,700
>EC35-EC40	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	ne	ne	ne
Total aromatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	0.00	mg/kg	ne	ne	ne
Total aliphatics and aromatics(C5-40)	<52	<52	<52	<52	<52	<52	<52	<52	<52	<52	0.00	mg/kg	ne	ne	ne
>EC6-EC10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	ne	ne	ne
>EC10-EC25	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	0.00	mg/kg	ne	ne	ne
>EC25-EC35	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	0.00	mg/kg	ne	ne	ne
BTEX															
MTBE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	mg/kg	ne	ne	ne
Benzene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	mg/kg	0.087	0.17	0.37
Toluene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	mg/kg	130	290	660
Ethylbenzene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	mg/kg	47	110	260
m/p-Xylene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	mg/kg	56	130	310
o-Xylene	<0.005	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.015	mg/kg	60	140	330
TOC	0.35	0.37	0.48	0.4	0.39	0.37	0.33	0.49	0.37	0.38		%			
SOM (Note 1)	0.60	0.64	0.83	0.69	0.67	0.64	0.57	0.84	0.64	0.66					

Note 1 - TOC * 1.724

S4UL - Organic Compounds (Residential with homegrown produce), Sandford Park, January 2020

Residential	WS05	WS05	WS06	WS06	WS07	WS07	WS07	WS08	WS08	WS08	Max Level Detected	Units	Residential with homegrown produce		
	0.7	1.7	0.7	1.7	0.7	1.7	2.6	0.7	1.7	2.6			LQM/CIEH Suitable 4 Use Levels (S4ULs) [mg/kg DW]	1 % SOM	2.5 % SOM
Aliphatics															
>C5-C6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	42	78	160
>C6-C8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	100	230	530
>C8-C10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	27	65	150
>C10-C12	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.00	mg/kg	130	330	760
>C12-C16	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	0.00	mg/kg	1,100	2,400	4,300
>C16-C21	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	ne	ne	ne
>C21-C35	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	ne	ne	ne
>C16-C35	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	0.00	mg/kg	65000	92000	110000
>C35-C40	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	ne	ne	ne
Total aliphatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	0.00	mg/kg	ne	ne	ne
>C6-C10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	ne	ne	ne
>C10-C25	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	0.00	mg/kg	ne	ne	ne
>C25-C35	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	0.00	mg/kg	ne	ne	ne
Aromatics															
>C5-EC7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	70	140	300
>EC7-EC8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	130	290	660
>EC8-EC10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	34	83	190
>EC10-EC12	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.00	mg/kg	74	180	380
>EC12-EC16	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	0.00	mg/kg	140	330	660
>EC16-EC21	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	260	540	930
>EC21-EC35	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	1,100	1,500	1,700
>EC35-EC40	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	ne	ne	ne
Total aromatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	0.00	mg/kg	ne	ne	ne
Total aliphatics and aromatics(C5-40)	<52	<52	<52	<52	<52	<52	<52	<52	<52	<52	0.00	mg/kg	ne	ne	ne
>EC6-EC10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	ne	ne	ne
>EC10-EC25	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	0.00	mg/kg	ne	ne	ne
>EC25-EC35	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	0.00	mg/kg	ne	ne	ne
BTEX															
MTBE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	mg/kg	ne	ne	ne
Benzene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	mg/kg	0.087	0.17	0.37
Toluene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	mg/kg	130	290	660
Ethylbenzene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	mg/kg	47	110	260
m/p-Xylene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	mg/kg	56	130	310
o-Xylene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.000	mg/kg	60	140	330
TOC	0.38	0.4	0.55	0.37	0.32	0.41	0.61	0.44	0.36	0.69		%			
SOM (Note 1)	0.66	0.69	0.95	0.64	0.55	0.71	1.05	0.76	0.62	1.19					

Note 1 - TOC * 1.724

S4UL - Organic Compounds (Residential with homegrown produce), Sandford Park, January 2020

Residential	WS09	WS09	WS09	WS10	WS10	WS10	WS11	WS11	WS11	WS12	Max Level Detected	Units	Residential with homegrown produce		
	0.7	1.7	2.6	0.7	1.7	2.3	0.7	1.7	2.2	0.7			LQM/CIEH Suitable 4 Use Levels (S4ULs) [mg/kg DW]	1 % SOM	2.5 % SOM
Aliphatics															
>C5-C6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	42	78	160
>C6-C8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	100	230	530
>C8-C10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	27	65	150
>C10-C12	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.00	mg/kg	130	330	760
>C12-C16	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	0.00	mg/kg	1,100	2,400	4,300
>C16-C21	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	ne	ne	ne
>C21-C35	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	ne	ne	ne
>C16-C35	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	0.00	mg/kg	65000	92000	110000
>C35-C40	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	ne	ne	ne
Total aliphatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	0.00	mg/kg	ne	ne	ne
>C6-C10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	ne	ne	ne
>C10-C25	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	0.00	mg/kg	ne	ne	ne
>C25-C35	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	0.00	mg/kg	ne	ne	ne
Aromatics															
>C5-EC7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	70	140	300
>EC7-EC8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	130	290	660
>EC8-EC10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	34	83	190
>EC10-EC12	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.00	mg/kg	74	180	380
>EC12-EC16	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	0.00	mg/kg	140	330	660
>EC16-EC21	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	260	540	930
>EC21-EC35	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	1,100	1,500	1,700
>EC35-EC40	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	ne	ne	ne
Total aromatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	0.00	mg/kg	ne	ne	ne
Total aliphatics and aromatics(C5-40)	<52	<52	<52	<52	<52	<52	<52	<52	<52	<52	0.00	mg/kg	ne	ne	ne
>EC6-EC10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	ne	ne	ne
>EC10-EC25	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	0.00	mg/kg	ne	ne	ne
>EC25-EC35	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	0.00	mg/kg	ne	ne	ne
BTEX															
MTBE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	mg/kg	ne	ne	ne
Benzene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	mg/kg	0.087	0.17	0.37
Toluene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	mg/kg	130	290	660
Ethylbenzene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	mg/kg	47	110	260
m/p-Xylene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	mg/kg	56	130	310
o-Xylene	<0.005	<0.005	<0.005	<0.005	<0.005	0.06	<0.005	<0.005	0.03	<0.005	0.058	mg/kg	60	140	330
TOC	0.38	0.4	0.69	0.37	0.37	0.49	0.39	0.36	0.3	1.06		%			
SOM (Note 1)	0.66	0.69	1.19	0.64	0.64	0.84	0.67	0.62	0.52	1.83					

Note 1 - TOC * 1.724

S4UL - Organic Compounds (Residential with homegrown produce), Sandford Park, January - March 2020

Residential	WS12 1.7	WS12 2.5	WS13 0.7	WS13 1.4	WS14 0.7	WS14 1.7	WS14 2.7	BH03 3	BH04 3	BH05 3	Max Level Detected	Units	Residential with homegrown produce		
													LQM/CIEH Suitable 4 1 % SOM	Use Levels (S4ULs) 2.5 % SOM	[mg/kg DW] 6 % SOM
Aliphatics															
>C5-C6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	42	78	160
>C6-C8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	100	230	530
>C8-C10	<0.1	<0.1	<0.1	0.20	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.20	mg/kg	27	65	150
>C10-C12	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.00	mg/kg	130	330	760
>C12-C16	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	0.00	mg/kg	1,100	2,400	4,300
>C16-C21	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	ne	ne	ne
>C21-C35	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	ne	ne	ne
>C16-C35	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	0.00	mg/kg	65000	92000	110000
>C35-C40	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	ne	ne	ne
Total aliphatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	0.00	mg/kg	ne	ne	ne
>C6-C10	<0.1	<0.1	<0.1	0.20	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.20	mg/kg	ne	ne	ne
>C10-C25	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	0.00	mg/kg	ne	ne	ne
>C25-C35	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	0.00	mg/kg	ne	ne	ne
Aromatics															
>C5-EC7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	70	140	300
>EC7-EC8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	130	290	660
>EC8-EC10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	34	83	190
>EC10-EC12	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.00	mg/kg	74	180	380
>EC12-EC16	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	0.00	mg/kg	140	330	660
>EC16-EC21	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	260	540	930
>EC21-EC35	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	1,100	1,500	1,700
>EC35-EC40	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	0.00	mg/kg	ne	ne	ne
Total aromatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	0.00	mg/kg	ne	ne	ne
Total aliphatics and aromatics(C5-40)	<52	<52	<52	<52	<52	<52	<52	<52	<52	<52	0.00	mg/kg	ne	ne	ne
>EC6-EC10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.00	mg/kg	ne	ne	ne
>EC10-EC25	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	0.00	mg/kg	ne	ne	ne
>EC25-EC35	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	0.00	mg/kg	ne	ne	ne
BTEX															
MTBE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	mg/kg	ne	ne	ne
Benzene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	mg/kg	0.087	0.17	0.37
Toluene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	mg/kg	130	290	660
Ethylbenzene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	mg/kg	47	110	260
m/p-Xylene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	mg/kg	56	130	310
o-Xylene	<0.005	<0.005	<0.005	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.015	mg/kg	60	140	330
TOC	0.35	0.66	0.32	0.37	0.36	0.34	0.69	0.54	0.57	0.63		%			
SOM (Note 1)	0.60	1.14	0.55	0.64	0.62	0.59	1.19	0.93	0.98	1.09					

Note 1 - TOC * 1.724

S4UL - Organic Compounds (Residential with homegrown produce), Sandford Park, January - March 2020

Residential	BH06	BH07	BH08	BH09	BH10	BH11	BH12
	3	3	3	3	3	3	3
Aliphatics							
>C5-C6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
>C6-C8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
>C8-C10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
>C10-C12	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
>C12-C16	<4	<4	<4	<4	<4	<4	<4
>C16-C21	<7	<7	<7	<7	<7	<7	<7
>C21-C35	<7	<7	<7	<7	<7	<7	<7
>C16-C35	<14	<14	<14	<14	<14	<14	<14
>C35-C40	<7	<7	<7	<7	<7	<7	<7
Total aliphatics C5-40	<26	<26	<26	<26	<26	<26	<26
>C6-C10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
>C10-C25	<10	<10	<10	<10	<10	<10	<10
>C25-C35	<10	<10	<10	<10	<10	<10	<10
Aromatics							
>C5-EC7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
>EC7-EC8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
>EC8-EC10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
>EC10-EC12	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
>EC12-EC16	<4	<4	<4	<4	<4	<4	<4
>EC16-EC21	<7	<7	<7	<7	<7	<7	<7
>EC21-EC35	<7	<7	<7	<7	<7	<7	<7
>EC35-EC40	<7	<7	<7	<7	<7	<7	<7
Total aromatics C5-40	<26	<26	<26	<26	<26	<26	<26
Total aliphatics and aromatics(C5-40)	<52	<52	<52	<52	<52	<52	<52
>EC6-EC10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
>EC10-EC25	<10	<10	<10	<10	<10	<10	<10
>EC25-EC35	<10	<10	<10	<10	<10	<10	<10
BTEX							
MTBE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Benzene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Toluene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
m/p-Xylene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
o-Xylene	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TOC	0.67	0.71	0.63	0.63	0.68	0.66	0.98
SOM (Note 1)	1.16	1.22	1.09	1.09	1.17	1.14	1.69

Note 1 - TOC * 1.724

Max Level Detected	Units	Residential with homegrown produce		
		LQM/CIEH Suitable 4 Use Levels (S4ULs) [mg/kg DW]		
		1 % SOM	2.5 % SOM	6 % SOM
0.00	mg/kg	42	78	160
0.00	mg/kg	100	230	530
0.00	mg/kg	27	65	150
0.00	mg/kg	130	330	760
0.00	mg/kg	1,100	2,400	4,300
0.00	mg/kg	ne	ne	ne
0.00	mg/kg	ne	ne	ne
0.00	mg/kg	65000	92000	110000
0.00	mg/kg	ne	ne	ne
0.00	mg/kg	ne	ne	ne
0.00	mg/kg	ne	ne	ne
0.00	mg/kg	ne	ne	ne
0.00	mg/kg	ne	ne	ne
0.00	mg/kg	70	140	300
0.00	mg/kg	130	290	660
0.00	mg/kg	34	83	190
0.00	mg/kg	74	180	380
0.00	mg/kg	140	330	660
0.00	mg/kg	260	540	930
0.00	mg/kg	1,100	1,500	1,700
0.00	mg/kg	ne	ne	ne
0.00	mg/kg	ne	ne	ne
0.00	mg/kg	ne	ne	ne
0.00	mg/kg	ne	ne	ne
0.00	mg/kg	ne	ne	ne
0.00	mg/kg	ne	ne	ne
0.00	mg/kg	ne	ne	ne
0.00	mg/kg	ne	ne	ne
0.00	mg/kg	ne	ne	ne
0.00	mg/kg	ne	ne	ne
0.00	mg/kg	ne	ne	ne
0.00	mg/kg	ne	ne	ne
0.00	mg/kg	ne	ne	ne
0.00	mg/kg	ne	ne	ne
0.00	mg/kg	ne	ne	ne
0.000	mg/kg	60	140	330
	%			

S4UL - PAHs (Residential with Homegrown Produce), Sandford Park, January 2020

	S4UL - PAHs (Residential with Homegrown Produce), Sandford Park, January 2020										Residential with homegrown produce					
	CBR01	CBR02	CBR03	CBR04	CBR06	CBR07	CBR08	CBR09	CBR10	WS01	Max Level	Units	LQM/CIEH Suitable 4 Use Levels (S4ULs) [mg/kg DW]			
	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	Detected		1 % SOM	2.5 % SOM	6 % SOM	
Naphthalene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	2.3	5.6	13	
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.00	mg/kg	170	420	920	
Acenaphthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.00	mg/kg	210	510	1,100	
Fluorene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	170	400	860	
Phenanthrene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.16	0.16	mg/kg	95	220	440	
Anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.06	0.06	mg/kg	2,400	5,400	11,000	
Fluoranthene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.25	0.25	mg/kg	280	560	890	
Pyrene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.22	0.22	mg/kg	620	1,200	2,000	
Benzo(a)anthracene	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.13	0.13	mg/kg	7.2	11	13	
Chrysene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.11	0.11	mg/kg	15	22	27	
Benzo(bk)fluoranthene	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	0.21	0.21	mg/kg	ne	ne	ne	
Benzo(a)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.1	0.10	mg/kg	2.2	2.7	3	
Indeno(123cd)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.08	0.08	mg/kg	27	36	41	
Dibenzo(ah)anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	0.24	0.28	0.3	
Benzo(ghi)perylene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.08	0.08	mg/kg	320	340	350	
Coronene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	ne	ne	ne	
PAH 6 Total	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	0.72	0.72	mg/kg	ne	ne	ne	
PAH 17 Total	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	1.4	1.40	mg/kg	ne	ne	ne	
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.15	0.15	mg/kg	2.6	3.3	3.7	
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.06	0.06	mg/kg	77	93	100	
Benzo(j)fluoranthene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.00	mg/kg	ne	ne	ne
TOC	0.86	0.8	0.68	0.65	0.65	0.49	0.81	1.01	0.79	0.43		%				
SOM (Note 1)	1.48	1.38	1.17	1.12	1.12	0.84	1.40	1.74	1.36	0.74						

Note 1 - TOC * 1.724

S4UL - PAHs (Residential with Homegrown Produce), Sandford Park, January 2020

	S4UL - PAHs (Residential with Homegrown Produce), Sandford Park, January 2020										Residential with homegrown produce				
	WS01	WS01	WS02	WS02	WS02	WS03	WS03	WS03	WS04	WS04	Max Level Detected	Units	LQM/CIEH Suitable 4 Use Levels (S4ULs) [mg/kg DW]		
	1.7	2.4	0.7	1.7	2.5	0.7	1.7	2.7	0.7	1.7			1 % SOM	2.5 % SOM	6 % SOM
Naphthalene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	2.3	5.6	13
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.00	mg/kg	170	420	920
Acenaphthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.00	mg/kg	210	510	1,100
Fluorene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	170	400	860
Phenanthrene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.00	mg/kg	95	220	440
Anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	2,400	5,400	11,000
Fluoranthene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.00	mg/kg	280	560	890
Pyrene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.00	mg/kg	620	1,200	2,000
Benzo(a)anthracene	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.00	mg/kg	7.2	11	13
Chrysene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.00	mg/kg	15	22	27
Benzo(bk)fluoranthene	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	0.00	mg/kg	ne	ne	ne
Benzo(a)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	2.2	2.7	3
Indeno(123cd)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	27	36	41
Dibenzo(ah)anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	0.24	0.28	0.3
Benzo(ghi)perylene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	320	340	350
Coronene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	ne	ne	ne
PAH 6 Total	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	0.00	mg/kg	ne	ne	ne
PAH 17 Total	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	0.00	mg/kg	ne	ne	ne
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.00	mg/kg	2.6	3.3	3.7
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.00	mg/kg	77	93	100
Benzo(j)fluoranthene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.00	mg/kg	ne	ne	ne
TOC	0.35	0.37	0.48	0.4	0.39	0.37	0.33	0.49	0.37	0.38		%			
SOM (Note 1)	0.60	0.64	0.83	0.69	0.67	0.64	0.57	0.84	0.64	0.66					

Note 1 - TOC * 1.724

S4UL - PAHs (Residential with Homegrown Produce), Sandford Park, January 2020											Residential with homegrown produce				
	WS05	WS05	WS06	WS06	WS07	WS07	WS08	WS08	WS08	Max Level	Units	LQM/CIEH Suitable 4 Use Levels (S4ULs) [mg/kg DW]			
	0.7	1.7	0.7	1.7	0.7	1.7	2.6	0.7	1.7	2.6	Detected	1 % SOM	2.5 % SOM	6 % SOM	
Naphthalene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	2.3	5.6	13
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.00	mg/kg	170	420	920
Acenaphthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.00	mg/kg	210	510	1,100
Fluorene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	170	400	860
Phenanthrene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.00	mg/kg	95	220	440
Anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	2,400	5,400	11,000
Fluoranthene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.00	mg/kg	280	560	890
Pyrene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.00	mg/kg	620	1,200	2,000
Benzo(a)anthracene	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.00	mg/kg	7.2	11	13
Chrysene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.00	mg/kg	15	22	27
Benzo(bk)fluoranthene	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	0.00	mg/kg	ne	ne	ne
Benzo(a)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	2.2	2.7	3
Indeno(123cd)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	27	36	41
Dibenzo(ah)anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	0.24	0.28	0.3
Benzo(ghi)perylene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	320	340	350
Coronene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	ne	ne	ne
PAH 6 Total	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	0.00	mg/kg	ne	ne	ne
PAH 17 Total	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	0.00	mg/kg	ne	ne	ne
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.00	mg/kg	2.6	3.3	3.7
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.00	mg/kg	77	93	100
Benzo(j)fluoranthene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.00	mg/kg	ne	ne	ne
TOC	0.38	0.4	0.55	0.37	0.32	0.41	0.61	0.44	0.36	0.69		%			
SOM (Note 1)	0.66	0.69	0.95	0.64	0.55	0.71	1.05	0.76	0.62	1.19					

Note 1 - TOC * 1.724

S4UL - PAHs (Residential with Homegrown Produce), Sandford Park, January 2020

	S4UL - PAHs (Residential with Homegrown Produce), Sandford Park, January 2020										Residential with homegrown produce				
	WS09	WS09	WS09	WS10	WS10	WS10	WS11	WS11	WS11	WS12	Max Level	Units	LQM/CIEH Suitable 4 Use Levels (S4ULs) [mg/kg DW]		
	0.7	1.7	2.6	0.7	1.7	2.3	0.7	1.7	2.2	0.7	Detected		1 % SOM	2.5 % SOM	6 % SOM
Naphthalene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	2.3	5.6	13
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.00	mg/kg	170	420	920
Acenaphthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.00	mg/kg	210	510	1,100
Fluorene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	170	400	860
Phenanthrene	<0.03	<0.03	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.05	mg/kg	95	220	440
Anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	2,400	5,400	11,000
Fluoranthene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.00	mg/kg	280	560	890
Pyrene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.00	mg/kg	620	1,200	2,000
Benzo(a)anthracene	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.00	mg/kg	7.2	11	13
Chrysene	<0.02	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	mg/kg	15	22	27
Benzo(bk)fluoranthene	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	0.00	mg/kg	ne	ne	ne
Benzo(a)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	2.2	2.7	3
Indeno(123cd)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	27	36	41
Dibenzo(ah)anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	0.24	0.28	0.3
Benzo(ghi)perylene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	320	340	350
Coronene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	ne	ne	ne
PAH 6 Total	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	0.00	mg/kg	ne	ne	ne
PAH 17 Total	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	0.00	mg/kg	ne	ne	ne
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.00	mg/kg	2.6	3.3	3.7
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.00	mg/kg	77	93	100
Benzo(j)fluoranthene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.00	mg/kg	ne	ne	ne
TOC	0.38	0.4	0.69	0.37	0.37	0.49	0.39	0.36	0.3	1.06		%			
SOM (Note 1)	0.66	0.69	1.19	0.64	0.64	0.84	0.67	0.62	0.52	1.83					

Note 1 - TOC * 1.724

S4UL - PAHs (Residential with Homegrown Produce), Sandford Park, January - March 2020

	S4UL - PAHs (Residential with Homegrown Produce), Sandford Park, January - March 2020										Residential with homegrown produce				
	WS12	WS12	WS13	WS13	WS14	WS14	WS14	BH03	BH04	BH05	Max Level	Units	LQM/CIEH Suitable 4 Use Levels (S4ULs) [mg/kg DW]		
	1.7	2.5	0.7	1.4	0.7	1.7	2.7	3	3	3	Detected		1 % SOM	2.5 % SOM	6 % SOM
Naphthalene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	2.3	5.6	13
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.00	mg/kg	170	420	920
Acenaphthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.00	mg/kg	210	510	1,100
Fluorene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	170	400	860
Phenanthrene	<0.03	0.06	<0.03	<0.03	<0.03	<0.03	0.05	<0.03	<0.03	<0.03	0.06	mg/kg	95	220	440
Anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	2,400	5,400	11,000
Fluoranthene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.00	mg/kg	280	560	890
Pyrene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.00	mg/kg	620	1,200	2,000
Benzo(a)anthracene	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.00	mg/kg	7.2	11	13
Chrysene	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	<0.02	0.03	mg/kg	15	22	27
Benzo(bk)fluoranthene	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	0.00	mg/kg	ne	ne	ne
Benzo(a)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	2.2	2.7	3
Indeno(123cd)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	27	36	41
Dibenzo(ah)anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	0.24	0.28	0.3
Benzo(ghi)perylene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	320	340	350
Coronene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.00	mg/kg	ne	ne	ne
PAH 6 Total	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	0.00	mg/kg	ne	ne	ne
PAH 17 Total	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	0.00	mg/kg	ne	ne	ne
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.00	mg/kg	2.6	3.3	3.7
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.00	mg/kg	77	93	100
Benzo(j)fluoranthene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.00	mg/kg	ne	ne	ne
TOC	0.35	0.66	0.32	0.37	0.36	0.34	0.69	0.54	0.57	0.63		%			
SOM (Note 1)	0.60	1.14	0.55	0.64	0.62	0.59	1.19	0.93	0.98	1.09					

Note 1 - TOC * 1.724

S4UL - PAHs (Residential with Homegrown Produce), Sandford Park, January - March 2020

	BH06	BH07	BH08	BH09	BH10	BH11	BH12
	3	3	3	3	3	3	3
Naphthalene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Acenaphthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluorene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Phenanthrene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Fluoranthene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Pyrene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Benzo(a)anthracene	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
Chrysene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo(bk)fluoranthene	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Indeno(123cd)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Dibenzo(ah)anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Benzo(ghi)perylene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Coronene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
PAH 6 Total	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22
PAH 17 Total	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo(j)fluoranthene	<1	<1	<1	<1	<1	<1	<1
TOC	0.67	0.71	0.63	0.63	0.68	0.66	0.98
SOM (Note 1)	1.16	1.22	1.09	1.09	1.17	1.14	1.69

Note 1 - TOC * 1.724

		Residential with homegrown produce		
Max Level Detected	Units	LQM/CIEH Suitable 4 Use Levels (S4ULs) [mg/kg DW]		
		1 % SOM	2.5 % SOM	6 % SOM
0.00	mg/kg	2.3	5.6	13
0.00	mg/kg	170	420	920
0.00	mg/kg	210	510	1,100
0.00	mg/kg	170	400	860
0.00	mg/kg	95	220	440
0.00	mg/kg	2,400	5,400	11,000
0.00	mg/kg	280	560	890
0.00	mg/kg	620	1,200	2,000
0.00	mg/kg	7.2	11	13
0.00	mg/kg	15	22	27
0.00	mg/kg	ne	ne	ne
0.00	mg/kg	2.2	2.7	3
0.00	mg/kg	27	36	41
0.00	mg/kg	0.24	0.28	0.3
0.00	mg/kg	320	340	350
0.00	mg/kg	ne	ne	ne
0.00	mg/kg	ne	ne	ne
0.00	mg/kg	ne	ne	ne
0.00	mg/kg	2.6	3.3	3.7
0.00	mg/kg	77	93	100
0.00	mg/kg	ne	ne	ne
	%			

APPENDIX 10 – Potential Material Outlets



Waste Category	Classification Criteria	Potential Outlets
Category A Unlined Soil Recovery Facilities	Soil and Stone only which are free from ¹² anthropogenic materials such as concrete, brock timber. Soil must be free from "contamination" e.g. PAHs, Hydrocarbons.	Soil Recovery Facilities, Waste Facility Permitted Sites, COR Sites or potential by-product if deemed not to be a waste and complying with requirements under Article 27 of European Waste Directive Regulations (2011). ¹³
Category B1 Inert Landfill	Reported concentrations within inert waste limits, which are set out by the adopted EU Council Decision 2003/33/EC establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 and Annex II of Directive 1999/31/EC (2002). Results also found to be non-hazardous using the HWOL application.	Integrated Materials Solutions Limited Partnership (IMS), Naul, County Dublin W0129-02 Walshestown Landfill Walshestown, Blackhall, Tipperkevin & Bawnoge, Naas, County Kildare W0254-01
Category B2 Inert Landfill	Reported concentrations greater than Category B1 criteria but less than IMS Hollywood Landfill acceptance criteria, as set out in their Waste Licence W0129-02. Results also found to be non-hazardous using the HWOL application*	Integrated Materials Solutions Limited Partnership (IMS), Naul, County Dublin W0129-02 Walshestown Landfill Walshestown, Blackhall, Tipperkevin & Bawnoge, Naas, County Kildare W0254-01 ¹⁴
Category C Non-Haz Landfill	Reported concentrations greater than Category B2 criteria but within non-haz landfill waste acceptance limits set out by the adopted EU Council Decision 2003/33/EC establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 and Annex II of Directive 1999/31/EC (2002). Results also found to be non-hazardous using the HWOL application.	Walshestown Landfill Walshestown, Blackhall, Tipperkevin & Bawnoge, Naas, County Kildare W0254-01 ¹⁵ Ballynagran Landfill, Co. Wicklow. W165-02 Drehid Landfill, Co. Kildare. W0201-01 East Galway Landfill, Co. Galway. W0178-02 Knockharley Landfill, Co. Meath. W0146-02
Category C 1 Non-Haz Landfill	As Category C but containing < 0.001% w/w asbestos fibres.	RILTA Environmental LTD. W0192-03 Enva Portlaoise.

¹² Free from equates to less than 2%.

¹³ S.I. No. 126/2011 - European Communities (Waste Directive) Regulations 2011 (Article 27).

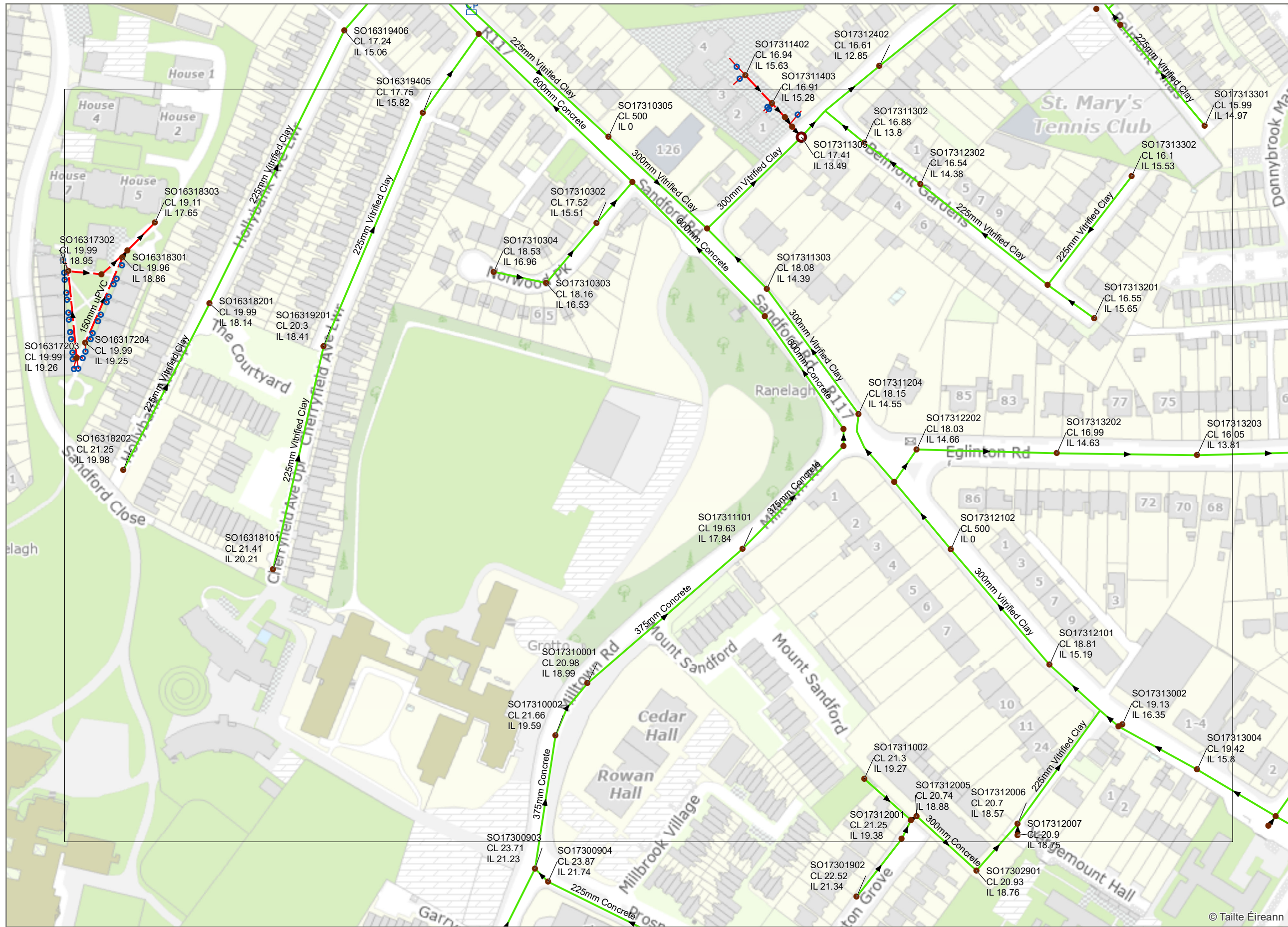
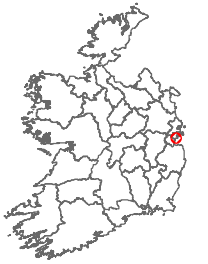
¹⁴ Licenced to accept Category B2 material for recovery.

¹⁵ Licenced to accept Category C material for recovery.

		W0184-02
Category C 2 Non-Haz Landfill	As Category C but containing >0.001% and <0.01% w/w asbestos fibres	RILTA Environmental LTD. W0192-03 Enva Portlaoise. W0184-02
Category C Non-Haz Landfill	As Category C but containing >0.01% and <0.1% w/w asbestos fibres.	RILTA Environmental LTD. W0192-03 Enva Portlaoise. W0184-02
Category D Hazardous Treatment	Results found to be hazardous using HWOL Application.	RILTA Environmental LTD. W0192-03 Enva Portlaoise. W0184-02
Category D 1 Hazardous Treatment	Results found to be hazardous due to the presence of asbestos (>0.1%).	RILTA Environmental LTD. W0192-03

Appendix 11.1

Irish Water Network Plans



Legend

- Location
- Sewer Manholes**
 - Standard
 - Backdrop
- Sewer Inlets**
 - CP Catchpit
 - Other; Unknown
- Sewer Mains (Irish Water)**
 - Gravity - Combined
 - Gravity - Foul
- Sewer Lateral Lines**
 - Sewer Lateral Lines



Coordinate System: TM65 Irish Grid
Projection: Transverse Mercator

Scale @ A3: 1:2,016

Drawing No.: IW-AGG-2018-000

Drawn By: Mo Ismail

Checked By: <Add Name>

Approved By: <Add Name>

Drawn Date: 24/11/2025

Checked Date: <dd/mm/yyyy>

Approved Date: <dd/mm/yyyy>



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