



Ground Investigations Ireland

Cornelscourt

Environmental Assessment Report

DOCUMENT CONTROL SHEET

Project Title	Cornelscourt
Engineer	DBFL
Project No	8354-01-19
Document Title	Environmental Assessment Report

Rev.	Status	Author(s)	Reviewed By	Approved By	Office of Origin	Issue Date
A	Final	B Sexton	C Finnerty	C Finnerty	Dublin	28 March 2019



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1.0 Preamble

On the instructions of DBFL Consulting Engineers, Ground Investigations Ireland (GII) carried out an Environmental assessment, between January and March 2019 at the site of the proposed residential development at Cornelscourt, Dublin 18. All site investigation works were carried out by GII drilling and excavation staff under the supervision of a GII Geo-Environmental Scientist.

2.0 Purpose & Scope

The purpose of the environmental assessment was as follows.

- Assess the site in terms of historical use and environmental setting;
- Assess the nature of the materials underlying the site;
- Assess an area of hydrocarbon impacted material in the south western section of the site;
- Assess the quality of the groundwater underlying the site; and
- Classification, in terms of waste management and final disposal outlets, of subsoils that may require disposal following excavation during the construction phase.

The scope of the work undertaken for this project included the following:

- Trial Pitting;
- Subsoil sampling;
- Borehole drilling and well installation;
- Groundwater sampling;
- Interpretation of chemical data; and
- Reporting of findings including recommendations.

3.0 Standards

The works were undertaken on a phased basis and in sequence, as is industry best practice, and were carried out cognisant of the following:

- BS 10175:2011, Investigation of Potentially Contaminated Sites. Code of practice;
- Eurocode 7 Part 2: Ground Investigation and testing (ISEN 1997 – 2:2007)
- BS 5930:2015, Code of Practice for ground investigations;
- CLR11, Model Procedures for the Management of Land Contamination, (Environment Agency, 2004); and

- Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites (Environmental Protection Agency, 2013).

4.0 Limitations

GII has prepared this report for the sole use of DBFL Consulting Engineers. 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 March 2019 and 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.

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 the 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.

5.0 Site Description

5.1. Site Location & Layout

The site, which is the subject of the environmental assessment, is located at Cornelscourt, Dublin 18 (Figure 1). The site at the time of the investigation was comprised of open grassland.

The site is bounded to the north and north east by the N11. There is an AIB branch located adjacent to the north west site boundary. The site is bounded by housing on the south eastern, southern and south western boundary. There is a filling station located adjacent to the western site boundary.

At the time of the assessment there was an area of Japanese Knotweed located on the eastern site boundary. There was no evidence of the disposal of waste or the storage of hazardous material on site at the time of the investigation.

The north north-western section of the site had been recently covered with a layer of clay which was still very soft and not suitable for traffic at the time of the investigation.

The adjacent filling station was located at an elevation higher than the site and was deemed to be upgradient of the site hydraulically.

5.2. Site History

GII carried out a review of the on-line database of historical maps held by the Ordnance Survey of Ireland (OSI). 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 historic maps indicate that the site was agricultural land prior to development. On the 6-inch map the village of Cornelscourt is indicated but the site is as yet undeveloped (Figure 2). On the 25-inch map the site is almost entirely undeveloped with a small building on the site footprint adjacent to the present day filling station (Figure 3), the building use is no noted.

GII reviewed the aerial photograph record between 1995 and present day (OSI and Google Imagery). The photos from 1995 onwards indicate that the site has been undeveloped since then with the exception of the development of what appears from the photographs to be a car parking area in the 2016 (Figure 4). Based on the aerial photograph approximately 3,000 square metres of the site in the north western corner was stripped of topsoil to allow the construction of a temporary carpark in that area. A berm appears to have been constructed with the stripped material to the east of the carpark.

At the time of the site inspection this berm and the carpark were absent suggesting that the berm had been replaced across the carpark area.

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 (WFD) 'Water Matters' database and the OPW Flood Maps Viewer. All relevant environmental setting data is presented in Figures 5 to 13 in Appendix 1.

Table 1 Environmental Setting

Environmental Feature	Relevant Details
Topography	The site slopes from the south west to the north east. The elevation ranges from approximately 55mOD in the south west to approximately 48mOD in the north east. The local topography slopes from south west to north east.
Geology	<p><u>Quaternary Geology:</u></p> <p>The Geological Quaternary mapping indicates that the site is underlain by till derived from limestone (TLs).</p> <p>The subsoil encountered in the site investigation phase confirm the GSI classification.</p>
	<p><u>Bedrock Geology:</u></p> <p>The bedrock underlying the site is the Type 2 Microcline Porphyritic Granite. It is comprised of granite with microcline phenocrysts.</p>
Hydrogeology	<p><u>Aquifer Classification:</u></p> <p>The underlying bedrock has been classified by the GSI as a Poor Aquifer which is generally unproductive except for local zones (PI). The Eastern River Basin District (ERBD) Management Plan identifies that the groundwater body (GWB) beneath the site is part of the “Dublin Urban” GWB (IE_EA_G_005). The GWB Report indicated that the status of the water body is good.</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 moderate in the north east to high in the south west and west. A subsoil type of TILL (which is of low permeability) and a high vulnerability indicate a subsoil thickness of between 3m and 5m, moderate</p>

Environmental Feature	Relevant Details
	<p>vulnerability indicates 5-10m of subsoil. Site investigations on site have proven the depth to rock in the north and north eastern section of the site to be in excess of 10m and between 3m and 5m in the southern section of the site. Vulnerability therefore ranges from low to high across the site.</p> <p><u>Groundwater Flow Direction:</u></p> <p>The groundwater flow direction is assumed to reflect the regional topography and is to the east and south east.</p> <p><u>Well Search:</u></p> <p>A review of the GSI groundwater well database found no record of any public water supply or drinking water protection zones within 1km of the site. There are no groundwater wells located hydraulically downgradient between the site and the closest downgradient surface water feature.</p>
Hydrology & Catchment	<p><u>Surface Water Courses:</u></p> <p>The Eastern River Basin District (ERBD) Management Plan identifies that the site lies within the Loughlinstown Lower Surface Water Body (SWB) catchment area (IE_EA_10_1570). The WFD SWB Report is in Appendix 2. The overall status of this waterbody is 'Poor', which is based on impacts from point source inputs in this urban catchment area and not attributable to activities on site.</p> <p>There are no surface water features directly connected to the site. The site at the time of the investigation was free draining. The closest surface water feature is the Kill-O-The-Grange Stream located approximately 600m to the north east of the site. The stream flows to the south east towards and discharges into Killiney Bay approximately 4km to the south east of the site.</p> <p>Surface water will, based on the local topography, drain to the east and south east towards the Kill-O-The-Grange Stream.</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</p>

Environmental Feature	Relevant Details
	<p>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. GII reviewed these maps (Appendix 3) which indicate that the site is at very low risk of being affected by fluvial or coastal flooding events. The risk maps indicate that there is a very low risk to the site to 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: less than 1 %, 1 to 5 %, 5 to 10 %, 10 to 20 % and greater than 20 %. The subject site is located within a grid where 5 to 10% 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 there several designated areas within close proximity of the site.</p> <p>The Rockabill to Dalkey Island Special Area of Conservation (SAC) (site code 003000) is located approximately 5km to the east of the site.</p> <p>The Dalkey Island Special Protected Area (SPA) (site code 004172) is located approximately 5km to the north north-east of the site.</p>

7.0 Previous Site Investigation

GII reviewed a previous site investigation dated September 2018 (Appendix 4).¹ The report identified an area of hydrocarbon impacted material in the western section adjacent to the neighbouring filling station. The source of the hydrocarbon impact is identified in the report as “*an older leak most likely originating from the upgradient petrol station*”. The AWN report analysed a limited amount of soil samples and compared

¹ AWN Consulting, *Environmental Due Diligence - Cornelscourt, Co. Dublin (September 2018)*.

the chemical data to existing generic site assessment criteria. A detailed quantitative risk assessment was also completed. Both assessment techniques gave an output that resulted in the conclusion that the site was of low environmental risk and that it is suitable for redevelopment for residential or commercial development.

8.0 Subsurface Exploration

GII carried out an intrusive site investigation between January and March 2019. The scope of the work undertaken for this project included the following:

- Carry out 16 No. Trial Pits to a maximum depth of 4.5m BGL
- Carry out 13 No. Window Sample Boreholes to recover soil samples
- Carry out 9 No. Cable Percussion boreholes to a maximum depth of 6m BGL
- Carry out 10 No. Rotary Core Boreholes to a maximum depth of 17.4m BGL
- Installation of 4 No. Groundwater monitoring wells
- Collection and analysis of subsoil samples
- Collection and analysis of groundwater samples

All site investigation locations were logged by a GII Geo-Environmental Scientist/Engineering Geologist in accordance with BS5930.

8.1. Trial Pits

The trial pits were excavated using a JCB 3CX at the locations shown in Figures 14. 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 Geo-Environmental Scientist/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 5 of this Report.

8.2. Window Sampling

The window sampling was carried out at the locations shown in Figure 16 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 6 of this Report.

8.3. Cable Percussion Boreholes

The Cable Percussion Boreholes were drilled 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 cable percussion borehole logs are provided in Appendix 7 of this Report.

8.4. Rotary Boreholes

The rotary coring was carried out by a track mounted T44 Beretta rig at the locations shown in Figure 15. The rotary boreholes were completed from the ground surface or alternatively, where noted on the individual borehole log, from the base of the cable percussion borehole where a temporary liner was installed to facilitate follow-on rotary coring.

The T44 Beretta is equipped with rubber tracks which allow for short travel on pavement surfaces avoiding any damage to the surface. The T44 Beretta utilises a triple tube core barrel system operated using a wireline drilling process. The outer barrel is rotated by the drill rods and at its lower end, carries the coring bit. The inner barrel is mounted on a swivel so that it does not rotate during the process. The third barrel or liner is placed within the second one to retain the core intact and to preserve as much as possible the fabric of the drilling stratum. The core is cut by the coring bit and passes to the inner liner. The core is brought up to the surface within the inner barrel on a small diameter wire rope or line attached to the "overshoot" recovery tool which is then placed into a core box in order of recovery. A drilling fluid, typically air mist or water flush is passed from the surface through hollow drill rods to the drill bit, and is used to cool the drill bit. Temporary casing is used in some situations to support unstable ground or to seal off fissures or voids. It should be noted that the rotary coring can only achieve limited recovery in overburden, particularly granular or weakly cemented strata due to the flushing medium washing away the cohesive fraction during coring. The recovery achieved, where required is noted on the borehole logs and core photographs are provided to allow assessment of the core recovered. The rotary borehole logs are provided in Appendix 8 of this Report.

8.5. Surveying

The exploratory hole locations have been recorded using a Trimble R10 GNSS System which records the coordinates and elevation of the locations to ITM or Irish National Grid as required by the project specification. The coordinates and elevations are provided on the exploratory hole logs in the appendices of this Report.

8.6. Groundwater Monitoring Installations

Groundwater and or Gas Monitoring Installation were installed upon the completion of the boreholes to enable sampling and the determination of the equilibrium groundwater level. The typical groundwater monitoring installation consists of a 50mm HDPE slotted pipe with a pea gravel response zone and bentonite seal installed to the Engineers specification. Where required the standpipe is sealed with a gas tap and finished with a durable steel cover fixed in place with a concrete surround. The installation details are provided on the exploratory hole logs in the appendices of this Report.

9.0 Ground Conditions

9.1. 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.

The sequence of strata encountered were variable across the site and are generally comprised;

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

TOPSOIL: Topsoil was encountered in all the exploratory holes and was present to a maximum depth of 0.3m BGL. Tarmac surfacing was present typically to a depth of 0.05m BGL.

MADE GROUND: Made Ground deposits were encountered occasionally beneath the Topsoil and was present to depths of between 0.5m and 1.1m BGL. These deposits were described generally as *brown sandy slightly gravelly Clay with frequent cobbles and boulders and contained occasional fragments of concrete, red brick, glass and plastic.*

COHESIVE DEPOSITS: Cohesive deposits were encountered beneath the Made Ground and were described typically as *brown or brown mottled grey sandy gravelly CLAY with occasional cobbles* overlying a *stiff brown/orange/grey sandy gravelly CLAY with occasional cobbles and boulders*. In TP20 a *stiff to very stiff black slightly sandy gravelly CLAY with rare cobbles and boulders* was encountered below 2.5m BGL. 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 was soft or soft to firm and typically increased with depth and was firm to stiff or stiff below 1.5m to 2.0m BGL in the majority of the exploratory holes. These deposits had some, occasional or frequent cobble and boulder content where noted on the exploratory hole logs.

GRANULAR DEPOSITS: The granular deposits were encountered within the cohesive deposits in TP21 and in BH02 and were typically described as *Grey/brown clayey sandy fine to coarse GRAVEL or gravelly Sand*. The secondary sand/gravel and silt/clay constituents varied across the site and with depth while occasional or frequent cobble and boulder content also present where noted on the exploratory hole logs. The rotary boreholes cored the overburden deposits where the cable percussion boreholes refused on obstructions at shallower depths than the bedrock. The core recovery ranged from 0% to 50% in the sandy gravelly Clay deposits with the fines material often washed away by the water flush used to cool and remove the cuttings from the drilling bit. The overburden material has been described with the drillers notes of the strata encountered and the Engineers assessment of recovery achieved. There is a possibility of granular lenses present within the cohesive deposits where the rotary coring continued from the base of the cable percussion borehole to the top of rock.

BEDROCK: The rotary core boreholes recovered Granite Bedrock in each of the boreholes at depths of 2.6m to 12.0m BGL. The depth to rock varies from 2.85m BGL (49.65m OD) in BH10 and is deeper towards the north and north eastern portion of the site to a maximum of 12.0m BGL (36.7m OD) in BH02 and 9.7m BGL (38.62m OD) in BH03. The total core recovery is good in the granite bedrock, typically 100% with some of the uppermost runs dropping to 80 or 90%. The SCR and RQD both are relatively poor in the upper weathered zone, often recovered as non-intact, however both indices show an increase with depth in each of the boreholes. The strength of the stratum varies from Extremely weak to strong as noted on the logs with some portions of the core recovered as non-intact. The weathering is noted on the core logs and is typically distinctly weathered to partially weathered with occasional zones of where the granite was unweathered.

9.2. Groundwater

Groundwater strikes are noted on the exploratory hole logs where they occurred and where possible drilling was suspended for twenty minutes to allow the subsequent rise in groundwater to be recorded. We would point out that these exploratory holes did not remain open for sufficiently long periods of time to establish the hydrogeological regime and groundwater levels would be expected to vary with the tide, time of year,

rainfall, nearby construction and other factors. For this reason, standpipes were installed in BH-03, 07, 08 and 11. Groundwater samples were collected from the wells.

9.3. Surface Water Assessment

There are no surface water features on site and no surface water features directly associated with the site. As such surface water sampling and analysis were not undertaken.

9.4. Groundwater Assessment

Groundwater samples were collected by a GII Geo-Environmental Scientist/Engineering Geologist from the wells BH-03, BH-07, BH-08 and BH-11 on the 13th March 2019. BH-11 is located in the upgradient portion of the site while BH-03 is located in the most downgradient portion of the site. The wells BH-07 and BH-08 were located immediately downgradient of the hydrocarbon impacted area and were positioned to assess any impact on groundwater associated with the historical contamination.

Groundwater levels in each well were recorded using a 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. Based on the groundwater levels recorded the groundwater flow direction is to the north east.

9.5. Field Observations

Mild hydrocarbon odours were noted from the groundwater wells BH-07 and BH-11 at the time of sampling. There was no evidence of hydrocarbon impact noted during the collection of groundwater samples from BH-03 and BH-08.

Field observations and in-situ monitoring are presented in Table 2.

Table 2 In-Situ Groundwater Monitoring Data

Parameter	Units	BH-03	BH-07	BH-08	BH-11
Colour	-	Brown	Brown	Brown	Brown
Odour	-	Hydrocarbon Odour	Hydrocarbon Odour	None	None
Water Level	mBGL	2.27	1.02	0.96	1.0
Well Head Elevation	(mOD)	48.32	52.56	51.88	52.89
Water Level	(mOD)	46.05	51.54	50.92	51.89

9.6. Laboratory Analysis

Laboratory analysis was undertaken 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, nitrite, 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 analytical methodologies are all ISO/CEN approved or equivalent.

9.7. Laboratory Results

The full laboratory test report is presented in Appendix 9 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.

Elevated levels of manganese were detected in all wells across the site, this suggest that it is naturally occurring.

Slightly elevated levels of TPH were detected I BH-11 (114ug/l). BTEX and MTBE were not detected in BH-11.

TPH, BTEX and MTBE were not detected in the remaining wells sampled.

The groundwater data indicates that there is a limited plume of hydrocarbon impacted groundwater downgradient of the filling station.

Table 3 Groundwater Metals and Inorganics

Parameter	BH-03	BH-07	BH-08	BH-11	LOD ²	Unit	EPA IGV ³	GTV ⁴
Dissolved Arsenic	4.9	2.9	4.0	23.5	<2.5	µg/l	-	7.5
Dissolved Boron	32	38	49	38	<12	µg/l	-	750
Dissolved Cadmium	<0.5	<0.5	<0.5	<0.5	<0.5	µg/l	-	3.75
Total Dissolved Chromium	<1.5	<1.5	<1.5	<1.5	<1.5	µg/l	-	37.5

² Limit of Detection.

³ EPA Report – Towards Setting Guideline Values for the Protection of Groundwater in Ireland, Interim Report, 2003.

⁴ Groundwater Threshold Values as set out in S.I. 9 of 2010.

Parameter	BH-03	BH-07	BH-08	BH-11	LOD ²	Unit	EPA IGV ³	GTV ⁴
Dissolved Copper	<7	13	<7	<7	<7	µg/l	-	1,500
Dissolved Lead	<5	<5	<5	<5	<5	µg/l	-	18.75
Dissolved Manganese	571	480	194	599	<2	µg/l	50	ne ⁵
Dissolved Mercury	<1	<1	<1	<1	<1	µg/l	-	0.75
Dissolved Nickel	3	59	16	8	<2	µg/l	-	15
Dissolved Potassium	5.6	7.5	11.6	8.8	<0.1	mg/l	5	ne
Dissolved Zinc	<3	3	<3	<3	<3	µg/l	100	ne
Hexavalent Chromium	<0.006	<0.006	<0.006	<0.006	<0.006	mg/l	ne	ne
Sulphate	24.9	38.1	14.3	17.2	<0.5	mg/l	-	187.5
Chloride	20.0	37.2	23.7	17.9	<0.3	mg/l	-	187.5
Nitrate as NO ₃	<0.2	5.4	5.6	2.2	<0.2	mg/l	-	37.5
Nitrite	0.15	1.03	<0.02	0.08	<0.02	mg/l	-	0.375
Total Cyanide	<0.01	<0.01	<0.01	<0.01	<0.01	mg/l	-	0.0375
Ammoniacal Nitrogen as NH ₃	0.37	0.42	0.06	0.11	<0.03	mg/l	-	0.175
Electrical Conductivity @25C #	292	694	641	399	<2	µS/cm	1,000	1,875
pH	8.44	7.54	7.59	7.85	<0.01	pH units	≥ 6.5 - ≤ 9.5	ne

Table 4 Groundwater PAHs

Parameter	BH-03	BH-07	BH-08	BH-11	LOD	Unit	EPA IGV	GTV
Naphthalene	<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	µg/l	ne	ne
Acenaphthene	<0.013	<0.013	<0.013	<0.013	<0.014	µg/l	ne	ne
Fluorene	<0.014	<0.014	<0.014	<0.014	<0.011	µg/l	ne	ne
Phenanthrene	<0.011	<0.011	<0.011	<0.011	<0.013	µg/l	ne	ne
Anthracene	<0.013	<0.013	<0.013	<0.013	<0.012	µg/l	10,000	ne
Fluoranthene	<0.012	<0.012	<0.012	<0.012	<0.013	µg/l	1	ne
Pyrene	<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	<0.011	µg/l	ne	ne
Chrysene	<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	<0.016	µg/l	ne	ne
Benzo(a)pyrene	<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	<0.01	µg/l	0.05	ne
Dibenzo(ah)anthracene	<0.01	<0.01	<0.01	<0.01	<0.011	µg/l	ne	ne

⁵ ne – not established.

Parameter	BH-03	BH-07	BH-08	BH-11	LOD	Unit	EPA IGV	GTV
Benzo(ghi)perylene	<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	<0.01	µg/l	ne	0.075
Benzo(b)fluoranthene	<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	<0.1	µg/l	0.05	ne

Table 5 Groundwater Hydrocarbons

Parameter	BH-03	BH-07	BH-08	BH-11	LOD	Unit	EPA IGV	GTV
TPH CWG								
Aliphatics								
>C5-C6	<10	<10	<10	35	<10	µg/l	ne	ne
>C6-C8	<10	<10	<10	63	<10	µg/l	ne	ne
>C8-C10	<10	<10	<10	16	<10	µg/l	ne	ne
>C10-C12	<5	<5	<5	<5	<5	µg/l	ne	ne
>C12-C16	<10	<10	<10	<10	<10	µg/l	ne	ne
>C16-C21	<10	<10	<10	<10	<10	µg/l	ne	ne
>C21-C35	<10	<10	<10	<10	<10	µg/l	ne	ne
Total aliphatics C5-35	<10	<10	<10	114	<10	µg/l	0.01	ne
Aromatics								
>C5-EC7	<10	<10	<10	<10	<10	µg/l	ne	ne
>EC7-EC8	<10	<10	<10	<10	<10	µg/l	ne	ne
>EC8-EC10	<10	<10	<10	<10	<10	µg/l	ne	ne
>EC10-EC12	<5	<5	<5	<5	<10	µg/l	ne	ne
>EC12-EC16	<10	<10	<10	<10	<10	µg/l	ne	ne
>EC16-EC21	<10	<10	<10	<10	<10	µg/l	ne	ne
>EC21-EC35	<10	<10	<10	<10	<10	µg/l	ne	ne
Total aromatics C5-35	<10	<10	<10	<10	<10	µg/l	0.01	ne
Total aliphatics and aromatics(C5-35)	<10	<10	<10	114	<10	µg/l	0.01	ne
Total Phenols HPLC					<0.01	µg/l	0.5	ne
MTBE	<5	<5	<5	25	<5	µg/l	30	ne
Benzene	<5	<5	<5	<5	<5	µg/l	ne	0.75
Toluene	<5	<5	<5	<5	<5	µg/l	10	ne
Ethylbenzene	<5	<5	<5	<5	<5	µg/l	10	ne
m/p-Xylene	<5	<5	<5	<5	<5	µg/l	10	ne
o-Xylene	<5	<5	<5	<5	<5	µg/l	10	ne

9.8. Waste Classification Sampling

Subsoil samples were collected from the trial pits to allow the classification of waste materials to be removed from site during the construction process. At the time of the investigation it was proposed to excavate a basement for the proposed development which would result in a dig which would reduce in depth from approximately 4m in the south western section of the site to approximately 1m in the north eastern section of the site at the N11. Samples were collected between ground level and the proposed excavation depth across the site.

9.9. Waste Classification Analysis

In order to assess materials, which may be excavated from site, in terms of waste classification, the 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 licenced landfills (inert, stable non-reactive, hazardous etc.). 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 RILTA suite also includes those parameters specified in the EC 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.

As part of the RILTA suite a leachate is generated from the solid samples which is 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 full laboratory reports for all analyses are presented in Appendix 9.

A number of samples collected from the area adjacent to the filling station were analysed for TPH including BTEX and MTBE in order to refine the extent of the hydrocarbon impact area highlighted in the 2018 AWN report.

10.0 Waste Classification

GII understand 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 some of the materials may then be declared a by-product in line with Article 27 of the European Communities (Waste Directive) Regulations 2011⁶.

⁶ S.I. No. 126/2011 - European Communities (Waste Directive) Regulations 2011 (Article 27).

Any natural subsoils removed from site may be classified on the List of Waste (LoW) with a “mirror” entry LoW code (formerly EWC), either 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).

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 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 SI location is summarised in Table 1 below. The assigning of each code is based on observations recorded in the trial pits and an estimation of the % of anthropogenic material present. The final LoW codes applied may vary due 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.

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 on site 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.**

11.0 HazWasteOnLine™ Results

In total forty-nine (49 No.) samples were assessed using the HazWasteOnLine™ Tool. Five samples were classified as hazardous. These samples were deemed to be hazardous due to elevated levels of hydrocarbons and the associated hazardous properties HP7 carcinogenic and HP11 mutagenic. The remaining samples were classified as non-hazardous. The complete HazWasteOnLine™ reports for all samples are included in Appendix 10.

⁷ EPA (2017) - Draft Guidance Note on Soil Recovery Waste Acceptance Criteria.

Table 6 Waste Classification Summary

Sample ID	Sample Depth (m)	LoW Code	Haz/Non-Haz	Asbestos
TP-01	0.50	17 05 04	Non-Hazardous	NAD ⁸
TP-02	0.60	17 05 04	Non-Hazardous	NAD
TP-03	0.50	17 05 04	Non-Hazardous	NAD
TP-04	1.00	17 05 04	Non-Hazardous	NAD
TP-05	0.80	17 05 04	Non-Hazardous	NAD
TP-06	0.50	17 05 04	Non-Hazardous	NAD
TP-06	1.50	17 05 04	Non-Hazardous	NAD
TP-07	0.50	17 05 04	Non-Hazardous	NAD
TP-07	1.50	17 05 04	Non-Hazardous	NAD
TP-07	2.50	17 05 04	Non-Hazardous	NAD
TP-07A	0.50	17 05 04	Non-Hazardous	NAD
TP-07A	1.50	17 05 04	Non-Hazardous	NAD
TP-08	0.50	17 05 04	Non-Hazardous	NAD
TP-08	1.50	17 05 04	Non-Hazardous	NAD
TP-09	0.50	17 05 04	Non-Hazardous	NAD
TP-09	1.50	17 05 04	Non-Hazardous	NAD
TP-11	1.00	17 05 04	Non-Hazardous	NAD
TP-11	2.00	17 05 04	Non-Hazardous	NAD
TP-11	3.00	17 05 04	Non-Hazardous	NAD
TP-12	0.50	17 05 04	Non-Hazardous	NAD
TP-12	1.50	17 05 04	Non-Hazardous	NAD
TP-12	2.50	17 05 04	Non-Hazardous	NAD
TP-13	0.50	17 05 04	Non-Hazardous	NAD
TP-13	1.50	17 05 04	Non-Hazardous	NAD
TP-13	2.50	17 05 04	Non-Hazardous	NAD
TP-14	1.00	17 05 03	Hazardous	NAD
TP-14	2.00	17 05 03	Hazardous	NAD
TP-14	3.00	17 05 03	Hazardous	NAD
TP-16	0.50	17 05 04	Non-Hazardous	NAD
TP-16	1.50	17 05 04	Non-Hazardous	NAD
TP-16	2.50	17 05 04	Non-Hazardous	NAD
TP-17	0.50	17 05 04	Non-Hazardous	NAD
TP-17	1.50	17 05 04	Non-Hazardous	NAD
TP-17	2.50	17 05 04	Non-Hazardous	NAD
TP-20	0.50	17 05 04	Non-Hazardous	NAD
TP-20	1.50	17 05 04	Non-Hazardous	NAD
TP-21	0.50	17 05 04	Non-Hazardous	NAD
TP-21	1.50	17 05 04	Non-Hazardous	NAD
TP-21	2.50	17 05 04	Non-Hazardous	NAD
WS01	0.0-1.0	17 05 04	Non-Hazardous (TPH)	-
WS01	1.0-2.0	17 05 04	Non-Hazardous (TPH)	-

⁸ NAD – no asbestos detected.

Sample ID	Sample Depth (m)	LoW Code	Haz/Non-Haz	Asbestos
WS01	2.0-3.0	17 05 04	Non-Hazardous (TPH)	-
WS02	0.0-1.0	17 05 04	Non-Hazardous (TPH)	-
WS02	1.0-2.0	17 05 04	Non-Hazardous (TPH)	-
WS02	2.0-3.0	17 05 04	Non-Hazardous (TPH)	-
WS03	0.0-1.0	17 05 04	Non-Hazardous (TPH)	-
WS03	1.0-2.0	17 05 04	Non-Hazardous (TPH)	-
WS03	2.0-3.0	17 05 04	Non-Hazardous (TPH)	-
WS04	0.0-1.0	17 05 04	Non-Hazardous	NAD
WS04	1.0-2.0	17 05 04	Non-Hazardous	NAD
WS04	2.0-3.0	17 05 04	Non-Hazardous	NAD
WS04	3.0-4.0	17 05 04	Non-Hazardous (TPH)	-
WS05	0.0-1.0	17 05 04	Non-Hazardous (TPH)	-
WS05	1.0-2.0	17 05 04	Non-Hazardous (TPH)	-
WS05	2.0-3.0	17 05 04	Non-Hazardous (TPH)	-
WS06	0.0-1.0	17 05 04	Non-Hazardous (TPH)	-
WS06	1.0-2.0	17 05 04	Non-Hazardous (TPH)	-
WS06	2.0-3.0	17 05 04	Non-Hazardous (TPH)	-
WS07	0.0-1.0	17 05 04	Non-Hazardous (TPH)	-
WS07	1.0-2.0	17 05 04	Non-Hazardous	NAD
WS07	2.0-3.0	17 05 04	Non-Hazardous	NAD
WS07	3.0-4.0	17 05 04	Non-Hazardous	NAD
WS08	0.0-1.0	17 05 04	Non-Hazardous (TPH)	-
WS08	1.0-2.0	17 05 04	Non-Hazardous (TPH)	-
WS08	2.0-3.0	17 05 04	Non-Hazardous	NAD
WS09	0.0-1.0	17 05 04	Non-Hazardous (TPH)	-
WS09	1.0-2.0	17 05 04	Non-Hazardous (TPH)	-
WS09	2.0-3.0	17 05 04	Non-Hazardous (TPH)	-
WS10	0.0-1.0	17 05 04	Non-Hazardous (TPH)	-
WS10	1.0-2.0	17 05 04	Non-Hazardous (TPH)	-
WS10	2.0-3.0	17 05 04	Non-Hazardous	NAD
WS10	3.0-4.0	17 05 04	Non-Hazardous	NAD
WS11	0.0-1.0	17 05 04	Non-Hazardous (TPH)	-
WS11	1.0-2.0	17 05 03	Hazardous (TPH)	-
WS11	2.0-3.0	17 05 03	Hazardous (TPH)	-
WS12	0.0-1.0	17 05 04	Non-Hazardous (TPH)	-
WS12	1.0-2.0	17 05 04	Non-Hazardous (TPH)	-
WS12	2.0-3.0	17 05 04	Non-Hazardous (TPH)	-
WS13	0.0-1.0	17 05 04	Non-Hazardous (TPH)	-
WS13	1.0-2.0	17 05 04	Non-Hazardous (TPH)	-
WS13	2.0-3.0	17 05 04	Non-Hazardous (TPH)	-

12.0 Landfill Waste Acceptance Criteria

Waste Acceptance Criteria (WAC) have been agreed by the EC (Council Decision 2003/33/EC) and **are only applicable to material if it is to be disposed as a waste at a landfill facility**. Each individual member state and licensed operators of a licence landfill 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 level of TOC detected in the sample TP-09 (0.5m) exceeded the inert WAC for TOC.

The level of mineral oil detected in the samples WS-04 (1-2m) and TP-14 between 1m and 3m exceeded the inert WAC for mineral oil.

All other parameters were within the inert WAC. The WAC data is presented in Appendix 11.

13.0 Whole Waste Body Classification

The HazWasteOnLine™ Tool analysis combined with the WAC analysis will deliver a waste classification of an individual sample. The whole waste classification assessment attempts to classify the waste as a whole rather than as individual samples using statistical methods. The assessment highlights limit failures which are not representative of the majority of the results and under most circumstances would be considered as statistical outliers, that is to say that the primary objective is to demonstrate that the waste population being considered is below a specific WAC limit (to a pre-defined level of confidence), primarily by demonstrating that specific limit exceedances are not representative of the whole population.

Waste operators and waste producers might assume that a waste material is within a certain waste classification if any of the individual samples collected from the material exceeds a particular threshold. Alternatively, the waste operator or producer may consider the waste body as a whole and apply statistical analysis such as those set out in Appendix 2 of Environment Agency (2013). *Waste Sampling and Testing for Disposal to Landfill*. The guidance outlines a methodology for a statistical analysis which relates the classification of individual samples to the classification of the waste as a whole.

This method is based on a sample median (50th percentile) and a probabilistic demonstration that:

- At least 95% of samples are within the WAC limit; and
- When the analytical variation is taken into account, average concentrations are within the limit for each substance. For waste acceptance purposes where, statistical techniques are being used, the primary objective is to demonstrate that the waste population being considered is below the WAC limit (to a pre-defined level of confidence), primarily by demonstrating that any limit exceedances are not representative of the whole population.

Where the average waste concentration and the 95th percentile ranked samples, concentration is below the WAC limit, a case could be made that the waste population being considered is acceptable for disposal by landfilling.

The statistical analysis was carried out for the samples collected from the naturally occurring deposits which satisfy the LoW code 17 05 04 (Appendix 12).

For the TOC detection greater than the inert WAC in the natural deposits, the upper 90% confidence values were below the respective inert waste thresholds, and therefore there is 95% confidence that the 50th percentile concentration is below the inert waste threshold for each of these parameters. The average TOC concentration was also below the inert WAC threshold.

The natural deposits to be removed from site can therefore be considered to comply with the inert WAC in terms of TOC.

Following the procedure set out in the guidance the natural deposits as a whole if excavated in bulk will meet the inert WAC threshold for TOC.

The acceptance of the material at such a facility is at the discretion of the waste facility operator or the EPA.

14.0 Suitable for Use Assessment

GII assessed the soils data collected from the window samples against the LQM/CIEH 'Suitable 4 Use Levels' (S4ULs)⁹. 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 inputs used in the derivation of the S4ULs are presented and discussed in the publication.

The proposed use of the site is currently unknown but has been assumed that the site will be in residential use potentially with gardens and homegrown produce. As such GII have applied the "Residential with Homegrown Produce" S4ULs.

A summary of the S4UL comparison is as follows:

TPH:

The level of TPH detected in TP-14 in all samples up to 3m in depth exceeded the S4UL for TPH.

⁹ LQM/CIEH 'Suitable 4 Use Levels' (S4ULs). Copyright Land Quality Management Limited reproduced with permission; Publication Number S4UL3746. All rights reserved.

The level of TPH detected in WS-11 between 1m and 3m exceeded the S4UL for TPH.

The levels of TPH detected in WS-11 and TP-14 exceeded the hazardous threshold as outlined in Section 10.0.

BTEX:

Elevated levels of BTEX compounds were detected in multiple samples, however only the level of benzene detected in WS-11 (1-3m) exceeded the S4UL for benzene.

PAH:

The levels of PAH where detected were within the Residential with Homegrown Produce S4ULs.

Metals:

All metals were within the Residential with Homegrown Produce S4ULs.

A full summary of the S4UL data is presented in Appendix 13.

15.0 Hydrocarbon Impacted Area

An area of the site adjacent to the neighbouring filling station had been highlighted in the 2018 AWN report as being impacted by hydrocarbons. The AWN report identified that the filling station was the likely source of the impact. GII installed 13 window sample boreholes within the impacted area to delineate the vertical and lateral extent of the contamination plume. A total of 42 soil samples were analysed for total petroleum hydrocarbons, benzene, toluene, ethylbenzene, xylene and MTBE. The laboratory also carried out and interpretation of any detection of hydrocarbons to offer an opinion on the likely source of the hydrocarbons. The extent of the subsoils where elevated levels of TPH and or BTEX and MTBE compounds were detected is highlighted in Figures 17 to 20. The figures highlight the extent of the soils which have been impacted with either TPH, BTEX and MTBE and any combination thereof. The total extent of the area is approximately 1,800m². The figures highlight the extent of the impacted soils between 0m and 3m in total and also in individual metre intervals.

The highest levels of BTEX and MTBE were recorded at WS-11 between 1m and 3m BGL. This location is directly adjacent to the southern boundary of the filling station. THP levels of >3,000mg/kg were detected at WS-11.

The highest recorded levels of TPH was at TP-14 where they exceeded 5,000mg/kg.

The concentrations of TPH and BTEX reduce with the distance downgradient from the neighbouring filling station.

16.0 Source of Hydrocarbon Impact

The extent of the hydrocarbon impacted material has been delineated as highlighted in Figures 17 to 20. The source of the impact as proposed in the AWN report is the neighbouring filling station. The concentrations of TPH, BTEX and MTBE can be seen to vary with depth and distance downgradient from the neighbouring filling station. The reduction in degree of impact moving downgradient and away from the filling station also suggests that the impact is related to the filling station.

The variation in concentrations with depth is thought to be related to the heterogeneity of the subsoils and the depth at which the contaminated material was introduced to the subsoils. The detection of elevated levels of TPH, MTBE and BTEX at lower levels (up to 3m) in TP-14 and WS-11 and an absence of contamination in these sample locations between 0m and 1m is thought to be related to leaking fuel (diesel and petroleum) from underground storage tanks in the filling station.

Where there is a detection of TPH in the soil samples the laboratory offers an interpretation of the data which suggests a source material for the impact. In the case of WS-04, 08, 11 and 10 the laboratory identified a diesel source, while in WS-08 and 11 there is also a petroleum source.

The presence of MTBE, which is an anti-knocking additive in petroleum, was detected at very elevated levels at WS-11 and at elevated levels in WS-04, 07, 08 and TP-14. The presence of MTBE is suggestive of petroleum being introduced into the subsoils. The high level of MBTE detected, particularly in WS-11, also indicates that the source of the contamination is related directly to the neighbouring filling station.

17.0 Site Remediation

The material at TP-14 and WS-11 have been sufficiently impacted by the neighbouring filling station that the levels of TPH and benzene are now present at levels greater than the S4UL for residential development. These materials in the event of development for residential use should be excavated and removed from site.

The waste classification testing and analysis has shown that these materials at TP-14 and WS-11 between 1m and 3m if excavated and removed from site should be classified as and disposed of as hazardous (Figure 21). Assuming a 5m a radius at each pint and a thickness of 2m there are up to 315m³ of hazardous material at these locations. If excavated this volume may increase during the excavation process.

The total estimated volume of materials which has been impacted to some degree by either TPH and or BTEX and MTBE is 2,060m³.

18.0 Asbestos

The site is underlain by natural material without made ground or fill materials. As such asbestos was not expected be present in the materials on site. Asbestos was **not** detected in any of the samples analysed.

19.0 Conclusions & Recommendations

19.1. Conclusions

19.1.1. Soil Quality

Following the assessment of the chemical data against the S4ULs the materials at WS-11 and TP-14 have been shown to be unsuitable for retention on site in the event that the lands are to be developed as residential.

The remainder of the material across the site does not present a risk to the future use or users of the site, assuming that the site's future use is residential.

The area directly to the south and downgradient of the filling station has been impacted by diesel and petroleum which is assumed to have leaked from the filling stations underground fuel storage tanks over an unknown period of time. The total area which has been contaminated to any degree is approximately 1,800m². The vertical extent of the contamination is to the top of the underlying bedrock which is proven to be approximately 3m in that section of the site. The total estimated volume of materials which has been impacted to some degree by either TPH and or BTEX and MTBE is 2,060m³.

19.1.2. Groundwater and Surface Water

There are elevated levels of TPH detected in the groundwater directly downgradient of the filling station and the impacted subsoil area at BH-11. The extent of the contamination is limited and appears to be confined to the area of impacted subsoils.

Surface water sampling was not carried out and the risk to surface water associated with the site is low.

19.1.3. Waste Classification

Based on the results of the HazWasteOnLine™ tool the materials encountered at WS-11 and TP-14 can be considered to be hazardous if removed from site as waste.

The remainder of the materials encountered and sampled are classified as non-hazardous.

19.1.4. Waste Acceptance

The materials within the hydrocarbon impacted area at WS-11 and TP-14 are classified hazardous and as such are not suitable for comparison with the WAC. The material at WS-4 exceeded the inert WAC and are suitable for acceptance at a non-hazardous facility.

The natural subsoils outside the impacted area have been assessed and are suitable for removal to a suitably licenced inert facility under the LoW code 17 05 04.

19.2. Recommendations

The 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.

19.2.1. Groundwater

Due to relatively high level of groundwater encountered in the boreholes there may be a need to dewater the basement excavation during construction. However, due to the low permeability of the subsoils and the classification of the bedrock as a poor aquifer it is likely that there will not be significant quantities of water which will need to be pumped in the case of dewatering.

The water quality in BH-08, which is located within the proposed basement excavation, did not indicate any hydrocarbon impact. Despite this the act of pumping during any potential dewatering may affect an induced groundwater flow direction from the impacted area towards the excavation. The effect of this may be that the groundwater which may be pumped from the excavation might become impacted with hydrocarbons which may then be a breach of any agreed discharge requirements.

Monitoring of the groundwater discharge quality in the event of dewatering is recommended.

19.2.2. Subsoil Removal

The subsoils which exceed the residential S4ULs should be excavated and removed from site. These areas coincide with the materials which have been classified as hazardous waste.

19.2.3. 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 subsoil 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.

An experienced waste management company should be engaged to arrange the removal of any excavated subsoils to an appropriately licensed facility under the List of Waste code 17 05 04 (soil and stones other than those mentioned in 17 05 03). Where during excavation there is observed to be more than 2% anthropogenic material present then the LoW codes 17 09 04 (mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03) shall be applied.

The hazardous materials at TP-14 and WS-11 where removed from site should be removed under the LoW code 17 05 03 (soil and stones containing hazardous substances) to a suitable licenced facility.

20.0 References

Environment Agency (2013). *Waste Sampling and Testing for Disposal to Landfill*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/321207/Sampling_and_testing_of_waste_for_landfill.pdf

Environment Agency (2015). *Technical Guidance WM3 - Guidance on the classification and assessment of waste (1st edition 2015) Technical Guidance WM3*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/427077/LIT_10121.pdf

Environmental Protection Agency (EPA) (2014). Letter to Licences *Re: Waste Classification & Haz Waste On-Line™*. Available at: <https://www.hazwasteonline.com/marketing/media/downloads/EPA%20Waste%20classification%20communication%2020may14.pdf>

Environmental Protection Agency (EPA) (2015). *Waste Classification List of Waste & Determining if Waste is Hazardous or Non-hazardous*. Available at: https://www.epa.ie/pubs/reports/waste/stats/wasteclassification/EPA_Waste_Classification_2015_Web.pdf

Environmental Protection Agency (EPA) (2017). Draft Guidance Note on Soil Recovery Waste Acceptance Criteria. Available at: <http://www.epa.ie/pubs/consultation/soilrecoveryconsultation/>

Environmental Protection Agency (EPA) (2003). *TOWARDS SETTING GUIDELINE VALUES FOR THE PROTECTION OF GROUNDWATER IN IRELAND*. Available at: https://www.epa.ie/pubs/reports/water/ground/EPA_ground_water_guideline_values_interim_report.pdf

S.I. No. 9 of 2010 *EUROPEAN COMMUNITIES ENVIRONMENTAL OBJECTIVES (GROUNDWATER) REGULATIONS, 2010*. Available at: <http://www.irishstatutebook.ie/eli/2010/si/9/made/en/pdf>

AWN Consulting, *Environmental Due Diligence - Cornelscourt, Co. Dublin (September 2018)*.

APPENDIX 1 – Figures



- Site Location
- Site Boundary

Client:

Project Code:
8354-01-19

Project Title:
Cornelscourt

Drawing Title:
Figure 1 Site Location

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

0 10 20 30 40 50 60 m

Drawn By: BS Date: 14/02/2019



 Site Boundary

Client:



Project Code:

8354-01-19

Project Title:

Cornelscourt

Drawing Title:

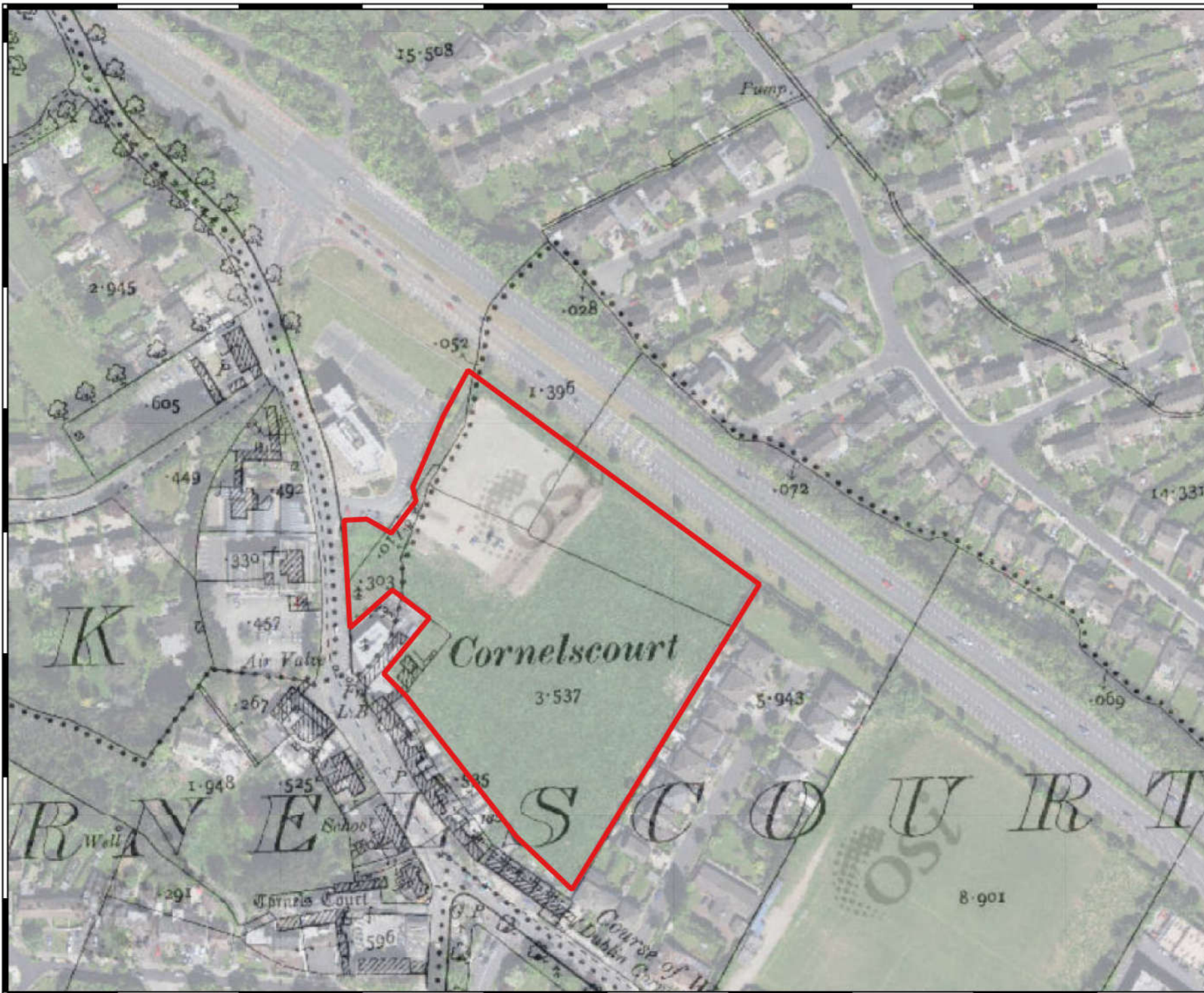
Figure 2 6-inch map



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Catherinstown House,
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Newcastle, Co. Dublin
www.gii.ie 01-6015175/5176

Drawn By:
BS

Date:
11/03/2019



 Site Boundary

Client:



Project Code:
8354-01-19

Project Title:
Cornelscourt

Drawing Title:
Figure 3 OSI 25-Inch Maps



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Drawn By:
BS

Date:
11/03/2019



 Site Boundary

Client:



Project Code:

8354-01-19

Project Title:

Cornelscourt

Drawing Title:

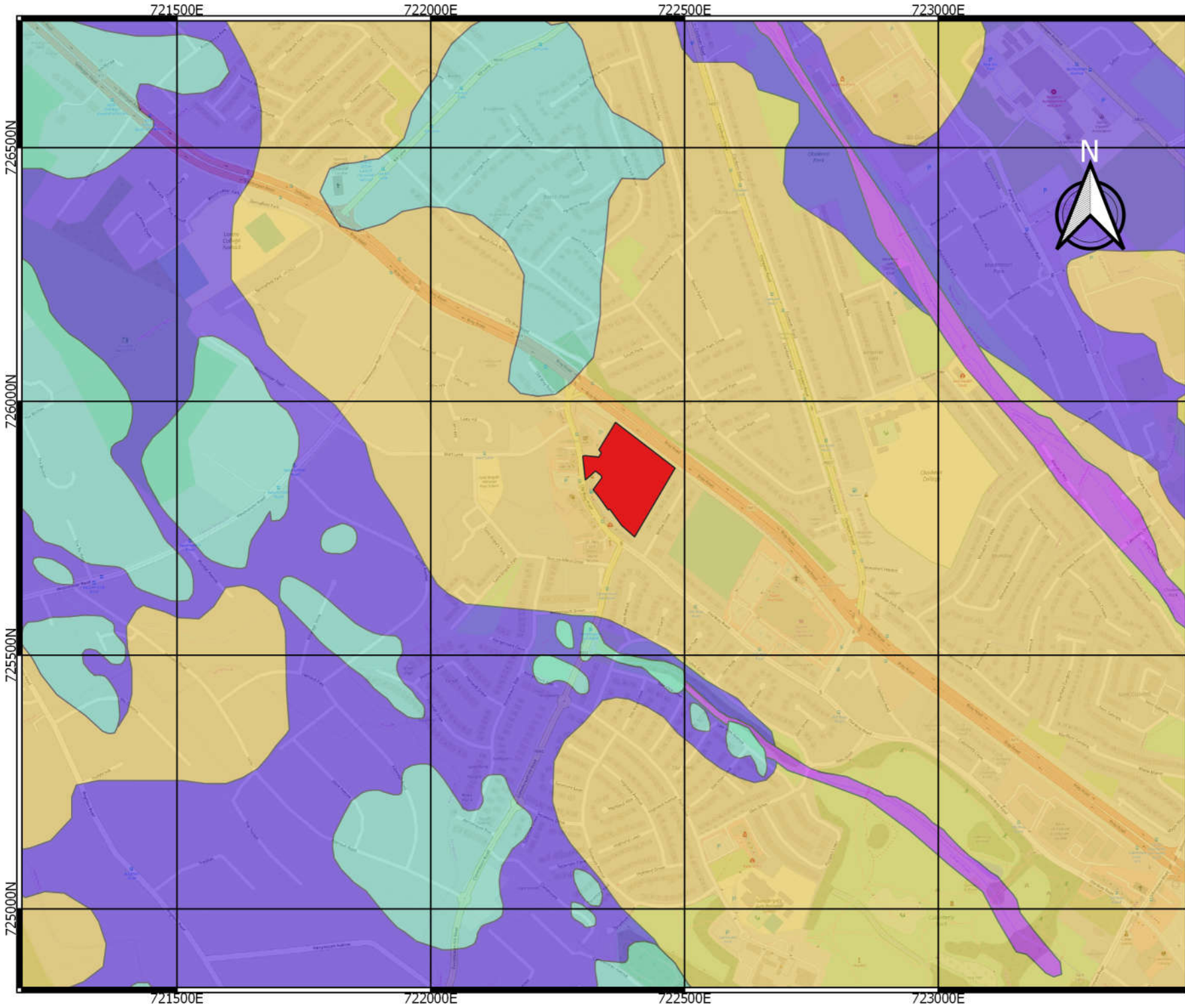
Figure 4 2016 Aerial Photo



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Drawn By:
BS

Date:
11/03/2019



721500E

722000E

722500E

723000E

726500N

726000N

725500N

725000N

721500E

722000E

722500E

723000E

- Site Location
- Alluvium
- Rock
- Granite Till
- Limestone Till



Client:



Project Code:

8354-01-19

Project Title:

Cornelscourt

Drawing Title:

Figure 5 Quaternary Geology



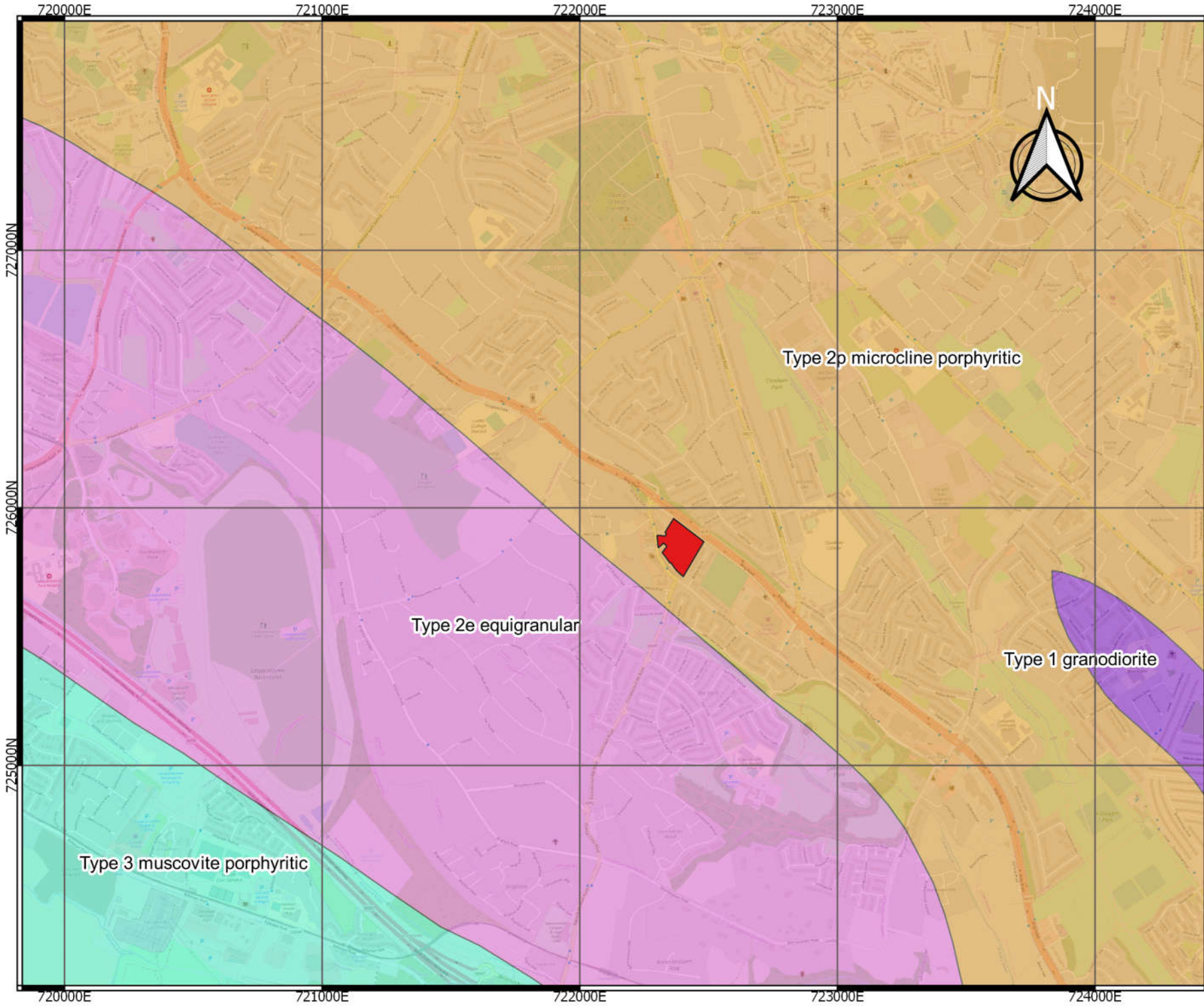
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Drawn By:
BS

Date:
14/02/2019



- Site Boundary
- Type 1 granodiorite
- Type 2e equigranular
- Type 2p microcline por.
- Type 3 muscovite por.

Client:



Project Code:
8354-01-19

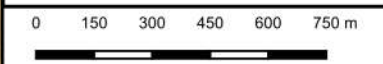
Project Title:
Cornelscourt

Drawing Title:
Figure 6 Bedrock Geology

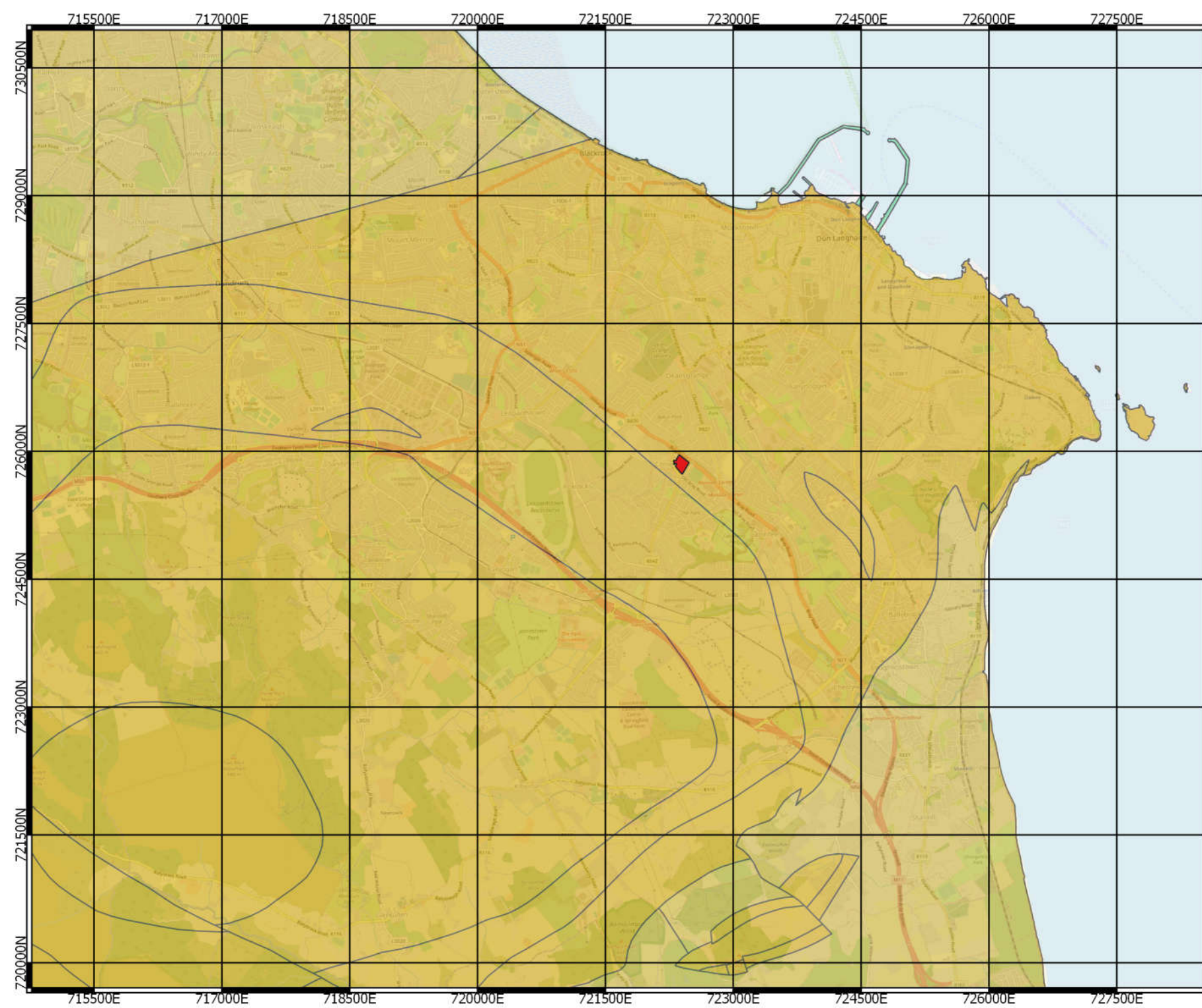


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Drawn By: BS	Date: 14/02/2019
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- Site Boundary
- LI
- PI

Client:

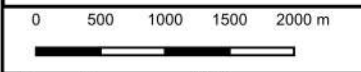
Project Code:
8354-01-19

Project Title:
Cornelscourt

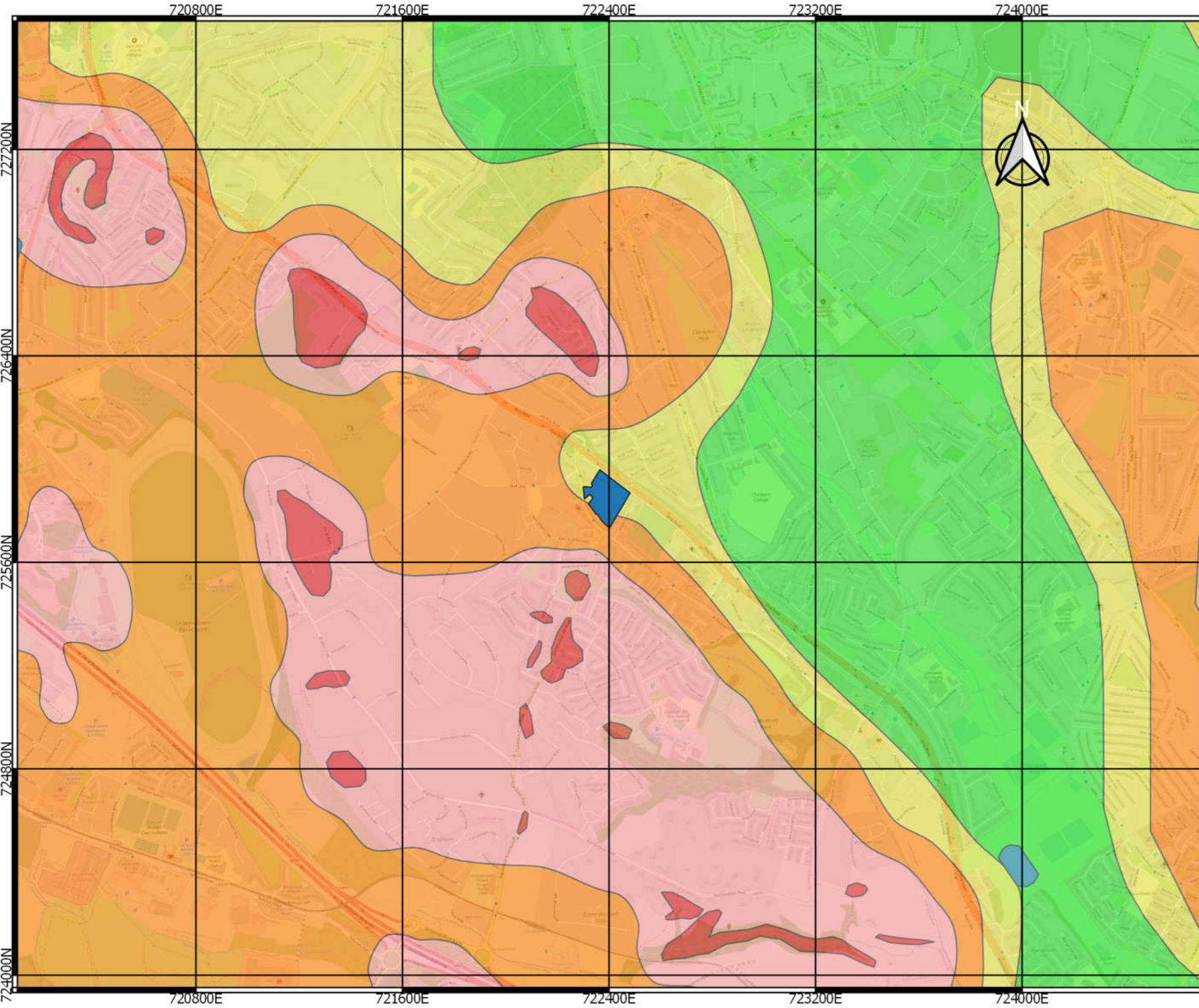
Drawing Title:
Figure 7 Aquifer Category



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www.gii.ie 01-6015175/5176




Drawn By: BS	Date: 14/02/2019
-----------------	---------------------



-  Site Boundary
-  Extreme
-  High
-  L
-  Moderate
-  Rock at Surface

Client:



Project Code:
8354-01-19

Project Title:
Cornelscourt

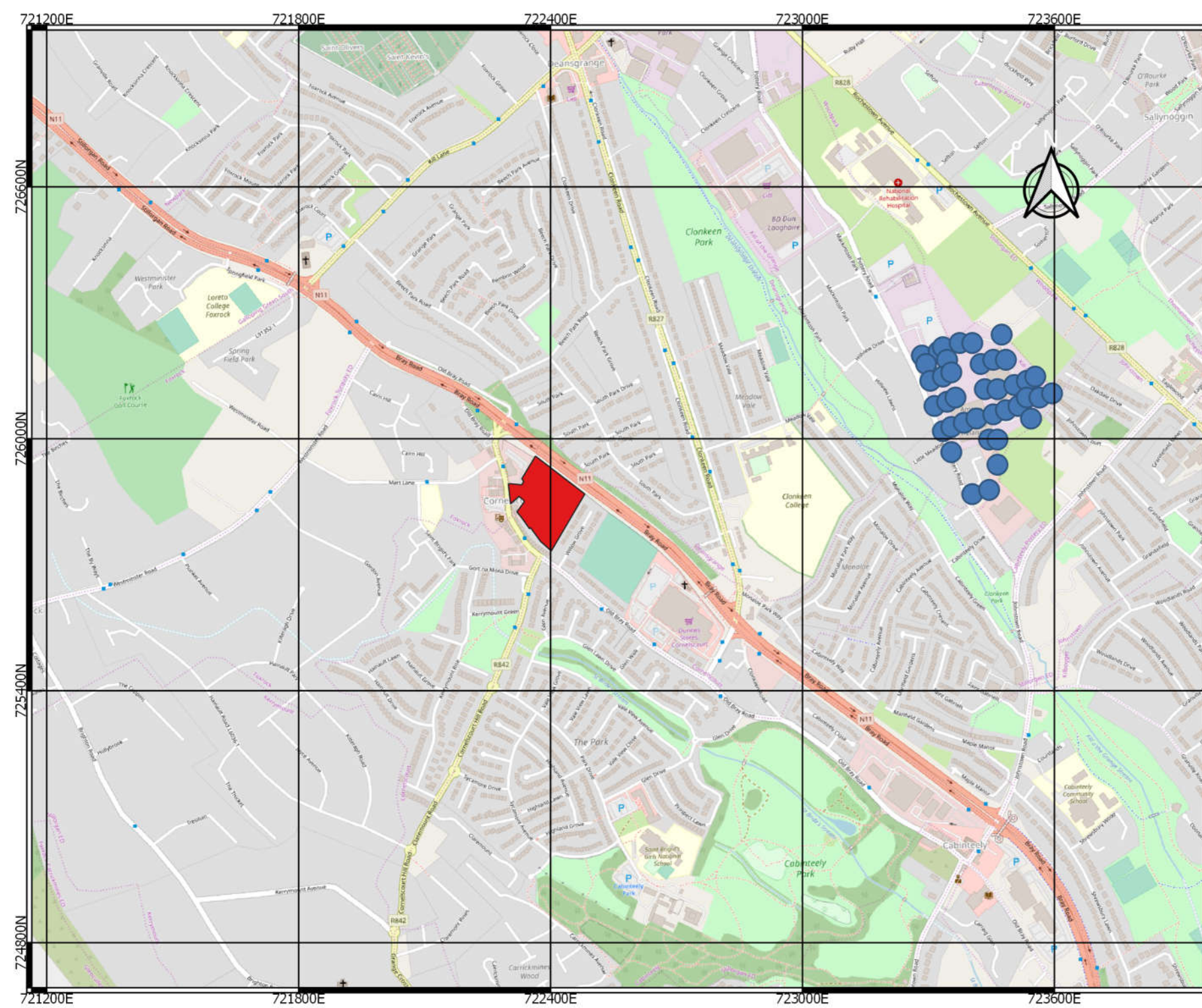
Drawing Title:
Figure 8 Aquifer Vulnerability



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0 200 400 600 800 m

Drawn By: BS Date: 14/02/2019



- Site Boundary
- Well/Springs

Client:

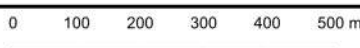
Project Code:
8354-01-19

Project Title:
Cornels Court

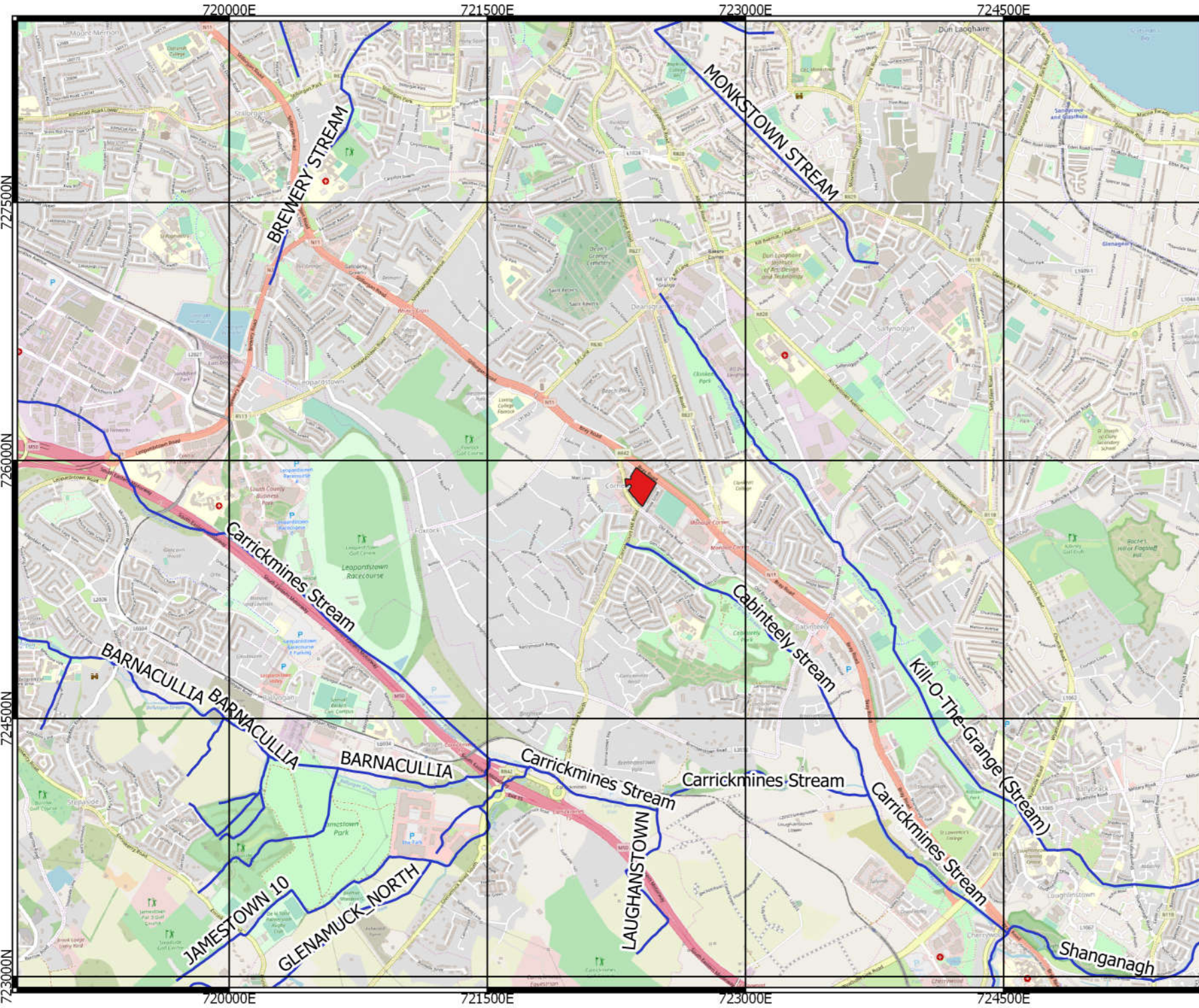
Drawing Title:
Figure 9 Groundwater wells,
springs and Source Protection
Zones



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Hazelhatch Road,
Newcastle, Co. Dublin
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Drawn By: BS	Date: 14/02/2019
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 Site Boundary

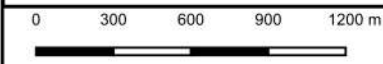
Client:


Project Code:
 8354-01-19

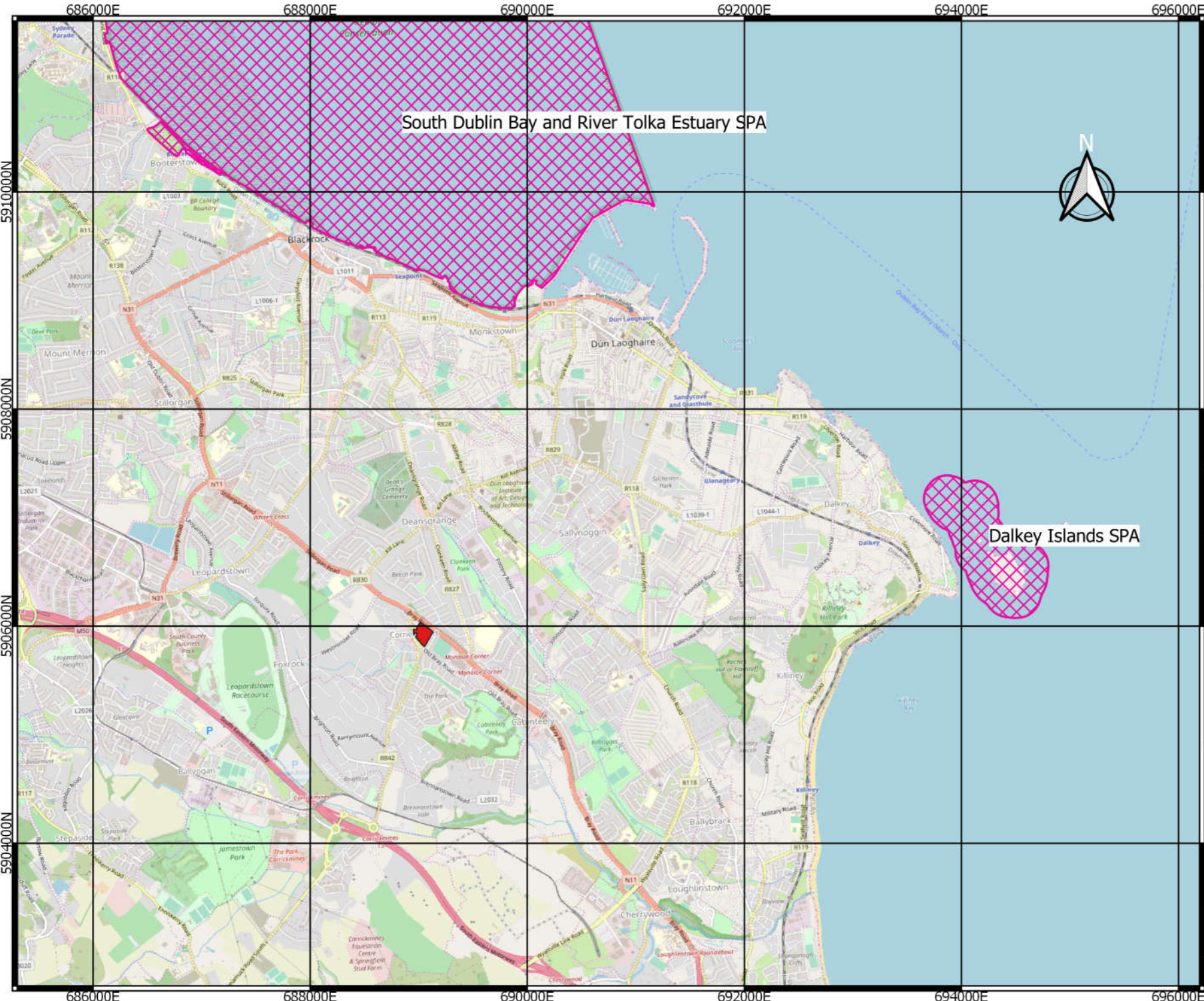
Project Title:
 Cornelscourt

Drawing Title:
 Figure 4 Aquifer Category


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Date: 14/02/2019



-  Site Boundary
-  SPA



Client:



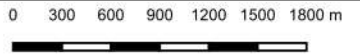
Project Code:
8354-01-19

Project Title:
Cornelscourt

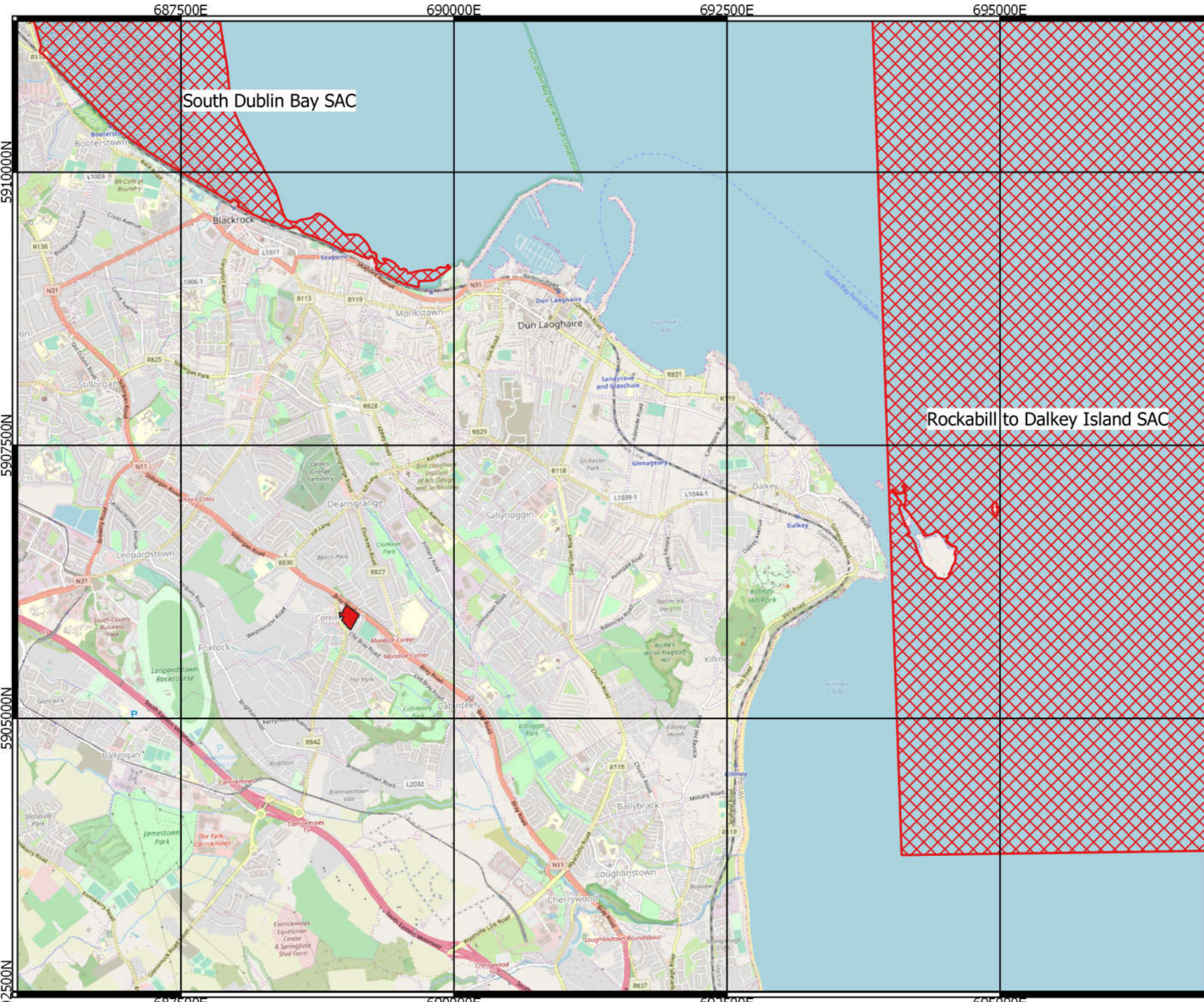
Drawing Title:
Figure 11 Special Protected Area



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Date: 14/02/2019



Site Boundary
 SAC

Client:



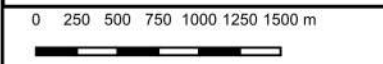
Project Code:
8354-01-19

Project Title:
Cornelscourt

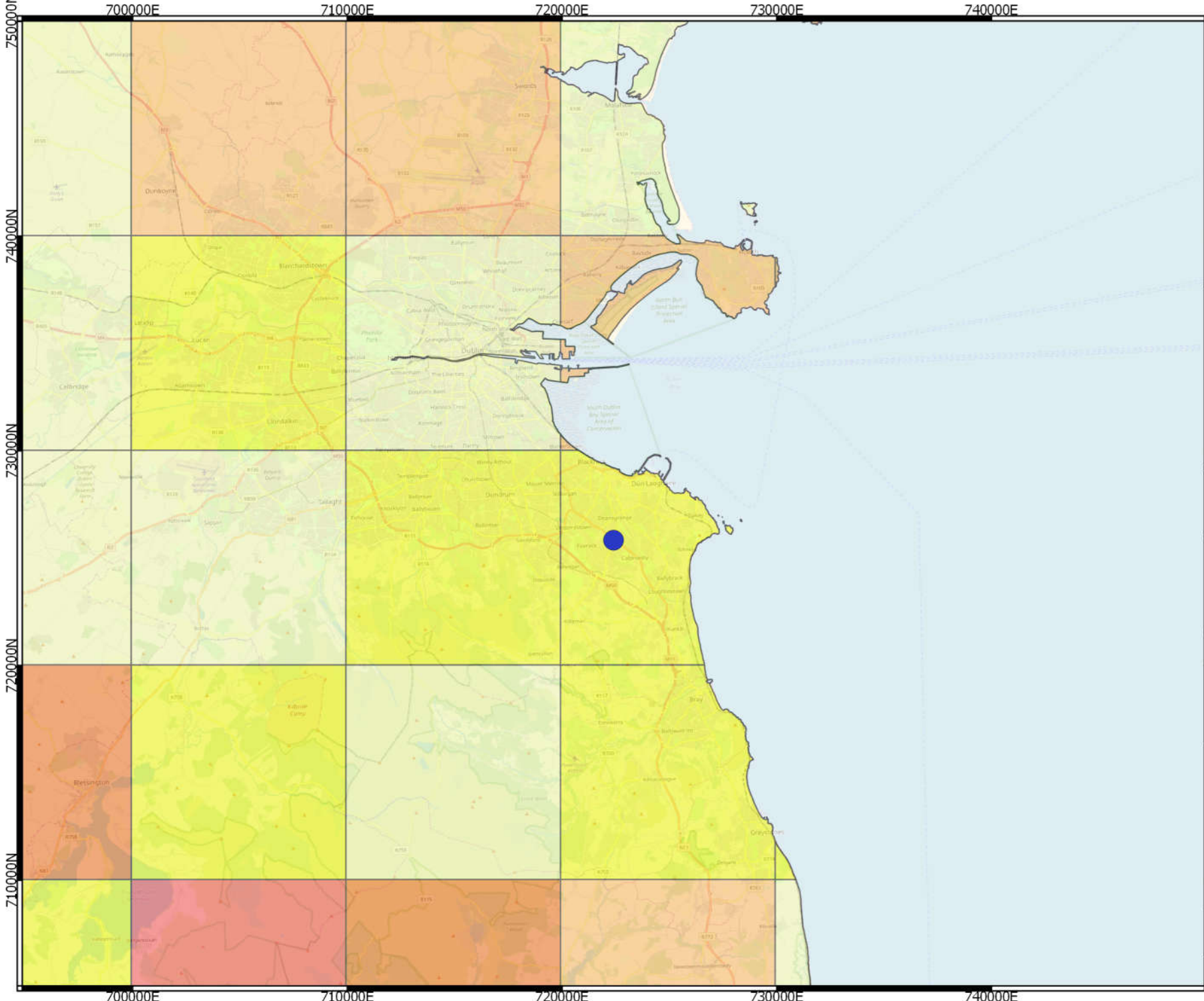
Drawing Title:
Figure 12 Special Area of Conservation



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● Site Location

RADON LEVELS

- <1%
- 1% - 5%
- 5% - 10%
- 10% - 20%
- >20%

Client:



Project Code:

8354-01-19

Project Title:

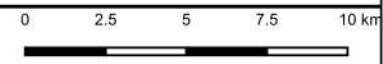
Cornelscourt

Drawing Title:

Figure 13 Radon Levels



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- Site Boundary
- Trial Pit
- CBR
- Infiltration Test

Client:



Project Code:
8354-01-19


Project Title:
Cornelscourt

Drawing Title:
Figure 14 Trial Pit, CRB and Infiltration Test Locations



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0 10 20 30 40 50 60 m



Drawn By: BS	Date: 14/02/2019
-----------------	---------------------



-  Site Boundary
-  Borehole



Client:



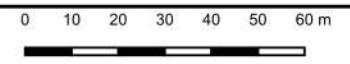
Project Code:
8354-01-19

Project Title:
Cornelscourt

Drawing Title:
Figure 15 Borehole Locations



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Drawn By:
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14/02/2019



 Site Boundary

 WS Location



Client:



Project Code:
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Project Title:
Cornelscourt

Drawing Title:
Figure 16 Window Sample Locations








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-  Site Boundary
-  Contaminated Soils
-  WS Location
-  TP Locations

N


Client:



Project Code:
8354-01-19

Project Title:
Cornelscourt

Drawing Title:
Figure 17 Extent of Contaminated Soil Between 0m and 3m







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0 10 20 30 m



Drawn By: BS Date: 19/03/2019



-  Site Boundary
-  Contaminated Soils
-  WS Location
-  TP Locations

N


Client:



Project Code:
8354-01-19

Project Title:
Cornelscourt

Drawing Title:
Figure 18 Extent of Contaminated Soil Between 0m and 1m



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www.gii.ie 01-6015175/5176

0 10 20 30 m


Drawn By: BS Date: 19/03/2019



- Site Boundary
- Contaminated Soils
- WS Location
- TP Locations

N

Client:

Project Code:
8354-01-19

Project Title:
Cornelscourt

Drawing Title:
Figure 19 Extent of Contaminated Soil Between 1m and 2m

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0 10 20 30 m





Drawn By: BS	Date: 19/03/2019
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722250E 722300E 722350E 722400E

725900N 725850N 725800N


722250E 722300E 722350E 722400E



-  Site Boundary
-  Contaminated Soil
-  WS Location
-  TP Locations

N


Client:



Project Code:
8354-01-19

Project Title:
Cornelscourt

Drawing Title:
Figure 20 Extent of Contaminated Soil Between 2m and 3m



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0 10 20 30 m


Drawn By: BS Date: 19/03/2019

722250E 722300E 722350E 722400E






725900N

725850N


725800N

722250E 722300E 722350E 722400E



-  Site Boundary
-  Contaminated Soil
-  Haz Hotspots
-  WS Location
-  TP Locations

Client:



Project Code:
8354-01-19


Project Title:
Cornelscourt

Drawing Title:
Figure 21 Hazardous Waste Hotspots



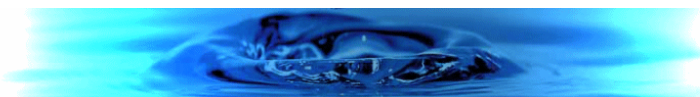
Ground Investigations Ireland Ltd.
Catherinstown House,
Hazelhatch Road,
Newcastle, Co. Dublin
www.gii.ie 01-6015175/5176

0 10 20 30 m

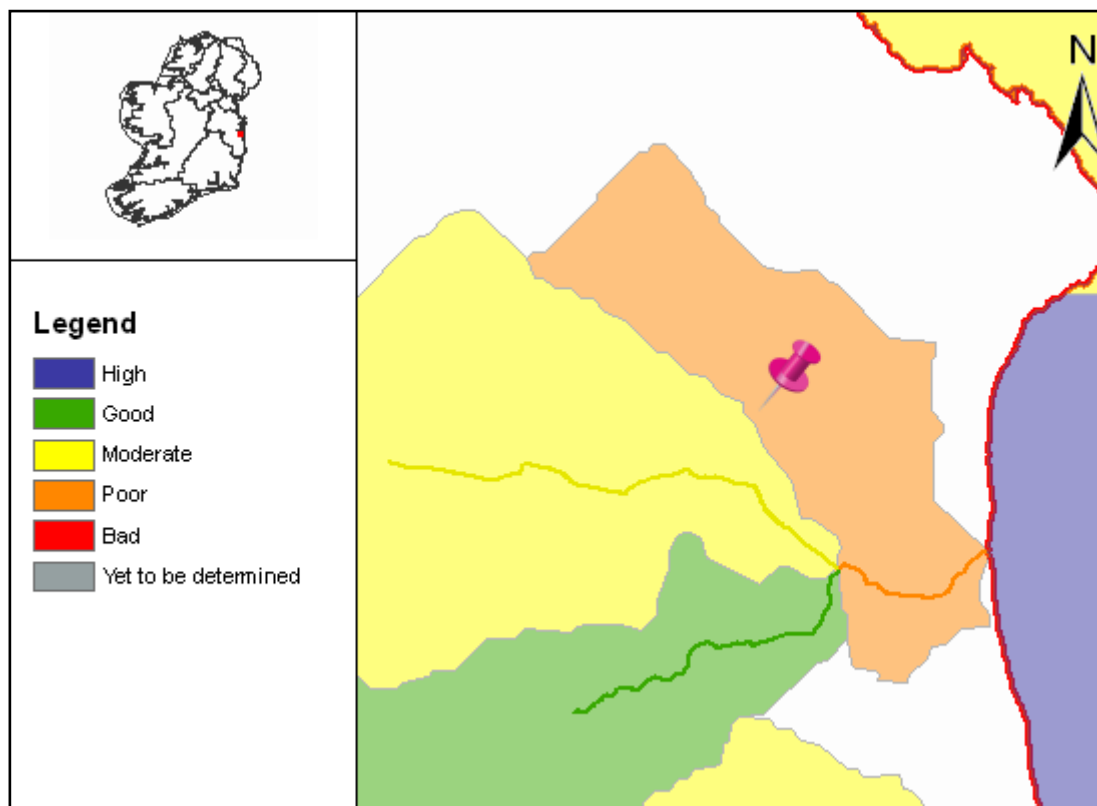


Drawn By: BS Date: 19/03/2019

APPENDIX 2 – WFD Reports



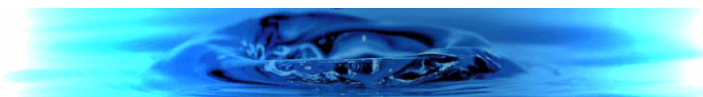
Full Report for Waterbody Loughlinstown Lower



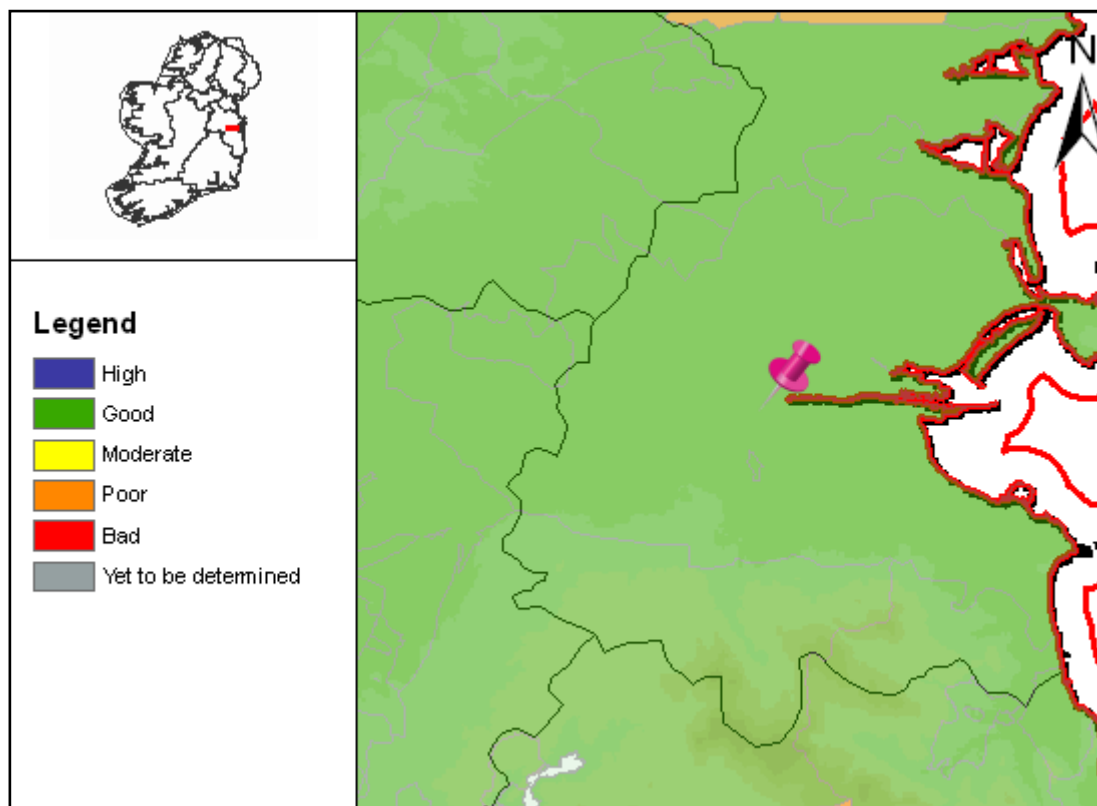
River Basin Management Plans (RBMPs) have been published for all River Basin Districts in Ireland in accordance with the requirements of the Water Framework Directive. The WaterMaps viewer is an integral part of the River Basin Management Plan and provides access to information at individual waterbody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



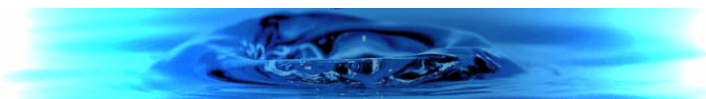
Full Report for Waterbody Dublin Urban



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.



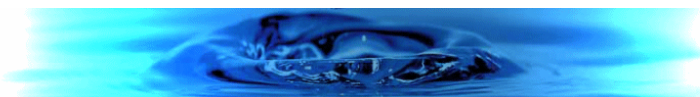
Summary Information:

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



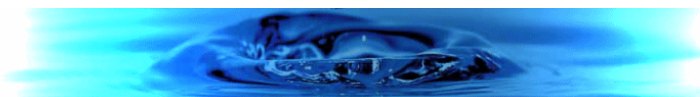
Status Element Description		Result
Status information		
INS	Status associated with saline intrusion into groundwater	N/A
DWS	Status associated with exceedances of water quality above specific standards	N/A
DS	Chemical status of groundwater due to pressure from diffuse sources of pollution	N/A
CLS	Chemical 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).

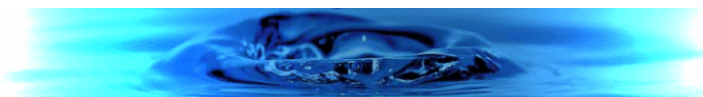


Risk Report

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

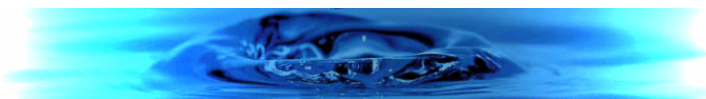
Extended timescales have been set for certain waters due to technical, economic, environmental or recovery constraints. Extended timescales are usually of one planning cycle (6 years, to 2021) but in some cases are two planning cycles (to 2027).

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.



Summary Information:

Water Management Unit: IE_EA_Shanganagh

WaterBody Category: River Waterbody

WaterBody Name: Loughlinstown Lower

WaterBody Code: IE_EA_10_1570

Overall Status: Poor

Overall Objective: Restore_2021

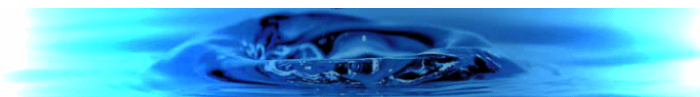
Overall Risk: 1a At Risk

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.



Status Report	
Water Management Unit:	IE_EA_Shanganagh
WaterBody Category:	River Waterbody
WaterBody Name:	Loughlinstown Lower
WaterBody Code:	IE_EA_10_1570
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	N/A
HYM	Hydromorphology status	Good
FIS	Fish status	N/A
SP	Specific Pollutants status (SP)	N/A
ES	Overall ecological status	Poor
CS	Overall chemical status (PAS)	n/a
EXT	Extrapolated status	N/A
MON	Monitored water body	YES
DON	Donor water bodies	N/A

n/a - not assessed

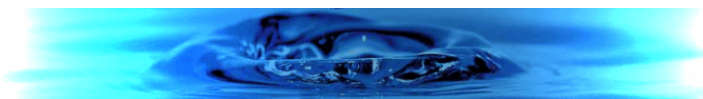
Status

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 13/03/2019

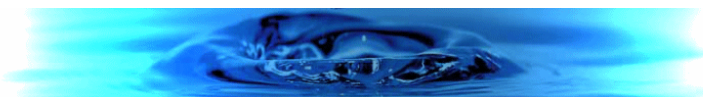


Risk Report

Water Management Unit: IE_EA_Shanganagh
WaterBody Category: River Waterbody
WaterBody Name: Loughlinstown Lower
WaterBody Code: IE_EA_10_1570
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	2a	Probably Not At Risk
RD2b	Road Wash - Total Zinc	2a	Probably Not At Risk
RD2c	Road Wash - Total Hydrocarbons	1b	Probably At Risk
RD3	Railways	2b	Not At Risk
RD4a	Forestry - Acidification (2008)	2b	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	2b	Not 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

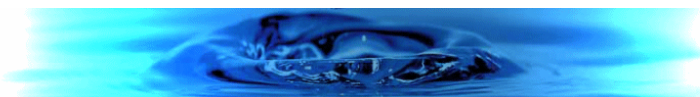


Point Risk Sources		
RP1	WWTPs (2008)	2b Not At Risk
RP2	CSOs	2a Probably Not At Risk
RP3	IPPCs (2008)	2b Not At Risk
RP4	Section 4s (2008)	2b Not At Risk
RP5	WTPs/Mines/Quarries/Landfills	N/A
RPO	Overall Risk from Point Sources - Worst Case (2008)	2a Probably Not At Risk
Q Value		
Q	EPA Q rating and 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_Shanganagh
WaterBody Category: River Waterbody
WaterBody Name: Loughlinstown Lower
WaterBody Code: IE_EA_10_1570
Overall Objective: Restore_2021
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	Restore_2021
OB5	Northern Ireland Environment Agency objective	No Status
OBO	Overall objectives	Restore_2021

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).

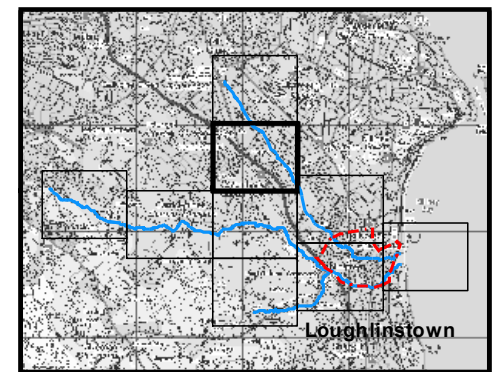
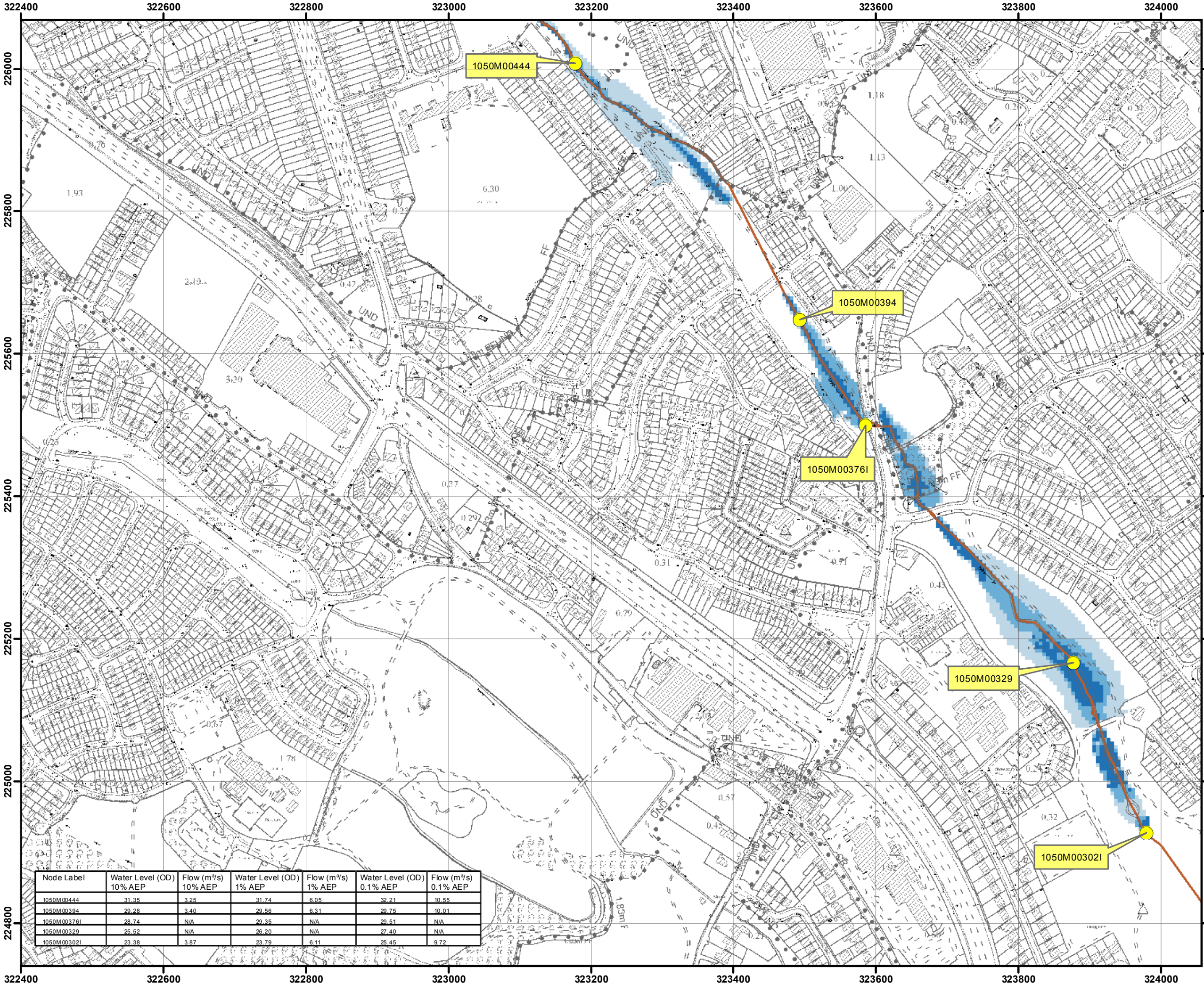
Objectives

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 –Flood Maps



IMPORTANT USER NOTE:
THE VIEWER OF THIS MAP SHOULD REFER TO THE DISCLAIMER, GUIDANCE NOTES AND CONDITIONS OF USE THAT ACCOMPANY THIS MAP.

- Legend**
- 10% Fluvial AEP Event
 - 1% Fluvial AEP Event
 - 0.1% Fluvial AEP Event
 - Modelled River Centreline
 - AFA Extents
 - Embankment
 - Wall
 - Defended Area
 - Standard of Protection of Flood Defence (Walls / Embankments)
 - 1% AEP
 - Node Point
 - Node ID

FINAL

REV: 01	NOTE: Removal of Embankments (Pg 5)	DATE: 03/11/17
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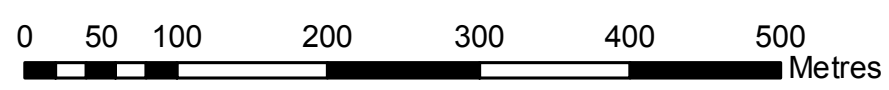


OPW
Oifig na hOibríochtaí Poblí
The Office of Public Works

RPS

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Node Label	10% AEP		1% AEP		0.1% AEP	
	Water Level (OD)	Flow (m³/s)	Water Level (OD)	Flow (m³/s)	Water Level (OD)	Flow (m³/s)
1050M00444	31.35	3.25	31.74	6.05	32.21	10.55
1050M00394	29.28	3.40	29.56	6.31	29.75	10.01
1050M003761	28.74	N/A	29.35	N/A	29.51	N/A
1050M00329	25.52	N/A	26.20	N/A	27.40	N/A
1050M003021	23.38	3.87	23.79	6.11	25.45	9.72



Map: Deansgrange Stream Fluvial Flood Extents	
Map Type: EXTENT	
Source: FLUVIAL	
Map Area: HPW	
Scenario: CURRENT	
Drawn By: C.C.	Date: 3 November 2017
Checked By: A.S.	Date: 3 November 2017
Approved By: G.G.	Date: 3 November 2017
Drawing No.: E10LOU_EXFCD_F1_08	
Map Series: Page 8 of 9	
Drawing Scale: 1:5,000 @A3	

APPENDIX 4 – Historical Report

Environmental Due Dilligence - Cornelscourt, Co. Dublin.

Technical Report Prepared For

**Dunnes Stores
46-50 South Great George's
Street,
Dublin 2.**

Technical Report Prepared By

**Colm Driver BSc MSc
Teri Hayes BSc MSc PGeo**

Our Reference

TH/18/10021WR02

Date Of Issue

16th September 2018



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T Donnelly, T Hayes, D Kelly, E Porter

Document History

Document Reference		Original Issue Date	
TH/18/10021WR02		16 th Sept 2018	
Revision Level	Revision Date	Description	Sections Affected

Record of Approval

Details	Written by	Approved by
Signature		
Name	Colm Driver	Teri Hayes
Title	Environmental Consultant	Director (Water)
Date	16 th Sept 2018	16 th Sept 2018

EXECUTIVE SUMMARY

AWN Consulting Limited (AWN) was requested by Dunnes Stores to carry out a soil quality assessment and risk assessment at the lands in Cornelscourt, Co. Dublin (Figure 1).

The investigation was undertaken to assess the current soil quality beneath the site with a particular focus on the nature of any residual contamination at the site that may be relevant to the redevelopment of the site. Site investigations (seventeen trial pits and four pilot holes), gas sampling and representative soil sample collection were carried out between 9th – 13th March 2018.

Based on the physical observations, gas and laboratory results, a localised area of residual hydrocarbon related contamination was confirmed to be present in the soil at the downgradient boundary of the adjacent petrol station (north west boundary). The extent of area impacted by residual hydrocarbon type contamination is 960m² - (refer to Figure 3). The contamination is most evident within a natural CLAY and the underlying gravelly Clay horizon c. 2mbgl (metres below ground level) and 3.50mbgl, respectively. No free phase hydrocarbons were identified in the shallow water table or soil which indicates an older leak most likely originating from the upgradient petrol station. No evidence of contamination was identified elsewhere on site.

Representative soil samples were analysed for hydrocarbon contaminants of concern. As there are no legislative or guideline soil quality standards in Ireland, results were compared to a UK Generic Assessment Criteria (GAC) derived to be protective of human health and also ecology for a residential and commercial/industrial end use (LQM/CIEH S4ULs). No exceedances of residential or commercial thresholds have been identified for any contaminants of concern (refer to Table 1). To further assess the risk of the localised residual hydrocarbon contamination for future use of the site, AWN completed a detailed quantitative risk assessment (DQRA) using the RISC Model. RISC enables the site-specific assessment of likely risk to site end users and enables the determination of whether or not it is acceptable for soil concentrations to remain in the ground. It was concluded that there is no risk for redevelopment of the site for an apartment type development.

To investigate the suitability of soil for disposal if required as part of any future redevelopment, two soil samples were collected from within the area with residual hydrocarbon contamination and compared against Waste Acceptance Criteria (WAC). The WAC analysis is not indicative of the potential future use of the land for development but rather for identification of suitability for licenced disposal. The results identified that the soil closer to the boundary with petrol station falls under Category D – Hazardous due to the concentration of mineral oil, e.g. <500mg/kg present in the sample. The sample collected further from the petrol station is suitable for classification as Category A – Inert.

In conclusion, most of the site investigated was found to be uncontaminated. However, a localised shallow residual hydrocarbon contamination has been identified in the north west of the property with a likely extent of 960m². Completion of a Generic qualitative risk assessment (GQRA) and Detailed Quantitative Risk Assessment show that the site is suitable for redevelopment for residential or commercial development.

The following table summarises the overall environmental sensitivity of the site in terms of its environs.

Parameter	Comment	Environmental Sensitivity
Site location	The site is located in Cornelscourt, Co. Dublin and is mostly a greenfield site and temporary car park (Figure 1). There are no known previous uses other than agricultural. The site is immediately downgradient of a petrol station and residual hydrocarbon contamination exists in the northwest of the land holding (aerial extent of 960 m ² Figure 3). immediately downgradient of the petrol station. The rest of the land holding was confirmed as uncontaminated. Completion of a GQRA and DQRA has shown that the site in its current state is suitable for redevelopment.	Low - Moderate
Geology and Hydrogeology	The site is underlain by Granite bedrock (which is described by the GSI as a Poor Aquifer (PI). The aquifer vulnerability is indicated as being High based on the shallow depth to rock. There are no existing groundwater wells located in close proximity to the site. The area is generally serviced by public water supply.	Low
Surface Water	The Cabinteely Stream is located approximately 400m to the southwest of the site. There is no direct connectivity between the residual contamination and this receptor.	Low
Flooding	There is no record of flooding at this location.	Low

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	Appendix C Model Input	
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1.0 INTRODUCTION

AWN Consulting Limited (AWN) was requested by Dunnes Stores to carry out a soil quality assessment at the lands in Cornelscourt, Co. Dublin (Figure 1).

Site investigations and representative soil and gas sample collection were carried out between 9th – 13th March 2018 to determine the vertical and horizontal extent of any residual contamination at the site.

This report summarises the data collection and provides an assessment of current soil quality at the site and likely impact of any residual contamination on redevelopment of the site for development.

1.1 Site Description & Outline of Site Investigation

The site is located 10 kilometres outside Dublin City Centre along the N11 Carriageway (Dublin to Wexford road). The site is approximately 3.8km southwest of Dublin Bay and is 1.75 hectares in total. The land is relatively flat in terms of topography with an elevation to ordinance datum (AOD Malin) ranging between 50.9m AOD – 54.6m AOD northwest to southeast. The land holding is highlighted by the red outline in the *figure* below.



Figure 1 Site location map with trial pit locations across the site.

The expected groundwater flow is to the southeast. The nearest watercourse is the Cabinteely Stream approximately 400 metres southeast of the site and flows northwest to southeast. There is no direct linkage between the site and this stream. The aquifer vulnerability is high based on the shallow depth to rock. The land is underlain by granite bedrock which is a Poor Aquifer (Geological Survey of Ireland Classification) and there are no known water supply wells within the area and the area is serviced by public mains.

Figure 1 also presents the location of investigation points. Seventeen (17) trial pits and four (4) pilot holes were constructed as part of the 2018 environmental due diligence assessment of the site at Cornelscourt to facilitate soil logging, vapour sampling and soil sample collection. Trial pit logs were constructed based on the site observations by an AWN scientist during the trial pit exercise and are presented in Appendix A.

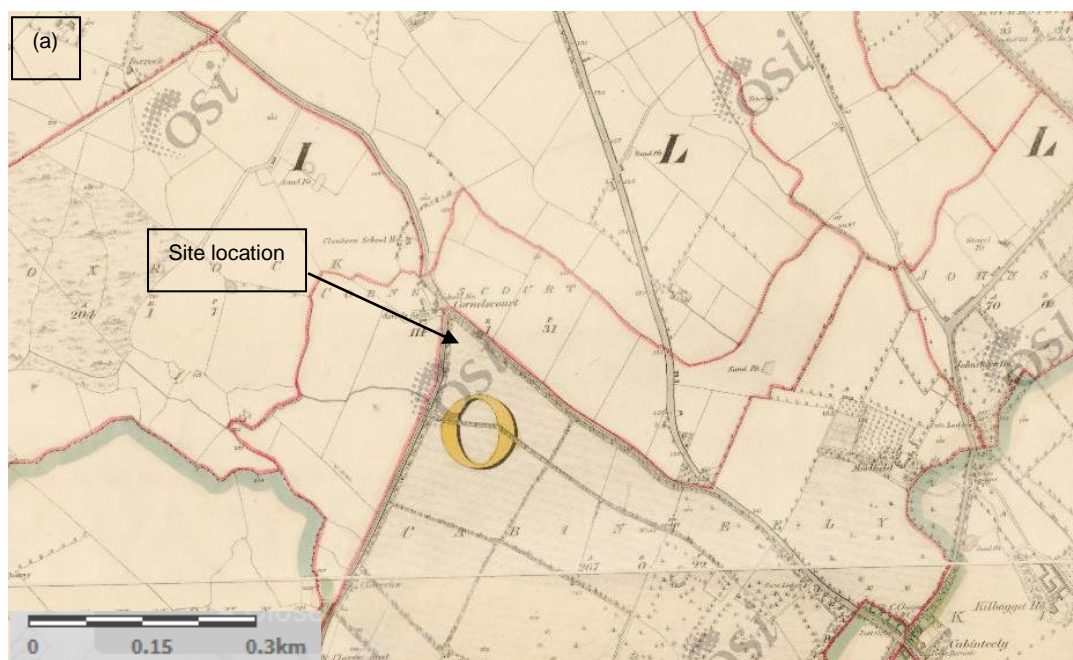
The site investigation was carried out between 9th – 13th March 2018. Trial pit depths range from 2.5m to 3.5m bgl.

1.2 Land Use

Most of the site is greenfield with part of the site (northeast) having been used in recent time as a temporary carpark.

Immediately upgradient of the north west of the site is a Texaco Service Station. This is built-up higher than the site on permeable engineering fill. The Texaco Station has a car wash, underground tanks and a store building on site. A takeaway restaurant and residential housing are located towards the western boundary of the site.

Historic maps from 1837 - 1842 and 1900s (refer to Figure 2 (a) & (b)) were reviewed and show that all available information indicates that prior land use was limited to agricultural uses only at the site. There are no quarries or historical industrial uses which could have resulted in historical sources of contamination. There are no available aerial photographs available on line since 1995 but there is no evidence of any previous development other than the temporary car park.



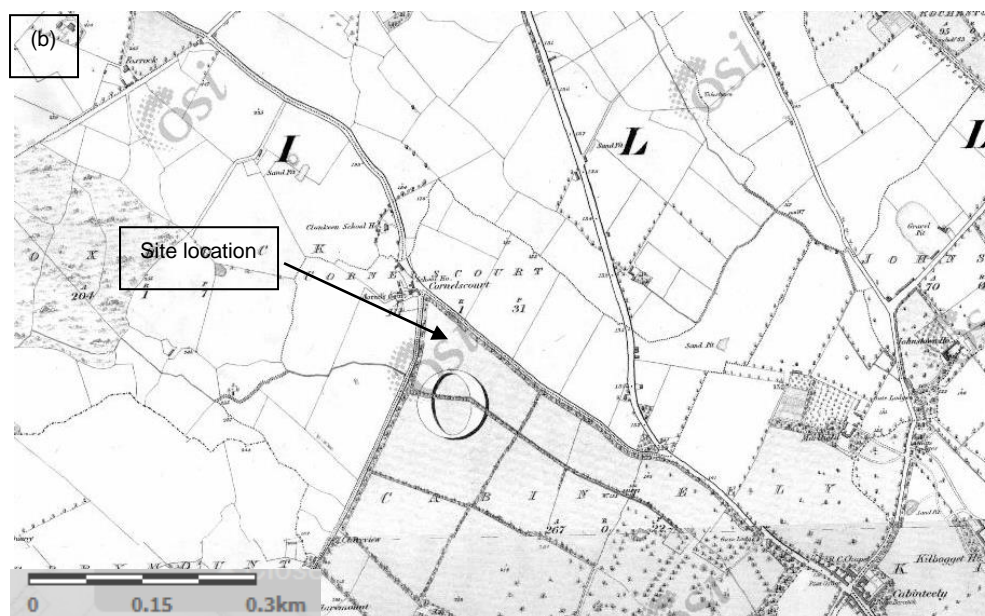


Figure 2 (a) Historic map 1837 – 1842 of Cornelscourt. (b) Historic map 1900's of Cornelscourt.

2.0 SOIL QUALITY ASSESSMENT GUIDELINES

There are no legislated threshold values for soils in Ireland. As such, the soil quality data was compared to a Generic Assessment Criteria (GAC) derived to be protective of human health and also ecology for a residential and commercial/industrial end use.

Representative soil samples were also analysed for Waste Acceptance Criteria (WAC) which indicates suitability of soil for disposal as inert, non-hazardous or hazardous. WAC results have been compared with the landfill acceptance criteria in Council Decision 2003/33/EC which determines suitable for disposal to landfill as inert, non-hazardous or hazardous.

Generic Assessment Criteria in the UK has been derived using the Contaminated Land Exposure Assessment (CLEA) model to be protective of human health for a number of different land uses. LQM (Land Quality Management) and the CIEH (Chartered Institute of Environmental Health) developed a document in July 2009 detailing their own research and derivation of their own 'LQM GACs'. A total of 82 substances including many organic substances had LQM GACs derived, for the standard land uses of residential, commercial/industrial and allotments. This was updated in 2015 following further research and the derived results are now called LQM/CIEH Suitable 4 Use Level (S4UL). The LQM/CIEH S4ULs are intended for use in assessing the potential risks posed to human health by contaminants in soil and as transparently -derived and cautious "trigger values" above which further assessment of the risks or remedial action may be needed. For each contaminant S4ULs have been derived for six land use scenarios based on assessing exposure pathways in each planning scenario. In this instance the commercial scenario has been considered. Soil type and soil organic matter (SOM) has an influence on the behaviour of contaminants. S4ULs have been derived for three SOM contents (1%, 2.5% and 6%) to cover the likely range in soils. A prudent approach has been taken by considering the lower 1% SOM content.

The UK values do not have any legal standing within the Republic of Ireland and no statutory guidance for assessing the significance of soil contamination currently exists. However, the values do provide a means of placing the data within context when considering magnitude of risk and have been used in that capacity for this assessment.

The main basis of the assessment remains the conceptual site model and consideration of the pollutant linkages: Source - Pathway – Receptor.

Refer to Table 1 for sample analysis. Table 2 below shows the soil analysis results compared to the LQM/CIEH Guideline values where available. Full laboratory results (JEL 18/3937) is presented in Appendix B.

The following samples were analysed for the following parameters.

- Waste Acceptance Criteria
- TPH CWG (speciated hydrocarbons)
- Volatiles including BTEX (Benzene, toluene, ethylbenzene, xylene), and
- Heavy Metals

Analysis	Samples
WAC analysis including asbestos	TP18-10 @ 2.30m & TP18-11 @ 3.50m (2 in total)
TPH CWG	TP18-02 @ 2.30m, TP18-04 @ 2.10m, TP18-06 @ 2.20m, TP18-08 @ 2.20m, TP18-09 @ 2.20m, TP18-10 @ 3.40m, TP18-11 @ 3.30m, TP18-13 @ 2.20m & TP18-16 @ 2.60m. PH18-01 @ 1.90m & PH18-04 @ 2.00 m. (11 in total)
Heavy Metals	TP18-02 @ 2.30m, TP18-04 @ 2.10m, TP18-06 @ 2.20m & TP18-07 @ 2.10m, TP18-09 @ 2.20m PH18-01 @ 1.90m (6 in total)

Table 1 Samples sent to the laboratory for analysis.

3.0 SITE INVESTIGATION FINDINGS

Seventeen trial pits (TP17-01 to TP17-17) and four pilot holes were excavated to a depth between 2m to 3.5m. Figure 1 presents the location of all trial pits.

3.1 Soil Logging

A total of seventeen trial pits and four pilot holes were excavated across the entire site including the car park area. The locations of these excavations are shown in Figure 1. In general, the subsoil sequence consisted of firm to stiff, brown to grey sandy gravelly CLAY with sub-angular to sub-rounded cobbles and occasional boulders. The boulders consisted of granite. Bedrock is interpreted to be approximately 3.5mgl to 4.0mgl and comprises granite.

The likely pathway is shallow perched groundwater and infiltration to the underlying bedrock aquifer. The bedrock aquifer is classified by the GSI as a 'Poor Aquifer' – bedrock which is generally unproductive except for Local Zones. The groundwater vulnerability is classified following GSI/EPA guidelines as 'High' which infers that there is <5 metres of low permeability soils. This is consistent with the findings of the site investigations.

Hydrocarbon contamination was found in the following trial pits: TP18-10, TP18-11, TP18-12, TP18-16 and TP18-17, all located in the northwest boundary of the site. There was no other physical contamination encountered in the other trial pits and pilot holes across the site. Contamination was mainly found directly downgradient from the petrol station and along the western boundary. No source of contamination was identified within the site boundary during the site investigations.



Plate 1 Petrol Station and area of contamination). **Plate 2** TP18-11 at boundary of petrol station. (Looking North)

3.2 Laboratory Results

A soil sample was taken at every metre and/or change in lithology, and representative samples sent to Exova Jones Laboratory to provide a greater understanding of the soil quality in the site.

Full laboratory results (JEL 18/3937) are presented in Appendix B. Appendix B also contains a compilation of all historical soil analyses (January – February 2000) collected to date as well as the WAC analysis i.e. from the site investigation in March 2018.

Results are compared against the LQM/CIEH S4ULs for residential and commercial use (1% SOM) where available for contaminants of concern. No exceedances of residential or commercial thresholds have been identified for any contaminants of concern, refer to Table 2 below.

AWN Consulting Ltd.			Soil Samples during Site Investigation 2018														Guideline Values	
Report:	Solid (Soil samples)	Sample ID	TP18-02	TP18-04	TP18-06	TP18-08	TP18-09	TP18-10	TP18-10	TP18-11	TP18-11	TP18-13	TP18-16	PH18-01	PH18-04	LQM/CI EH S4ul for HHRA Residential Threshold at 1% SOM (mg/kg)	LQM/CI EH S4ul for HHRA Commercial Threshold at 1% SOM (mg/kg)	
Client:		Depth (m)	2.30	2.10	2.20	2.20	2.20	2.30	3.40	3.30	3.50	2.20	2.60	1.90	2.00			
Client ref:	18_10021	Containers	V J	V J	V J	J T	J T	V J T	V J	J T	J T	J T	J T	J	V J T			
Location:	Cornelscourt, Co. Dublin	Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
		Sampled Date	12/03/2018	12/03/2018	12/03/2018	12/03/2018	12/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018	09/03/2018	09/03/2018			
GTC21C35AL	>C21-C35 #	mg/kg	<7	-	-	-	-	28	57	101	92	-	84	-	-			
GTC05C35AL	Total aliphatics C5-35	mg/kg	<19	-	-	-	-	229	504	719	730	-	555	-	-	-	-	
TM36/PM12	>C6-C10	mg/kg	<0.1	NT	NT	NT	NT	NT	8.4	NT	NT	33.4	NT	NT	NT	NT	-	
TM5/PM8/PM16	>C10-C25	mg/kg	<10	NT	NT	NT	NT	NT	207	NT	NT	698	NT	NT	NT	NT	-	
TM5/PM8/PM16	>C25-C35	mg/kg	<10	NT	NT	NT	NT	NT	-	NT	NT	13	NT	NT	NT	NT	-	
Aromatics																		
GTEC05EC07AR	>C5-EC7 #	mg/kg	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	1400	26000(1220)sol	
GTEC07EC08AR	>EC7-EC8 #	mg/kg	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	3900	56000(869)vap	
GTEC08EC10AR	>EC8-EC10 #	mg/kg	<0.1	-	-	-	-	0.6	0.2	-	4.6	-	-	-	270	3500(613)vap		
GTEC10EC12AR	>EC10-EC12 #	mg/kg	<0.2	-	-	-	-	24.2	53.2	23.2	85.3	-	23.2	-	1200	16000(364)sol		
GTEC12EC16AR	>EC12-EC16 #	mg/kg	<4	-	-	-	-	43	95	150	181	-	134	-	2500	36000(169)sol		
GTEC16EC21AR	>EC16-EC21 #	mg/kg	<7	-	-	-	-	59	121	206	190	-	176	-	1900	28000		
GTEC21EC35AR	>EC21-EC35 #	mg/kg	<7	-	-	-	-	23	42	66	57	-	54	-	1900	28000		
GTEC05EC35AR	Total aromatics C5-35 #	mg/kg	<19	-	-	-	-	150	311	445	518	-	387	-	-	-		
GTC05C35ALAR	Total aliphatics and aromatics(C5-35)	mg/kg	<38	-	-	-	-	379	815	1164	1248	-	942	-	-	-		
1634-04-4	MTBE #	ug/kg	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
71-43-2	Benzene #	ug/kg	<5	-	-	-	-	0.009	0.107	-	-	-	-	-	380	27000		
108-88-3	Toluene #	ug/kg	<5	-	-	-	-	0.02	0.035	-	-	-	-	-	3900000	5600000(869)vap		
100-41-4	Ethylbenzene #	ug/kg	<5	-	-	-	-	0.035	0.041	-	1.073	-	-	-	4400000	5700000(518)vap		
P_M_XYLENE	m/p-Xylene #	ug/kg	<5	-	-	-	-	0.425	0.115	0.097	3.483	-	0.038	-	450000	m: 620000(625)vap p: 5900000(576)sol		
95-47-6	o-Xylene #	ug/kg	<5	-	-	-	-	0.062	0.091	-	-	-	-	-	48000	6600000(478)sol		
-	Total Mineral Oil	mg/kg	<1	-	-	-	-	220	-	-	695	-	-	-	-	-		

Legend

16.4 Results exceed LQM/CI EH S4ul for HHRA Residential Threshold at 1% SOM (mg/kg)

16.4 Results exceed LQM/CI EH S4ul for HHRA Commercial & Residential Threshold at 1% SOM (mg/kg)

- Guideline threshold value not available

Notes

HHRA 2015 - LQM/CI EH Suitable 4 Use Levels based on 'Commercial' and/or 'residential' land use using 1% SOM

Sol : sol S4UL presented exceed the solubility saturation limit, which is presented in brackets

Vap: vap S4UL presented exceed the vapour saturation limit which is presented in brackets

Table 2 Soil analysis results for TPH CWG analysis.

The majority of the soil samples analysed for TPH CWG recorded concentrations below the laboratory's respective limit of detection (LOD). This indicates that there is only contamination present directly downgradient from the petrol station. Refer to Table 2, above.

3.2.1 Waste Acceptance Criteria (WAC) Analysis

To investigate the suitability of soil for disposal if required, two soil samples (TP18-10 @ 2.30m & TP18-11 @ 3.50m) were collected from the area identified as having physical evidence of residual contamination. These results have been compared against Waste Acceptance Criteria (WAC) set out by the adopted EU Council Decision 2003/33/EC which established criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 and Annex II of Directive 1999/31/EC (2002).

The WAC analysis is not indicative of the potential future use of the land for development but rather for identification of suitability for licenced disposal. As such this criterion is only relevant to disposal of the soil off site.

The results identified that the soil closer to the boundary with petrol station (TP18-11(3.50m) falls under Category D – Hazardous due to the concentration of mineral oil, e.g. <500mg/kg present in the sample. The sample (TP18-10 @ 2.30m) collected further from the presumed source of the petrol station is suitable for classification as Category A – Inert.

The above assessment is carried out on the basis of only two soil samples obtained from two different trial pit locations that contained residual contamination. Should soil removal be considered as an option, additional soil sampling may be required to further refine the above soil classification. Waste acceptance criteria may vary at each potential waste receiving facility and further assessment and consultation with the proposed waste receiving facility is required. The acceptance of any waste material at a receiving facility will be subject to the approval of the facility operator in accordance with their facility permit or licence.

3.3 Ground Gas Assessment

Gas analysis was carried out using a gas analyser unit – GA5000. The GA5000 is used to measure critical gases such as % CH₄, CO₂ and O₂, H₂S (up to 10000ppm), NH₃, H₂ and CO (H₂ compensated). This unit was used to measure any elevated gasses within the soil during site investigations.

Elevated gas concentrations were noted in the following trial pits; TP18-10, TP18-11, TP18-12, TP18-16 and TP18-17 where a hydrocarbon odor was noted. Elevated CH₄ concentrations were noted across these trial pits ranging from 0.1% (TP18-11) to 5.6% (TP18-16). There were no other exceedances with gas within the other trial pits and pilot holes across the site. These concentrations are classed as 'very low risk', according to the guidelines for 'Assessing Risks Posed by Hazardous Ground Gases to Buildings', CIRIA C665, 2007.

3.4 Summary of Soil Conditions

Most of the soil beneath the site was found to be uncontaminated based on physical observations, gas and laboratory results. This is based on field observations and laboratory analysis for twelve (12) trial pits in the greenfield area and four (4) pilot holes within the car park.

A localised area of shallow hydrocarbon contamination within soil was identified directly downgradient from the petrol station. The extent of contamination present based on physical observation and laboratory analysis is approximately 950 m² (delineated by the hatched area on Figure 3). Physical evidence of hydrocarbon contamination within soil was noted in trial pits TP18-10, TP18-11, TP18-12, TP18-16 and TP18-17 in the northwest boundary of the site. The hydrocarbon contaminated soil was found to be present within natural CLAY and gravelly CLAY just above expected rock head. The depth of contamination ranges from 2mbgl to 3.5mbgl. There was no evidence of free phase hydrocarbon product identified during the site assessment, which would be indicative of a recent contamination event.

Comparison of the laboratory findings with UK LQM data demonstrates the residual contaminated soil within the site are below the LQM threshold values for residential and commercial use.

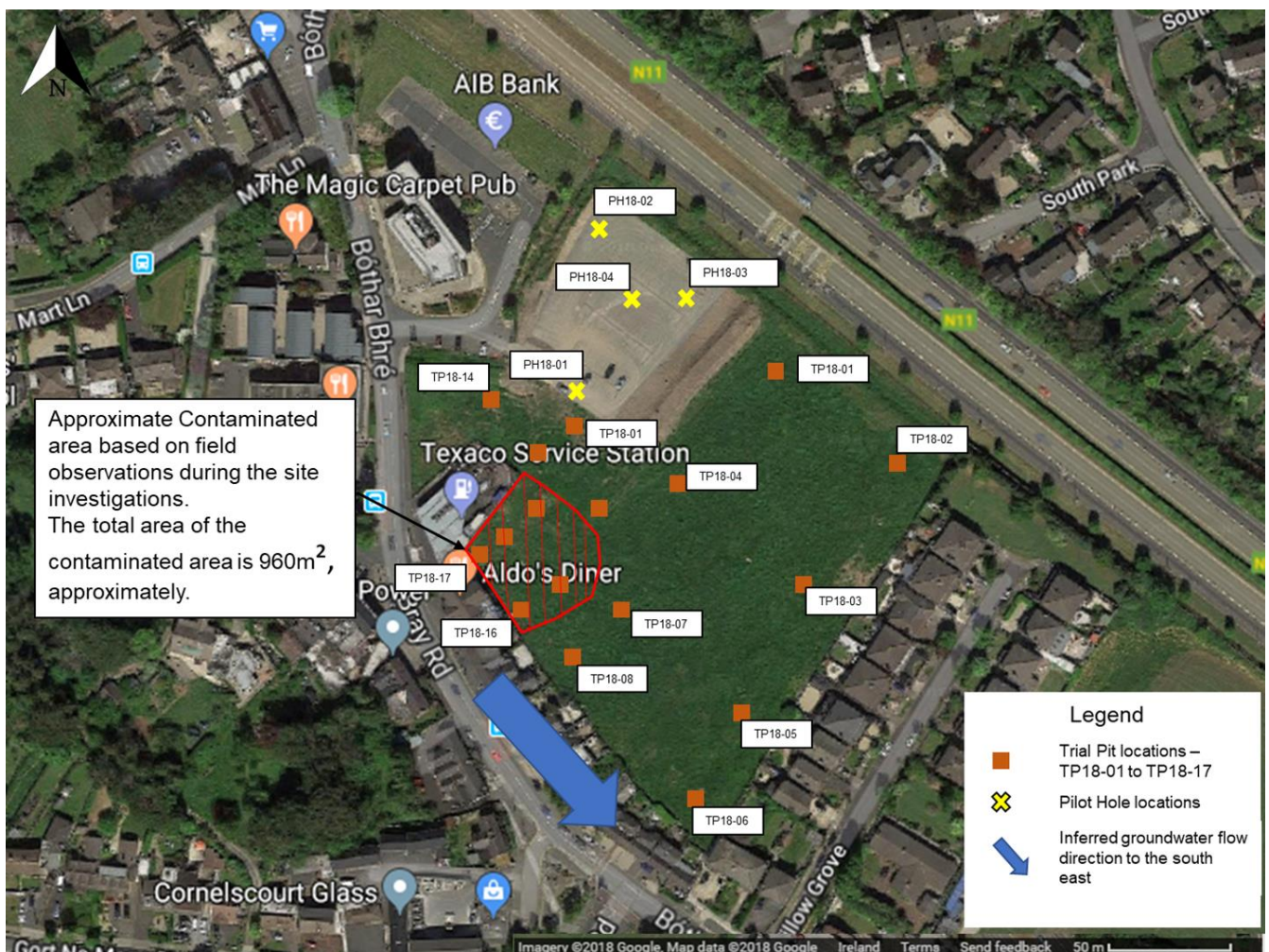


Figure 3 Extent of soil contamination within the site.

4.0 QUANTITATIVE RISK ASSESSMENT

4.1 Description of Model

AWN have used the RISC Model to undertake a detailed quantitative risk assessment. RISC enables the site-specific assessment of likely risk to site end

users and enables the determination of whether or not it is acceptable for soil concentrations to remain in the ground.

RISC is a software package for performing fate and transport modelling, human health risk assessments and ecological risk assessments for contaminated sites. RISC can be used to estimate the potential for adverse human health impacts (both carcinogenic and non-carcinogenic) from up to nine exposure pathways.

RISC Key Features Include:

- A customisable chemical database with 82 chemicals
- The ability to calculate additive risk due to multiple pathways, compounds and receptors (such as a resident exposed as both a child and an adult)

RISC Exposure Pathways Include:

- Ingestion of soil
- Dermal contact with soil
- Ingestion of groundwater
- Dermal contact with groundwater
- Inhalation in the shower
- Inhalation of outdoor air
- Inhalation of indoor air
- Ingestion of surface water
- Dermal contact with surface water

RISC Fate and Transport Models Include:

- Johnson and Ettinger indoor air model
- Vadose zone model
- Saturated zone model
- Volatilization from groundwater to indoor and outdoor air
- Outdoor box model

4.2 Model Input Data

The most elevated levels of hydrocarbons were chosen as the input parameters to the model, this data was taken from the soil quality data collected during the site investigation (Ref Table 2).

The model input data was predominantly chosen from TP 18. It was assumed that there would be a ground floor flat within any proposed development, and that as a worst case the contamination was only 0.1m below the floor slab, which also from a worst-case point of view was assumed to be a 15cm thick concrete slab.

The details of the model input parameters are provided in Appendix C.

Once all data was uploaded, the model was run, and the model output is discussed in below.

4.3 Model Results

The model out data is provided as Appendix D.

The key parameter of concern is whether the predicted carcinogenic or non-carcinogenic health effects are such that the risk to a theoretical occupant of a future apartment development on-site would be exposed to either a cancer risk of 1 in 1,000,000 per annum or a non-carcinogenic health effect of 1 in 1,000,000 per annum.

The 1 in 1000,000 threshold is the *de minimis* risk which is considered acceptable.

The carcinogenic risk is shown in Table 4.1 below and the non-carcinogenic risk is shown in Table 4.2 below. It can be seen in both cases that the predicted risk is less than 1 in 1,000,000 per annum (also known as 1E-6 per annum).

Chemical	Inhalation of Indoor Air	Inhalation of Outdoor Air	TOTAL
Ethylbenzene	2.0E-11	1.5E-16	2.0E-11
TPH Aliphatic C5-6	ND	ND	ND
TPH Aliphatic C6-8	ND	ND	ND
TPH Aliphatic C8-10	ND	ND	ND
TPH Aliphatic C10-12	ND	ND	ND
TPH Aliphatic C12-16	ND	ND	ND
TPH Aliphatic C16-35	ND	ND	ND
TPH Aromatic C7-8	ND	ND	ND
TPH Aromatic C8-10	ND	ND	ND
TPH Aromatic C10-12	ND	ND	ND
TPH Aromatic C12-16	ND	ND	ND
TPH Aromatic C16-21	ND	ND	ND
TPH Aromatic C21-35	ND	ND	ND
Xylenes (m-)	ND	ND	ND
TOTAL	2.0E-11	1.5E-16	2.0E-11

Table 4.1 Carcinogenic Risk Summary

Chemical	Inhalation of Indoor Air	Inhalation of Outdoor Air	TOTAL
Ethylbenzene	6.1E-08	4.7E-13	6.1E-08
TPH Aliphatic C5-6	0.0E+00	0.0E+00	ND
TPH Aliphatic C6-8	0.0E+00	0.0E+00	ND
TPH Aliphatic C8-10	0.0E+00	0.0E+00	ND
TPH Aliphatic C10-12	0.0E+00	0.0E+00	ND
TPH Aliphatic C12-16	0.0E+00	0.0E+00	ND
TPH Aliphatic C16-35	ND	ND	ND
TPH Aromatic C7-8	1.6E-07	1.3E-12	1.6E-07
TPH Aromatic C8-10	0.0E+00	0.0E+00	ND
TPH Aromatic C10-12	0.0E+00	0.0E+00	ND
TPH Aromatic C12-16	0.0E+00	0.0E+00	ND
TPH Aromatic C16-21	ND	ND	ND
TPH Aromatic C21-35	ND	ND	ND
Xylenes (m-)	2.1E-08	1.7E-13	2.1E-08
TOTAL	2.5E-07	1.9E-12	2.5E-07

Table 4.2 Non-Carcinogenic Risk

5.0 CONCLUSIONS

The following conclusions are based on the site investigations carried out in March 2018 and risk assessment:

- Apart from a localised area in the northwest of the site, the site was found to be uncontaminated based on physical observations, gas and laboratory results. This is based on field observations and laboratory analysis for twelve (12) trial pits in the greenfield area and four (4) pilot holes within the car park (Figure 3).
- Localised shallow hydrocarbon contamination was found immediately downgradient of the petrol station. The extent of contamination present based on physical observation and laboratory analysis is approx. 960 square metres (delineated by the hatched area on Figure 3). Physical evidence of hydrocarbon contamination within soil was noted in trial pits TP18-10, TP18-11, TP18-12, TP18-16 and TP18-17 (all located in the northwest boundary of the site). TP18-10, TP11 & TP18-16. TP18-12 & TP18-17 also within this area were not analysed but contain contamination based on field observations. The contamination is most evident within a natural CLAY and the underlying gravelly clay horizon c. 2mbgl (metres below ground level) and 3.50mbgl, respectively.
- No source of contamination was identified. However, it is likely that the contamination is derived from a historical leak sourced from an adjacent (upgradient) petrol station. The absence of any free phase product and the significant low concentrations of volatile components of the hydrocarbons (BTEX) noted indicate an historical leak as a source.
- Two representative samples of the contaminated soil were analysed for full Waste Acceptance Criteria (WAC) testing. One sample (TP18-10 @ 2.30mbgl) complies with "inert" criteria" while the second sample (TP18-11 @ 3.50mg/l) is "Hazardous" due to the mineral oil content present. This criterion is only relevant to disposal of the soil off site.
- Table 1 presents the soil quality data for relevant parameters compared with LQM/ClEH thresholds concentrations for the residential and commercial use (GQRA). The results show compliance with a future use for either residential or commercial use.
- Completion of a quantitative risk assessment (DQRA) for an apartment type development on the site concluded that even assuming the worst-case exposure

scenario of an apartment dweller on the contaminated section of the site, there is no significant risk associated with the residual contamination present.

LIMITATIONS OF REPORT

The conclusions presented in this report are professional opinions based solely on the tasks outlined herein and the information made available to AWN. They are intended for the purpose outlined herein and for the indicated site and project. p.

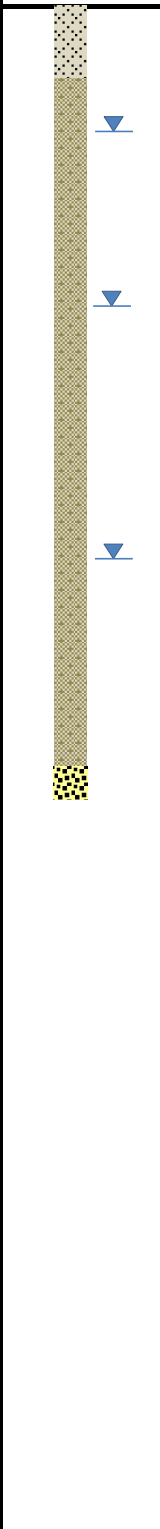
Opinions and recommendations presented herein apply to the site conditions existing at the time of the recently completed field work and subsequent assessment. They cannot apply to changes at the site of which AWN is not aware and has not had the opportunity to evaluate. This report is intended for use in its entirety; no excerpt may be taken to be representative of this baseline assessment. All work carried out in preparing this report has utilised and is based on AWN professional knowledge and understanding of the current relevant Irish and European Community standards, codes and legislation.

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APPENDIX A

Trial Pit Logs

AWN Project Ref: 18-10021	Client: Dunnes Stores	Excavation date: 12/03/2018
Ground Level (mAOD): -	Location: Cornelscourt, Co. Dublin	Geology log: CD
Grid Reference: 0722447 / 0725857		

SUBSURFACE PROFILE	Depth mbgl	Lithology	BACKFILL
Ground surface			
0.0 Topsoil 0.1 0.2 0.3 Soft light brown slightly sandy, gravelly CLAY with cobbles and boulders, Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Gravels contain some localised groundwater at 0.5m, with 0.4 0.5 0.6 Stiff to firm dark brown slightly sandy, slightly gravelly CLAY with some cobbles and boulders, Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp. 0.7 0.8 0.9 1.0 1.1 1.2 Detail: 1.2m, Groundwater Strike, slow ingress 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 Detail: 2.2m, Groundwater Strike, slow ingress 2.3 2.4 2.5 2.6 2.7 2.8 2.9 3.0 3.1 Light brown to yellow slightly sandy GRAVELS. Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp. 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5.0 5.1 5.2 5.3 5.4 5.5 5.6 5.7 5.8 5.9 6.0	0.25 0.60 3.05		BACKFILLED WITH ARISINGS
End of Trial Pit 3.40 m			

Excavation Method: 13 ton tracked machine

Comments: Trial pit located close to the N11

Contractor: Breffni Contractors

Pit dimensions: 0.6m x 2.00 m x 3.5 m (depth)

G/level (mAOD): -

Water Strikes (mbgl):

0.50

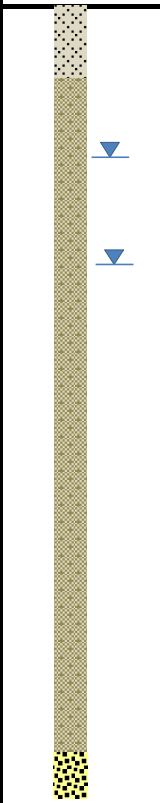
1.20

2.20

Static Water Level (mbgl):

-

AWN Project Ref: 18-10021	Client: Dunnes Stores	Excavation date: 12/03/2018
Ground Level (mAOD): -	Location: Cornelscourt, Co. Dublin	Geology log: CD
Grid Reference: 0722416 / 0725883		

SUBSURFACE PROFILE	Depth mbgl	Lithology	BACKFILL
Ground surface			
0.0 Topsoil 0.1 0.2 0.3 Soft light brown slightly sandy, gravelly CLAY with cobbles and boulders. Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Gravels contain some localised groundwater at 0.55m, with slow ingress. 0.4 0.5 0.6 Stiff to firm dark brown slightly sandy, slightly gravelly CLAY with some cobbles and boulders. Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp. 0.7 0.8 0.9 1.0 Detail: 1.05m, Groundwater Strike, slow ingress 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 3.0 Light brown to yellow slightly sandy GRAVELS. Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp. 3.1 3.2 3.3 3.4 End of Trial Pit 3.40 m 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5.0 5.1 5.2 5.3 5.4 5.5 5.6 5.7 5.8 5.9 6.0	0.25 0.60 3.00		BACKFILLED WITH ARISINGS

Excavation Method: 13 ton tracked machine	Pit dimensions: 0.6m x 2.00 m x 3.5 m (depth)		
Comments: Trial pit located close to the N11	G/level (mAOD): -		
	Water Strikes (mbgl):	0.55	1.05
Contractor: Breffni Contractors	Static Water Level (mbgl):	-	

AWN Project Ref: 18-10021	Client: Dunnes Stores	Excavation date: 12/03/2018
Ground Level (mAOD): -	Location: Cornelscourt, Co. Dublin	Geology log: CD
Grid Reference: 0722404 / 0725768		

SUBSURFACE PROFILE	Depth mbgl	Lithology	BACKFILL
Ground surface			
0.0 Topsoil			
0.1			
0.2 MADE GROUND consisting of; yellow bricks, red bricks, plastic bags, plastic broke pipe fragments and parts of a old steel fencing.	0.20		
0.3			
0.4			
0.5 Soft light brown slightly sandy, gravelly CLAY with cobbles and boulders, Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Gravels are wet.	0.45		
0.6			
0.7			
0.8	0.80		
0.9 Stiff to firm dark brown slightly sandy, slightly gravelly CLAY with some cobbles and boulders, Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp.			
1.0			
1.1			
1.2			
1.3 Detail: 1.3m, Groundwater Strike, slow ingress with an appearance of an oil slick.		▼	
1.4			
1.5			
1.6			
1.7			
1.8			
1.9			
2.0			
2.1			
2.2			
2.3			
2.4			
2.5			
2.6			
2.7			
2.8			
2.9			
3.0 Light brown to yellow slightly sandy GRAVELS. Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp.	3.00		
3.1			
3.2			
3.3			
3.4 End of Trial Pit 3.1 m			
3.5			
3.6			
3.7			
3.8			
3.9			
4.0			
4.1			
4.2			
4.3			
4.4			
4.5			
4.6			
4.7			
4.8			
4.9			
5.0			
5.1			
5.2			
5.3			
5.4			
5.5			
5.6			
5.7			
5.8			
5.9			
6.0			

Excavation Method: 13 ton tracked machine	Pit dimensions: 0.6m x 2.00 m x 3.10 m (depth)		
Comments: Close to the housed along the south eastern boundary of the site	G/level (mAOD): -		
	Water Strikes (mbgl):	1.30	-
Contractor: Breffni Contractors	Static Water Level (mbgl):		-



AWN Project Ref: 18-10021	Client: Dunnes Stores	Excavation date: 12/03/2018
Ground Level (mAOD): -	Location: Cornelscourt, Co. Dublin	Geology log: CD
Grid Reference: 0722401 / 0725753		

SUBSURFACE PROFILE	Depth mbgl	Lithology	BACKFILL
Ground surface			
0.0 Topsoil			
0.1			
0.2 MADE GROUND consisting of; yellow bricks, red bricks, plastic bags, plastic broke pipe fragments and parts of a old steel fencing.	0.20		
0.3			
0.4			
0.5 Soft light brown slightly sandy, gravelly CLAY with cobbles and boulders, Sand is fine to coarse. Gravels are sub-angular to sub-rounded.	0.45		
0.6			
0.7			
0.8			
0.9 Stiff to firm dark brown slightly sandy, slightly gravelly CLAY with some cobbles and boulders, Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp.	0.80		
1.0			
1.1			
1.2			
1.3			
1.4			
1.5			
1.6			
1.7			
1.8			
1.9			
2.0			
2.1			
2.2			
2.3			
2.4			
2.5			
2.6			
2.7			
2.8			
2.9			
3.0 Light brown to yellow slightly sandy GRAVELS. Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp.	3.00		
3.1			
3.2			
3.3			
3.4			
3.5 End of Trial Pit 3.50 m	3.50		
3.6			
3.7			
3.8			
3.9			
4.0			
4.1			
4.2			
4.3			
4.4			
4.5			
4.6			
4.7			
4.8			
4.9			
5.0			
5.1			
5.2			
5.3			
5.4			
5.5			
5.6			
5.7			
5.8			
5.9			
6.0			

BACKFILLED WITH ARISINGS

Excavation Method: 13 ton tracked machine	Pit dimensions: 0.6m x 2.00 m x 3.50 m (depth)		
Comments: Close to the housed along the south eastern boundary of the site	G/level (mAOD): -		
	Water Strikes (mbgl):	-	-
Contractor: Breffni Contractors	Static Water Level (mbgl):	-	-

AWN Project Ref: 18-10021	Client: Dunnes Stores	Excavation date: 12/03/2018
Ground Level (mAOD): -	Location: Cornelscourt, Co. Dublin	Geology log: CD
Grid Reference: 0722353 / 0725806		

SUBSURFACE PROFILE	Depth mbgl	Lithology	BACKFILL
Ground surface			
0.0 Topsoil			
0.1			
0.2			
0.3 Soft light brown slightly sandy, gravelly CLAY with cobbles and boulders, Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Gravels within the CLAY are wet.	0.25		
0.4			
0.5			
0.6			
0.7			
0.8 Detail: 0.80m, Slow to moderate ingress of groundwater into the pit.		▼	
0.9			
1.0 Stiff to firm dark brown slightly sandy, slightly gravelly CLAY with some cobbles and boulders, Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp.	0.95		
1.1			
1.2			
1.3			
1.4			
1.5			
1.6			
1.7			
1.8			
1.9			
2.0			
2.1			
2.2			
2.3			
2.4			
2.5			
2.6 Detail: 2.65m, Sidewall and backwall collapse due to ingres of water into the pit.			
2.7			
2.8			
2.9			
3.0			
3.1			
3.2	3.20		
End of Trial Pit 3.20 m			
3.3			
3.4			
3.5			
3.6			
3.7			
3.8			
3.9			
4.0			
4.1			
4.2			
4.3			
4.4			
4.5			
4.6			
4.7			
4.8			
4.9			
5.0			
5.1			
5.2			
5.3			
5.4			
5.5			
5.6			
5.7			
5.8			
5.9			
6.0			

Excavation Method: 13 ton tracked machine

Pit dimensions: 0.6m x 2.00 m x 2.85 m (depth)

Comments:

G/level (mAOD): -

Water Strikes (mbgl):

0.80

-

-

Contractor: Breffni Contractors

Static Water Level (mbgl):

-

AWN Project Ref: 18-10021	Client: Dunnes Stores	Excavation date: 12/03/2018
Ground Level (mAOD): -	Location: Cornelscourt, Co. Dublin	Geology log: CD
Grid Reference: 0722363 / 0725825		

SUBSURFACE PROFILE	Depth mbgl	Lithology	BACKFILL
Ground surface			
0.0 Topsoil			
0.1			
0.2			
0.3 Soft light brown slightly sandy, gravelly CLAY with cobbles and boulders. Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Gravels contain some localised groundwater at 0.40m, with slow ingress.	0.25	▼	
0.4			
0.5			
0.6 Stiff to firm dark brown slightly sandy, slightly gravelly CLAY with some cobbles and boulders. Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp.	0.60		
0.7			
0.8			
0.9			
1.0			
1.1			
1.2			
1.3 Detail: 1.25m, Groundwater Strike, slow ingress		▼	
1.4			
1.5			
1.6			
1.7			
1.8			
1.9			
2.0			
2.1			
2.2			
2.3			
2.4			
2.5			
2.6			
2.7			
2.8			
2.9			
3.0 Light brown to yellow slightly sandy GRAVELS. Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp.	3.00		
3.1			
3.2			
3.3			
3.4	3.40		
End of Trial Pit 3.40 m			
3.5			
3.6			
3.7			
3.8			
3.9			
4.0			
4.1			
4.2			
4.3			
4.4			
4.5			
4.6			
4.7			
4.8			
4.9			
5.0			
5.1			
5.2			
5.3			
5.4			
5.5			
5.6			
5.7			
5.8			
5.9			
6.0			

BACKFILLED WITH ARISINGS

Excavation Method: 13 ton tracked machine	Pit dimensions: 0.6m x 2.00 m x 3.40 m (depth)		
Comments:	G/level (mAOD): -		
	Water Strikes (mbgl):	0.40	1.25
Contractor: Breffni Contractors	Static Water Level (mbgl):	-	

AWN Project Ref: 18-10021	Client: Dunnes Stores	Excavation date: 12/03/2018
Ground Level (mAOD): -	Location: Cornelscourt, Co. Dublin	Geology log: CD
Grid Reference: 0722363 / 0725825		

SUBSURFACE PROFILE	Depth mbgl	Lithology	BACKFILL
Ground surface			
0.0 Topsoil			
0.1			
0.2			
0.3 Soft light brown slightly sandy, gravelly CLAY with cobbles and boulders, Sand is fine to coarse. Gravels are sub-angular to sub-rounded.	0.25		
0.4			
0.5			
0.6			
0.7			
0.8			
0.9			
1.0			
1.1			
1.2 Stiff to firm dark brown slightly sandy, slightly gravelly CLAY with some cobbles and boulders, Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp.	1.10		
1.3			
1.4			
1.5 Detail: 1.45m, Groundwater Strike, slow ingress		▼	
1.6			
1.7			
1.8			
1.9			
2.0			
2.1			
2.2			
2.3			
2.4			
2.5			
2.6			
2.7			
2.8			
2.9			
3.0			
3.1			
3.2 Light brown to yellow slightly sandy GRAVELS. Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp.	3.12		
3.3			
3.4	3.40		
3.5			
3.6 End of Trial Pit 3.40 m			
3.7			
3.8			
3.9			
4.0			
4.1			
4.2			
4.3			
4.4			
4.5			
4.6			
4.7			
4.8			
4.9			
5.0			
5.1			
5.2			
5.3			
5.4			
5.5			
5.6			
5.7			
5.8			
5.9			
6.0			

Excavation Method: 13 ton tracked machine	Pit dimensions: 0.6m x 2.00 m x 3.40 m (depth)		
Comments:	G/level (mAOD): -		
	Water Strikes (mbgl):	1.45	-
Contractor: Breffni Contractors	Static Water Level (mbgl):		-

BACKFILLED WITH ARISINGS

AWN Project Ref: 18-10021	Client: Dunnes Stores	Excavation date: 13/03/2018
Ground Level (mAOD): -	Location: Cornelscourt, Co. Dublin	Geology log: CD
Grid Reference: 0722335 / 0725825		

SUBSURFACE PROFILE	Depth mbgl	Lithology	BACKFILL
Ground surface			
0.0 Topsoil			
0.1			
0.2			
0.3 Soft light brown slightly sandy, gravelly CLAY with cobbles and boulders, Sand is fine to coarse. Gravels are sub-angular to sub-rounded.	0.25		
0.4			
0.5			
0.6			
0.7 Detail: 0.70m, Groundwater Strike, slow ingress		▼	
0.8			
0.9 Stiff to firm dark brown slightly sandy, slightly gravelly CLAY with some cobbles and boulders, Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp.	0.80		
1.0			
1.1			
1.2			
1.3 Detail: 1.25m, Groundwater Strike, slow ingress		▼	
1.4			
1.5			
1.6			
1.7			
1.8 Detail: 1.80m, Strong hydrocarbon odour emitting from the pit. CLAY is stained grey to dark grey.			
1.9			
2.0			
2.1			
2.2			
2.3			
2.4			
2.5			
2.6			
2.7			
2.8			
2.9			
3.0			
3.1 Light brown to yellow slightly sandy GRAVELS. Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp, with a strong hydrocarbon odour.	3.05		
3.2			
3.3			
3.4			
3.5			
3.6 End of Trial Pit 3.55 m	3.55		
3.7			
3.8			
3.9			
4.0			
4.1			
4.2			
4.3			
4.4			
4.5			
4.6			
4.7			
4.8			
4.9			
5.0			
5.1			
5.2			
5.3			
5.4			
5.5			
5.6			
5.7			
5.8			
5.9			
6.0			

BACKFILLED WITH ARISINGS

Excavation Method: 13 ton tracked machine	Pit dimensions: 0.6m x 2.00 m x 3.55 m (depth)		
Comments: First encounter of hydrocarbon contamination at a depth of 1.8m to 2m. Trial Pit constructed 30 metres south of the petrol station.	G/level (mAOD): -		
Contractor: Breffni Contractors	Water Strikes (mbgl):	0.70	1.25
	Static Water Level (mbgl):	-	

AWN Project Ref: 18-10021	Client: Dunnes Stores	Excavation date: 13/03/2018
Ground Level (mAOD): -	Location: Cornelscourt, Co. Dublin	Geology log: CD
Grid Reference: 0722327 / 0725832		

SUBSURFACE PROFILE	Depth mbgl	Lithology	BACKFILL
Ground surface			
0.0 Topsoil			
0.1			
0.2			
0.3 MADE GROUND consisting of; yellow bricks, red bricks, plastic bags, plastic broke pipe fragments, rubbish - litter and parts of a old steel fencing.	0.25		
0.4			
0.5			
0.6 Soft light brown slightly sandy, gravelly CLAY with cobbles and	0.50		
0.7			
0.8			
0.9			
1.0 Stiff to firm dark brown slightly sandy, slightly gravelly CLAY with some cobbles and boulders, Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp.	0.90		
1.1			
1.2			
1.3			
1.4			
1.5			
1.6			
1.7			
1.8			
1.9			
2.0 Detail: 2m, Strong hydrocarbon odour emitting from the pit. CLAY is stained grey to dark grey.			
2.1			
2.2			
2.3			
2.4			
2.5			
2.6			
2.7			
2.8			
2.9			
3.0			
3.1 Light brown to yellow slightly sandy GRAVELS. Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp, with a	3.05		
3.2			
3.3			
3.4			
3.5			
3.6 End of Trial Pit 3.25 m			
3.7			
3.8			
3.9			
4.0			
4.1			
4.2			
4.3			
4.4			
4.5			
4.6			
4.7			
4.8			
4.9			
5.0			
5.1			
5.2			
5.3			
5.4			
5.5			
5.6			
5.7			
5.8			
5.9			
6.0			

Excavation Method: 13 ton tracked machine	Pit dimensions: 0.6m x 2.00 m x 3.25 m (depth)		
Comments: First encounter of hydrocarbon contamination at a depth of 1.8m to 2m. Trial Pit constructed directly south of the petrol station.	G/level (mAOD): -		
Contractor: Breffni Contractors	Water Strikes (mbgl):	-	-
	Static Water Level (mbgl):	-	

AWN Project Ref: 18-10021	Client: Dunnes Stores	Excavation date: 13/03/2018
Ground Level (mAOD): -	Location: Cornelscourt, Co. Dublin	Geology log: CD
Grid Reference: 0722337 / 0725844		

SUBSURFACE PROFILE	Depth mbgl	Lithology	BACKFILL
Ground surface			
0.0 Topsoil			
0.1			
0.2			
0.3 MADE GROUND consisting of; yellow bricks, red bricks, plastic bags, plastic broke pipe fragments, rubbish - litter and parts of a old steel fencing.	0.25		
0.4			
0.5			
0.6 Soft light brown slightly sandy, gravelly CLAY with cobbles and	0.50		
0.7			
0.8			
0.9			
1.0 Stiff to firm dark brown slightly sandy, slightly gravelly CLAY with some cobbles and boulders, Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp.	0.90		
1.1			
1.2			
1.3			
1.4			
1.5			
1.6			
1.7			
1.8			
1.9			
2.0 Detail: 2m, Strong hydrocarbon odour emitting from the pit. CLAY is stained grey to dark grey.			
2.1			
2.2			
2.3			
2.4			
2.5			
2.6			
2.7			
2.8			
2.9			
3.0			
3.1 Light brown to yellow slightly sandy GRAVELS. Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp, with a	3.1		
3.2			
3.3			
3.4	3.40		
3.5			
3.6 End of Trial Pit 3.25 m			
3.7			
3.8			
3.9			
4.0			
4.1			
4.2			
4.3			
4.4			
4.5			
4.6			
4.7			
4.8			
4.9			
5.0			
5.1			
5.2			
5.3			
5.4			
5.5			
5.6			
5.7			
5.8			
5.9			
6.0			

Excavation Method: 13 ton tracked machine	Pit dimensions: 0.6m x 2.00 m x 3.40 m (depth)		
Comments: First encounter of hydrocarbon contamination at a depth of 1.8m to 2m. Trial Pit constructed directly south of the petrol station.	G/level (mAOD): -		
Contractor: Breffni Contractors	Water Strikes (mbgl):	-	-
	Static Water Level (mbgl):	-	-

AWN Project Ref: 18-10021	Client: Dunnes Stores	Excavation date: 13/03/2018
Ground Level (mAOD): -	Location: Cornelscourt, Co. Dublin	Geology log: CD
Grid Reference: 0722340 / 0725855		

SUBSURFACE PROFILE	Depth mbgl	Lithology	BACKFILL
Ground surface			
0.0 Topsoil			
0.1			
0.2 MADE GROUND consisting of; yellow bricks, red bricks, plastic bags, plastic broke pipe fragments and parts of a old steel fencing.	0.20		
0.3			
0.4			
0.5 Soft light brown slightly sandy, gravelly CLAY with cobbles and boulders, Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Gravels are wet.	0.45		
0.6			
0.7			
0.8			
0.9 Stiff to firm dark brown slightly sandy, slightly gravelly CLAY with some cobbles and boulders, Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp.	0.80		
1.0			
1.1			
1.2 Detail: 1.1m, Groundwater Strike, slow to moderate ingress		▼	
1.3			
1.4			
1.5			
1.6			
1.7			
1.8			
1.9			
2.0			
2.1			
2.2			
2.3			
2.4			
2.5			
2.6			
2.7			
2.8			
2.9			
3.0 Light brown to yellow slightly sandy GRAVELS. Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp.	3.00		
3.1			
3.2			
3.3			
3.4 End of Trial Pit 3.1 m			
3.5			
3.6			
3.7			
3.8			
3.9			
4.0			
4.1			
4.2			
4.3			
4.4			
4.5			
4.6			
4.7			
4.8			
4.9			
5.0			
5.1			
5.2			
5.3			
5.4			
5.5			
5.6			
5.7			
5.8			
5.9			
6.0			

Excavation Method: 13 ton tracked machine

Pit dimensions: 0.6m x 2.00 m x 3.10 m (depth)

Comments: Trial pit constructed directly east of the petrol station.

G/level (mAOD): -

Water Strikes (mbgl):

1.10

-

-

Contractor: Breffni Contractors

Static Water Level (mbgl):

-


AWN Project Ref: 18-10021	Client: Dunnes Stores	Excavation date: 13/03/2018
Ground Level (mAOD): -	Location: Cornelscourt, Co. Dublin	Geology log: CD
Grid Reference: 0722426 / 0725816		

SUBSURFACE PROFILE	Depth mbgl	Lithology	BACKFILL
Ground surface			
0.0 Topsoil			
0.1			
0.2			
0.3 Soft light brown slightly sandy, gravelly CLAY with cobbles and boulders, Sand is fine to coarse. Gravels are sub-angular to sub-rounded.	0.25		
0.4			
0.5			
0.6 Stiff to firm dark brown slightly sandy, slightly gravelly CLAY with some cobbles and boulders, Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp.	0.60		
0.7			
0.8			
0.9			
1.0			
1.1			
1.2 Detail: 1.2m, Groundwater Strike, slow ingress		▼	
1.3			
1.4			
1.5			
1.6			
1.7			
1.8			
1.9			
2.0			
2.1			
2.2			
2.3			
2.4			
2.5			
2.6			
2.7			
2.8 Detail: 2.8m, Groundwater Strike, slow ingress		▼	
2.9			
3.0 Light brown to yellow slightly sandy GRAVELS. Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp.	3.00		
3.1			
3.2			
3.3			
3.4			
3.5 End of Trial Pit 3.45 m	3.45		
3.6			
3.7			
3.8			
3.9			
4.0			
4.1			
4.2			
4.3			
4.4			
4.5			
4.6			
4.7			
4.8			
4.9			
5.0			
5.1			
5.2			
5.3			
5.4			
5.5			
5.6			
5.7			
5.8			
5.9			
6.0			

BACKFILLED WITH ARISINGS


Excavation Method: 13 ton tracked machine	Pit dimensions: 0.6m x 2.00 m x 3.45 m (depth)		
Comments:	G/level (mAOD): -		
	Water Strikes (mbgl):	1.20	2.80
Contractor: Breffni Contractors	Static Water Level (mbgl):	-	

AWN Project Ref: 18-10021	Client: Dunnes Stores	Excavation date: 13/03/2018
Ground Level (mAOD): -	Location: Cornelscourt, Co. Dublin	Geology log: CD
Grid Reference: 0722426 / 0725816		

SUBSURFACE PROFILE	Depth mbgl	Lithology	BACKFILL
Ground surface			
0.0 Topsoil			
0.1			
0.2			
0.3 Soft light brown slightly sandy, gravelly CLAY with cobbles and boulders, Sand is fine to coarse. Gravels are sub-angular to sub-rounded.	0.25		BACKFILLED WITH ARISINGS
0.4			
0.5			
0.6	0.60		
0.7 Stiff to firm dark brown slightly sandy, slightly gravelly CLAY with some cobbles and boulders, Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp.			
0.8			
0.9			
1.0 Detail: 0.8m, Groundwater Strike, slow ingress			
1.1			
1.2			
1.3			
1.4			
1.5			
1.6			
1.7			
1.8			
1.9			
2.0			
2.1			
2.2			
2.3			
2.4			
2.5			
2.6 Detail: 2.0m, no hydrocarbon odour present.			
2.7			
2.8			
2.9			
3.0	3.00		
3.1 Light brown to yellow slightly sandy GRAVELS. Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp.			
3.2			
3.3 Detail: 3.3m, no hydrocarbon odour present.			
3.4			
3.5 End of Trial Pit 3.5 m	3.50		
3.6			
3.7			
3.8			
3.9			
4.0			
4.1			
4.2			
4.3			
4.4			
4.5			
4.6			
4.7			
4.8			
4.9			
5.0			
5.1			
5.2			
5.3			
5.4			
5.5			
5.6			
5.7			
5.8			
5.9			
6.0			

Excavation Method: 13 ton tracked machine	Pit dimensions: 0.6m x 2.00 m x 3.50 m (depth)		
Comments:	G/level (mAOD): -		
	Water Strikes (mbgl):	0.80	-
Contractor: Breffni Contractors	Static Water Level (mbgl):		-

AWN Project Ref: 18-10021	Client: Dunnes Stores	Excavation date: 13/03/2018
Ground Level (mAOD): -	Location: Cornelscourt, Co. Dublin	Geology log: CD
Grid Reference: 0722335 / 0725816		

SUBSURFACE PROFILE	Depth mbgl	Lithology	BACKFILL
Ground surface			
0.0 Topsoil			
0.1			
0.2			
0.3 Soft light brown slightly sandy, gravelly CLAY with cobbles and boulders, Sand is fine to coarse. Gravels are sub-angular to sub-rounded.	0.25		BACKFILLED WITH ARISINGS
0.4			
0.5			
0.6			
0.7 Detail: 0.70m, Groundwater Strike, slow ingress			
0.8			
0.9 Stiff to firm dark brown slightly sandy, slightly gravelly CLAY with some cobbles and boulders, Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp.	0.80		
1.0			
1.1			
1.2			
1.3			
1.4			
1.5			
1.6			
1.7			
1.8			
1.9			
2.0			
2.1 Detail: 2.1m, Strong hydrocarbon odour emitting from the pit. CLAY is stained grey to dark grey.			
2.2			
2.3	2.30		
End of Trial Pit 2.3 m			
2.4			
2.5			
2.6			
2.7			
2.8			
2.9			
3.0			
3.1			
3.2			
3.3			
3.4			
3.5			
3.6			
3.7			
3.8			
3.9			
4.0			
4.1			
4.2			
4.3			
4.4			
4.5			
4.6			
4.7			
4.8			
4.9			
5.0			
5.1			
5.2			
5.3			
5.4			
5.5			
5.6			
5.7			
5.8			
5.9			
6.0			

Excavation Method: 13 ton tracked machine	Pit dimensions: 0.6m x 2.00 m x 2.30 m (depth)		
Comments: Contamination confirmed at western boundary of the site.	G/level (mAOD): -		
	Water Strikes (mbgl):	0.70	-
Contractor: Breffni Contractors	Static Water Level (mbgl):		-

AWN Project Ref: 18-10021	Client: Dunnes Stores	Excavation date: 13/03/2018
Ground Level (mAOD): -	Location: Cornelscourt, Co. Dublin	Geology log: CD

SUBSURFACE PROFILE	Depth mbgl	Lithology	BACKFILL
Ground surface			
0.0 Topsoil			
0.1			
0.2			
0.3 Soft light brown slightly sandy, gravelly CLAY with cobbles and boulders, Sand is fine to coarse. Gravels are sub-angular to sub-rounded.	0.25		
0.4			
0.5			
0.6			
0.7 Detail: 0.70m, Groundwater Strike, slow ingress		▼	
0.8			
0.9 Stiff to firm dark brown slightly sandy, slightly gravelly CLAY with some cobbles and boulders, Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp.	0.80		
1.0			
1.1			
1.2			
1.3			
1.4			
1.5			
1.6			
1.7			
1.8			
1.9			
2.0			
2.1 Detail: 2.1m, Strong hydrocarbon odour emitting from the pit. CLAY is stained grey to dark grey.			
2.2			
2.3	2.30		
2.4			
2.5			
2.6			
2.7			
2.8			
2.9			
3.0			
3.1			
3.2			
3.3			
3.4			
3.5			
3.6			
3.7			
3.8			
3.9			
4.0			
4.1			
4.2			
4.3			
4.4			
4.5			
4.6			
4.7			
4.8			
4.9			
5.0			
5.1			
5.2			
5.3			
5.4			
5.5			
5.6			
5.7			
5.8			
5.9			
6.0			

Excavation Method: 13 ton tracked machine

Pit dimensions: 0.6m x 2.00 m x 2.3 m (depth)

Comments: Contamination confirmed at north-western corner of the site at the petrol station building.

G/level (mAOD): -

Water Strikes (mbgl):

0.70

-

-

Contractor: Breffni Contractors

Static Water Level (mbgl):

-

AWN Project Ref: 18-10021	Client: Dunnes Stores	Excavation date: 09/03/2018
Ground Level (mAOD): -	Location: Cornelscourt, Co. Dublin	Geology log: CD
Grid Reference: 0722355 / 0725877		

SUBSURFACE PROFILE	Depth mbgl	Lithology	BACKFILL
Ground surface			
0.0 Tarmac			
0.1			
0.2	0.20		
0.3 Grey loose gravelly FILL material used for engineering purposes			
0.4			
0.5			
0.6	0.60		
0.7 Stiff to firm dark brown slightly sandy, slightly gravelly CLAY with some cobbles and boulders. Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp.			
0.8			
0.9			
1.0			
1.1			
1.2 Detail: 1.2m, Groundwater Strike, slow ingress		▼	BACKFILLED WITH GRAVELS AND
1.3			
1.4			
1.5			
1.6			
1.7			
1.8			
1.9			
2.0	2.00		
2.1			
2.2 End of Trial Pit 2.00 m			
2.3			
2.4			
2.5			
2.6			
2.7			
2.8			
2.9			
3.0			
3.1			
3.2			
3.3			
3.4			
3.5			
3.6			
3.7			
3.8			
3.9			
4.0			
4.1			
4.2			
4.3			
4.4			
4.5			
4.6			
4.7			
4.8			
4.9			
5.0			
5.1			
5.2			
5.3			
5.4			
5.5			
5.6			
5.7			
5.8			
5.9			
6.0			
Excavation Method: Light Cable Percussive	Pilot hole		
Comments: Pilot Hole	G/level (mAOD): -		
	Water Strikes (mbgl):	1.20	-
Contractor: Ronan Doyle Contractor	Static Water Level (mbgl):		-

AWN Project Ref: 18-10021	Client: Dunnes Stores	Excavation date: 09/03/2018
Ground Level (mAOD): -	Location: Cornelscourt, Co. Dublin	Geology log: CD
Grid Reference: 0722360 / 0725929		

SUBSURFACE PROFILE	Depth mbgl	Lithology	BACKFILL
Ground surface			
0.0 Tarmac			
0.1			
0.2	0.20		
0.3 Grey loose gravelly FILL material used for engineering purposes			
0.4			
0.5			
0.6	0.60		
0.7 Stiff to firm dark brown slightly sandy, slightly gravelly CLAY with some cobbles and boulders. Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp.			
0.8			
0.9			
1.0			
1.1 Detail: 1.1m, Groundwater Strike, slow ingress		▼	
1.2			
1.3			
1.4			
1.5			
1.6			
1.7			
1.8			
1.9			
2.0			
2.1			
2.2			
2.3			
2.4			
2.5			
2.6			
2.7			
2.8			
2.9			
3.0	3.00		
3.1			
3.2			
3.3			
3.4			
3.5			
3.6			
3.7			
3.8			
3.9			
4.0			
4.1			
4.2			
4.3			
4.4			
4.5			
4.6			
4.7			
4.8			
4.9			
5.0			
5.1			
5.2			
5.3			
5.4			
5.5			
5.6			
5.7			
5.8			
5.9			
6.0			




Excavation Method: Light Cable Percussive	Pilot hole		
Comments: Pilot Hole	G/level (mAOD): -		
	Water Strikes (mbgl):	1.20	-
Contractor: Ronan Doyle Contractor	Static Water Level (mbgl):		-

AWN Project Ref: 18-10021	Client: Dunnes Stores	Excavation date: 09/03/2018
Ground Level (mAOD): -	Location: Cornelscourt, Co. Dublin	Geology log: CD
Grid Reference: 0722388 / 0725912		

SUBSURFACE PROFILE	Depth mbgl	Lithology	BACKFILL
Ground surface			
0.0 Tarmac			
0.1			
0.2	0.20		
0.3 Grey loose gravelly FILL material used for engineering purposes			
0.4			
0.5			
0.6	0.60		
0.7 Stiff to firm dark brown slightly sandy, slightly gravelly CLAY with some cobbles and boulders, Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp.			
0.8			
0.9			
1.0			
1.1 Detail: 1.1m, Groundwater Strike, slow ingress		▼	
1.2			
1.3			
1.4			
1.5			
1.6			
1.7			
1.8			
1.9			
2.0	2.00		
2.1			
2.2			
2.3			
2.4			
2.5			
2.6			
2.7			
2.8			
2.9			
3.0			
3.1			
3.2			
3.3			
3.4			
3.5			
3.6			
3.7			
3.8			
3.9			
4.0			
4.1			
4.2			
4.3			
4.4			
4.5			
4.6			
4.7			
4.8			
4.9			
5.0			
5.1			
5.2			
5.3			
5.4			
5.5			
5.6			
5.7			
5.8			
5.9			
6.0			

Excavation Method: Light Cable Percussive	Pilot hole		
Comments: Pilot Hole	G/level (mAOD): -		
	Water Strikes (mbgl):	1.20	-
Contractor: Ronan Doyle Contractor	Static Water Level (mbgl):		-

AWN Project Ref: 18-10021	Client: Dunnes Stores	Excavation date: 09/03/2018
Ground Level (mAOD): -	Location: Cornelscourt, Co. Dublin	Geology log: CD
Grid Reference: 0722370 / 0725900		

SUBSURFACE PROFILE		Depth mbgl	Lithology	BACKFILL
Ground surface				
0.0	Tarmac			
0.1				
0.2		0.20		
0.3	Grey loose gravelly FILL material used for engineering purposes			
0.4				
0.5				
0.6		0.60		
0.7	Stiff to firm dark brown slightly sandy, slightly gravelly CLAY with some cobbles and boulders. Sand is fine to coarse. Gravels are sub-angular to sub-rounded. Damp.			
0.8				
0.9				
1.0				
1.1				
1.2				
1.3				
1.4	Detail: 1.3m, Groundwater Strike, slow ingress		▼	
1.5				
1.6				
1.7				
1.8				
1.9				
2.0		2.00		
2.1	End of Trial Pit 2.00 m			
2.2				
2.3				
2.4				
2.5				
2.6				
2.7				
2.8				
2.9				
3.0				
3.1				
3.2				
3.3				
3.4				
3.5				
3.6				
3.7				
3.8				
3.9				
4.0				
4.1				
4.2				
4.3				
4.4				
4.5				
4.6				
4.7				
4.8				
4.9				
5.0				
5.1				
5.2				
5.3				
5.4				
5.5				
5.6				
5.7				
5.8				
5.9				
6.0				
Excavation Method: Light Cable Percussive		Pilot hole		
Comments: Pilot Hole		G/level (mAOD): -		
Contractor: Ronan Doyle Contractor		Water Strikes (mbgl):	1.20	-
		Static Water Level (mbgl):		-

BACKFILLED WITH GRAVELS AND

APPENDIX B

**Laboratory Results (JEL 18/3937) &
Soil Analysis Tables**



Exova Jones Environmental

Registered Address : Exova (UK) Ltd, Lochend Industrial Estate, Newbridge, Midlothian, EH28 8PL

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4225

Attention : Colm Driver
Date : 29th March, 2018
Your reference : 18-10021
Our reference : Test Report 18/3937 Batch 1
Location : Cornelscourt
Date samples received : 15th March, 2018
Status : Final report
Issue : 1

Sixty five samples were received for analysis on 15th March, 2018 of which fourteen 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.

Where Waste Acceptance Criteria Suite (EC Decision of 19 December 2002 (2003/33/EC)) has been requested, all analyses have been performed using the relevant EN methods where they exist.

Compiled By:

Bruce Leslie
Project Co-ordinator

Client Name: AWN Consulting
Reference: 18-10021
Location: Cornelscourt
Contact: Colm Driver
JE Job No.: 18/3937

Report : Solid

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

J E Sample No.	11-12	25-26	39-40	46	52-53	57-58	63-65	66-67	69-70	71-72	Please see attached notes for all abbreviations and acronyms		
Sample ID	TP18-02	TP18-04	TP18-06	TP18-07	TP18-08	TP18-09	TP18-10	TP18-10	TP18-11	TP18-11			
Depth	2.30	2.10	2.20	2.10	2.20	2.20	2.30	3.40	3.30	3.50			
COC No / misc													
Containers	V J	V J	V J	J	J T	J T	V J T	V J	J T	J T			
Sample Date	12/03/2018	12/03/2018	12/03/2018	12/03/2018	12/03/2018	12/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018			
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	15/03/2018	15/03/2018	15/03/2018	15/03/2018	15/03/2018	15/03/2018	15/03/2018	15/03/2018	15/03/2018	15/03/2018	LOD/LOR	Units	Method No.
Antimony	-	-	-	-	-	-	2	-	-	2	<1	mg/kg	TM30/PM15
Arsenic #	10.8	9.1	11.0	9.8	-	10.7	31.5	-	-	7.5	<0.5	mg/kg	TM30/PM15
Barium #	-	-	-	-	-	-	74	-	-	46	<1	mg/kg	TM30/PM15
Cadmium #	1.5	1.9	2.2	1.9	-	2.6	1.8	-	-	0.9	<0.1	mg/kg	TM30/PM15
Chromium #	50.7	40.5	45.0	54.3	-	38.9	48.0	-	-	54.5	<0.5	mg/kg	TM30/PM15
Copper #	22	19	24	25	-	17	25	-	-	17	<1	mg/kg	TM30/PM15
Lead #	16	13	23	17	-	17	25	-	-	14	<5	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	-	-	<0.1	<0.1	mg/kg	TM30/PM15
Molybdenum #	-	-	-	-	-	-	4.0	-	-	2.8	<0.1	mg/kg	TM30/PM15
Nickel #	44.5	34.1	40.4	39.0	-	34.2	39.2	-	-	22.7	<0.7	mg/kg	TM30/PM15
Selenium #	<1	1	<1	1	-	1	1	-	-	<1	<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	-	-	-	-	-	-	212	-	-	152	<50	mg/kg	TM50/PM29
Water Soluble Boron #	-	-	-	-	-	-	0.6	-	-	0.3	<0.1	mg/kg	TM74/PM32
Zinc #	75	68	90	85	-	70	81	-	-	56	<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	-	-	-	-	-	-	<0.04	-	-	0.30	<0.04	mg/kg	TM4/PM8
Acenaphthylene	-	-	-	-	-	-	<0.03	-	-	0.25	<0.03	mg/kg	TM4/PM8
Acenaphthene #	-	-	-	-	-	-	<0.05	-	-	0.23	<0.05	mg/kg	TM4/PM8
Fluorene #	-	-	-	-	-	-	0.04	-	-	0.69	<0.04	mg/kg	TM4/PM8
Phenanthrene #	-	-	-	-	-	-	0.10	-	-	1.30	<0.03	mg/kg	TM4/PM8
Anthracene #	-	-	-	-	-	-	<0.04	-	-	<0.04	<0.04	mg/kg	TM4/PM8
Fluoranthene #	-	-	-	-	-	-	<0.03	-	-	0.04	<0.03	mg/kg	TM4/PM8
Pyrene #	-	-	-	-	-	-	<0.03	-	-	0.14	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	-	-	-	-	-	-	<0.06	-	-	<0.06	<0.06	mg/kg	TM4/PM8
Chrysene #	-	-	-	-	-	-	<0.02	-	-	0.03	<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	-	-	-	-	-	-	<0.07	-	-	<0.07	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	-	-	-	-	-	-	<0.04	-	-	<0.04	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	-	-	-	-	-	-	<0.04	-	-	<0.04	<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	-	-	-	-	-	-	<0.04	-	-	<0.04	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	-	-	-	-	-	-	<0.04	-	-	<0.04	<0.04	mg/kg	TM4/PM8
Coronene	-	-	-	-	-	-	<0.04	-	-	<0.04	<0.04	mg/kg	TM4/PM8
PAH 6 Total #	-	-	-	-	-	-	<0.22	-	-	<0.22	<0.22	mg/kg	TM4/PM8
PAH 17 Total	-	-	-	-	-	-	<0.64	-	-	2.98	<0.64	mg/kg	TM4/PM8
Benzo(b)fluoranthene	-	-	-	-	-	-	<0.05	-	-	<0.05	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	-	-	-	-	-	-	<0.02	-	-	<0.02	<0.02	mg/kg	TM4/PM8
Benzo(j)fluoranthene	-	-	-	-	-	-	<1	-	-	<1	<1	mg/kg	TM4/PM8
PAH Surrogate % Recovery	-	-	-	-	-	-	75	-	-	73	<0	%	TM4/PM8
Mineral Oil (C10-C40)	-	-	-	-	-	-	220	-	-	695	<30	mg/kg	TM5/PM8/PM16

Client Name: AWN Consulting
 Reference: 18-10021
 Location: Cornelscourt
 Contact: Colm Driver
 JE Job No.: 18/3937

Report : Solid

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

J E Sample No.	11-12	25-26	39-40	46	52-53	57-58	63-65	66-67	69-70	71-72	Please see attached notes for all abbreviations and acronyms		
Sample ID	TP18-02	TP18-04	TP18-06	TP18-07	TP18-08	TP18-09	TP18-10	TP18-10	TP18-11	TP18-11			
Depth	2.30	2.10	2.20	2.10	2.20	2.20	2.30	3.40	3.30	3.50			
COC No / misc													
Containers	V J	V J	V J	J	J T	J T	V J T	V J	J T	J T			
Sample Date	12/03/2018	12/03/2018	12/03/2018	12/03/2018	12/03/2018	12/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018			
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	15/03/2018	15/03/2018	15/03/2018	15/03/2018	15/03/2018	15/03/2018	15/03/2018	15/03/2018	15/03/2018	15/03/2018	LOD/LOR	Units	Method No.
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1	<0.1	<0.1	-	<0.1	<0.1	0.4	0.8	0.1	2.2	<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1	<0.1	<0.1	-	<0.1	<0.1	2.0	4.8	0.3	6.8	<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1	<0.1	<0.1	-	<0.1	<0.1	6.4	7.3	6.0	26.6**	<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2	<0.2	<0.2	-	<0.2	<0.2	34.8	75.2	80.4	100.6	<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 #	<4	<4	<4	-	<4	<4	76	178	255	242	<4	mg/kg	TM5/PM8/PM16
>C16-C21 #	<7	<7	<7	-	<7	<7	81	181	276	260	<7	mg/kg	TM5/PM8/PM16
>C21-C35 #	<7	<7	<7	-	<7	<7	28	57	101	92	<7	mg/kg	TM5/PM8/PM16
>C35-C40	-	-	-	-	-	-	<7	-	-	<7	<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-40	-	-	-	-	-	-	229	-	-	730	<26	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35	<19	<19	<19	-	<19	<19	-	504	719	-	<19	mg/kg	TM5/PM8/PM16
>C6-C10	-	-	-	-	-	-	8.4	-	-	33.4	<0.1	mg/kg	TM36/PM12
>C10-C25	-	-	-	-	-	-	207	-	-	698	<10	mg/kg	TM5/PM8/PM16
>C25-C35	-	-	-	-	-	-	<10	-	-	13	<10	mg/kg	TM5/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	0.6	0.2	<0.1	4.6**	<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2	<0.2	<0.2	-	<0.2	<0.2	24.2	53.2	23.2	85.3	<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 #	<4	<4	<4	-	<4	<4	43	95	150	181	<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 #	<7	<7	<7	-	<7	<7	59	121	206	190	<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 #	<7	<7	<7	-	<7	<7	23	42	66	57	<7	mg/kg	TM5/PM8/PM16
>EC35-EC40	-	-	-	-	-	-	<7	-	-	<7	<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 #	<19	<19	<19	-	<19	<19	-	311	445	-	<19	mg/kg	TM5/PM8/PM16
Total aromatics C5-40	-	-	-	-	-	-	150	-	-	518	<26	mg/kg	TM5/PM8/PM16
Total aliphatics and aromatics(C5-35)	<38	<38	<38	-	<38	<38	-	815	1164	-	<38	mg/kg	TM5/PM8/PM16
Total aliphatics and aromatics(C5-40)	-	-	-	-	-	-	379	-	-	1248	<52	mg/kg	TM5/PM8/PM16
>EC6-EC10 #	-	-	-	-	-	-	0.6	-	-	4.6	<0.1	mg/kg	TM36/PM12
>EC10-EC25	-	-	-	-	-	-	137	-	-	505	<10	mg/kg	TM5/PM8/PM16
>EC25-EC35	-	-	-	-	-	-	<10	-	-	<10	<10	mg/kg	TM5/PM8/PM16
MTBE #	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
Benzene #	<5	<5	<5	-	<5	<5	9	107	<5	<5	<5	ug/kg	TM31/PM12
Toluene #	<5	<5	<5	-	<5	<5	20	35	<5	<5	<5	ug/kg	TM31/PM12
Ethylbenzene #	<5	<5	<5	-	<5	<5	35	41	<5	1073	<5	ug/kg	TM31/PM12
m/p-Xylene #	<5	<5	<5	-	<5	<5	425	115	97	3483	<5	ug/kg	TM31/PM12
o-Xylene #	<5	<5	<5	-	<5	<5	62	91	<5	<5	<5	ug/kg	TM31/PM12
PCB 28 #	-	-	-	-	-	-	<5	-	-	<5	<5	ug/kg	TM17/PM8
PCB 52 #	-	-	-	-	-	-	<5	-	-	<5	<5	ug/kg	TM17/PM8
PCB 101 #	-	-	-	-	-	-	<5	-	-	<5	<5	ug/kg	TM17/PM8
PCB 118 #	-	-	-	-	-	-	<5	-	-	<5	<5	ug/kg	TM17/PM8
PCB 138 #	-	-	-	-	-	-	<5	-	-	<5	<5	ug/kg	TM17/PM8

Client Name: AWN Consulting
 Reference: 18-10021
 Location: Cornelscourt
 Contact: Colm Driver
 JE Job No.: 18/3937

Report : Solid

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

J E Sample No.	11-12	25-26	39-40	46	52-53	57-58	63-65	66-67	69-70	71-72	Please see attached notes for all abbreviations and acronyms		
Sample ID	TP18-02	TP18-04	TP18-06	TP18-07	TP18-08	TP18-09	TP18-10	TP18-10	TP18-11	TP18-11			
Depth	2.30	2.10	2.20	2.10	2.20	2.20	2.30	3.40	3.30	3.50			
COC No / misc													
Containers	V J	V J	V J	J	J T	J T	V J T	V J	J T	J T			
Sample Date	12/03/2018	12/03/2018	12/03/2018	12/03/2018	12/03/2018	12/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018			
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	15/03/2018	15/03/2018	15/03/2018	15/03/2018	15/03/2018	15/03/2018	15/03/2018	15/03/2018	15/03/2018	15/03/2018	LOD/LOR	Units	Method No.
PCB 153 #	-	-	-	-	-	-	<5	-	-	<5	<5	ug/kg	TM17/PM8
PCB 180 #	-	-	-	-	-	-	<5	-	-	<5	<5	ug/kg	TM17/PM8
Total 7 PCBs #	-	-	-	-	-	-	<35	-	-	<35	<35	ug/kg	TM17/PM8
Phenol #	-	-	-	-	-	-	<0.01	-	-	<0.01	<0.01	mg/kg	TM26/PM21
Natural Moisture Content	15.2	10.5	13.0	-	14.6	12.0	11.3	10.1	12.7	9.6	<0.1	%	PM4/PM0
Moisture Content (% Wet Weight)	-	-	-	-	-	-	10.2	-	-	8.8	<0.1	%	PM4/PM0
% Dry Matter 105°C	-	-	-	-	-	-	87.7	-	-	90.9	<0.1	%	NONE/PM4
Hexavalent Chromium #	-	-	-	-	-	-	<0.3	-	-	<0.3	<0.3	mg/kg	TM38/PM20
Chromium III	-	-	-	-	-	-	48.0	-	-	54.5	<0.5	mg/kg	NONE/NONE
Total Cyanide #	-	-	-	-	-	-	<0.5	-	-	<0.5	<0.5	mg/kg	TM89/PM45
Total Organic Carbon #	-	-	-	-	-	-	0.31	-	-	0.22	<0.02	%	TM21/PM24
Sulphide	-	-	-	-	-	-	<10	-	-	<10	<10	mg/kg	TM106/PM119
Elemental Sulphur	-	-	-	-	-	-	5	-	-	5	<1	mg/kg	TM108/PM114
pH #	-	-	-	-	-	-	8.02	-	-	8.32	<0.01	pH units	TM73/PM11
Mass of raw test portion	-	-	-	-	-	-	0.1031	-	-	0.0994		kg	NONE/PM17
Mass of dried test portion	-	-	-	-	-	-	0.09	-	-	0.09		kg	NONE/PM17

Client Name: AWN Consulting
Reference: 18-10021
Location: Cornelscourt
Contact: Colm Driver
JE Job No.: 18/3937

Report : Solid

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

J E Sample No.	81-82	99-100	106	128-130								Please see attached notes for all abbreviations and acronyms			
	Sample ID	TP18-13	TP18-16	PH18-01											PH18-04
Depth	2.20	2.60	1.90	2.00											
COC No / misc															
Containers	J T	J T	J	V J T											
Sample Date	13/03/2018	13/03/2018	09/03/2018	09/03/2018											
Sample Type	Soil	Soil	Soil	Soil											
Batch Number	1	1	1	1											
Date of Receipt	15/03/2018	15/03/2018	15/03/2018	15/03/2018								LOD/LOR	Units	Method No.	
Antimony	-	-	-	-								<1	mg/kg	TM30/PM15	
Arsenic #	-	-	11.1	-								<0.5	mg/kg	TM30/PM15	
Barium #	-	-	-	-								<1	mg/kg	TM30/PM15	
Cadmium #	-	-	0.6	-								<0.1	mg/kg	TM30/PM15	
Chromium #	-	-	56.8	-								<0.5	mg/kg	TM30/PM15	
Copper #	-	-	20	-								<1	mg/kg	TM30/PM15	
Lead #	-	-	13	-								<5	mg/kg	TM30/PM15	
Mercury #	-	-	<0.1	-								<0.1	mg/kg	TM30/PM15	
Molybdenum #	-	-	-	-								<0.1	mg/kg	TM30/PM15	
Nickel #	-	-	42.0	-								<0.7	mg/kg	TM30/PM15	
Selenium #	-	-	<1	-								<1	mg/kg	TM30/PM15	
Total Sulphate as SO4 #	-	-	-	-								<50	mg/kg	TM50/PM29	
Water Soluble Boron #	-	-	-	-								<0.1	mg/kg	TM74/PM32	
Zinc #	-	-	64	-								<5	mg/kg	TM30/PM15	
PAH MS															
Naphthalene #	-	-	-	-								<0.04	mg/kg	TM4/PM8	
Acenaphthylene	-	-	-	-								<0.03	mg/kg	TM4/PM8	
Acenaphthene #	-	-	-	-								<0.05	mg/kg	TM4/PM8	
Fluorene #	-	-	-	-								<0.04	mg/kg	TM4/PM8	
Phenanthrene #	-	-	-	-								<0.03	mg/kg	TM4/PM8	
Anthracene #	-	-	-	-								<0.04	mg/kg	TM4/PM8	
Fluoranthene #	-	-	-	-								<0.03	mg/kg	TM4/PM8	
Pyrene #	-	-	-	-								<0.03	mg/kg	TM4/PM8	
Benzo(a)anthracene #	-	-	-	-								<0.06	mg/kg	TM4/PM8	
Chrysene #	-	-	-	-								<0.02	mg/kg	TM4/PM8	
Benzo(b)fluoranthene #	-	-	-	-								<0.07	mg/kg	TM4/PM8	
Benzo(a)pyrene #	-	-	-	-								<0.04	mg/kg	TM4/PM8	
Indeno(123cd)pyrene #	-	-	-	-								<0.04	mg/kg	TM4/PM8	
Dibenzo(ah)anthracene #	-	-	-	-								<0.04	mg/kg	TM4/PM8	
Benzo(ghi)perylene #	-	-	-	-								<0.04	mg/kg	TM4/PM8	
Coronene	-	-	-	-								<0.04	mg/kg	TM4/PM8	
PAH 6 Total #	-	-	-	-								<0.22	mg/kg	TM4/PM8	
PAH 17 Total	-	-	-	-								<0.64	mg/kg	TM4/PM8	
Benzo(b)fluoranthene	-	-	-	-								<0.05	mg/kg	TM4/PM8	
Benzo(k)fluoranthene	-	-	-	-								<0.02	mg/kg	TM4/PM8	
Benzo(j)fluoranthene	-	-	-	-								<1	mg/kg	TM4/PM8	
PAH Surrogate % Recovery	-	-	-	-								<0	%	TM4/PM8	
Mineral Oil (C10-C40)	-	-	-	-								<30	mg/kg	TM5/PM8/PM16	

Client Name: AWN Consulting
Reference: 18-10021
Location: Cornelscourt
Contact: Colm Driver
JE Job No.: 18/3937

Report : Solid

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

J E Sample No.	81-82	99-100	106	128-130																	
Sample ID	TP18-13	TP18-16	PH18-01	PH18-04																	
Depth	2.20	2.60	1.90	2.00																	
COC No / misc																					
Containers	J T	J T	J	V J T																	
Sample Date	13/03/2018	13/03/2018	09/03/2018	09/03/2018																	
Sample Type	Soil	Soil	Soil	Soil																	
Batch Number	1	1	1	1																	
Date of Receipt	15/03/2018	15/03/2018	15/03/2018	15/03/2018																	
											LOD/LOR	Units	Method No.								
TPH CWG																					
Aliphatics																					
>C5-C6 #	<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	mg/kg	TM36/PM12
>C8-C10	<0.1	3.9	<0.1	<0.1															<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2	56.1	<0.2	<0.2															<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 #	<4	192	<4	<4															<4	mg/kg	TM5/PM8/PM16
>C16-C21 #	<7	219	<7	<7															<7	mg/kg	TM5/PM8/PM16
>C21-C35 #	<7	84	<7	<7															<7	mg/kg	TM5/PM8/PM16
>C35-C40	-	-	-	-															<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-40	-	-	-	-															<26	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35	<19	555	<19	<19															<19	mg/kg	TM5/PM8/PM16
>C6-C10	-	-	-	-															<0.1	mg/kg	TM36/PM12
>C10-C25	-	-	-	-															<10	mg/kg	TM5/PM8/PM16
>C25-C35	-	-	-	-															<10	mg/kg	TM5/PM8/PM16
Aromatics																					
>C5-EC7 #	<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	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1	<0.1	<0.1	<0.1															<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2	23.2	<0.2	<0.2															<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 #	<4	134	<4	<4															<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 #	<7	176	<7	<7															<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 #	<7	54	<7	<7															<7	mg/kg	TM5/PM8/PM16
>EC35-EC40	-	-	-	-															<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 #	<19	387	<19	<19															<19	mg/kg	TM5/PM8/PM16
Total aromatics C5-40	-	-	-	-															<26	mg/kg	TM5/PM8/PM16
Total aliphatics and aromatics(C5-35)	<38	942	<38	<38															<38	mg/kg	TM5/PM8/PM16
Total aliphatics and aromatics(C5-40)	-	-	-	-															<52	mg/kg	TM5/PM8/PM16
>EC6-EC10 #	-	-	-	-															<0.1	mg/kg	TM36/PM12
>EC10-EC25	-	-	-	-															<10	mg/kg	TM5/PM8/PM16
>EC25-EC35	-	-	-	-															<10	mg/kg	TM5/PM8/PM16
MTBE #	<5	<5	<5	<5															<5	ug/kg	TM31/PM12
Benzene #	<5	<5	<5	<5															<5	ug/kg	TM31/PM12
Toluene #	<5	<5	<5	<5															<5	ug/kg	TM31/PM12
Ethylbenzene #	<5	<5	<5	<5															<5	ug/kg	TM31/PM12
m/p-Xylene #	<5	38	<5	<5															<5	ug/kg	TM31/PM12
o-Xylene #	<5	<5	<5	<5															<5	ug/kg	TM31/PM12
PCB 28 #	-	-	-	-															<5	ug/kg	TM17/PM8
PCB 52 #	-	-	-	-															<5	ug/kg	TM17/PM8
PCB 101 #	-	-	-	-															<5	ug/kg	TM17/PM8
PCB 118 #	-	-	-	-															<5	ug/kg	TM17/PM8
PCB 138 #	-	-	-	-															<5	ug/kg	TM17/PM8

Please see attached notes for all abbreviations and acronyms

Client Name: AWN Consulting
 Reference: 18-10021
 Location: Cornelscourt
 Contact: Colm Driver
 JE Job No.: 18/3937

Report : Solid

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

J E Sample No.	81-82	99-100	106	128-130										Please see attached notes for all abbreviations and acronyms					
Sample ID	TP18-13	TP18-16	PH18-01	PH18-04															
Depth	2.20	2.60	1.90	2.00															
COC No / misc																			
Containers	J T	J T	J	V J T															
Sample Date	13/03/2018	13/03/2018	09/03/2018	09/03/2018															
Sample Type	Soil	Soil	Soil	Soil															
Batch Number	1	1	1	1															
Date of Receipt	15/03/2018	15/03/2018	15/03/2018	15/03/2018															
					LOD/LOR	Units	Method No.												
PCB 153 #	-	-	-	-	<5	ug/kg	TM17/PM8												
PCB 180 #	-	-	-	-	<5	ug/kg	TM17/PM8												
Total 7 PCBs #	-	-	-	-	<35	ug/kg	TM17/PM8												
Phenol #	-	-	-	-	<0.01	mg/kg	TM26/PM21												
Natural Moisture Content	13.4	14.4	14.6	13.9	<0.1	%	PM4/PM0												
Moisture Content (% Wet Weight)	-	-	-	-	<0.1	%	PM4/PM0												
% Dry Matter 105°C	-	-	-	-	<0.1	%	NONE/PM4												
Hexavalent Chromium #	-	-	-	-	<0.3	mg/kg	TM38/PM20												
Chromium III	-	-	-	-	<0.5	mg/kg	NONE/NONE												
Total Cyanide #	-	-	-	-	<0.5	mg/kg	TM89/PM45												
Total Organic Carbon #	-	-	-	-	<0.02	%	TM21/PM24												
Sulphide	-	-	-	-	<10	mg/kg	TM106/PM119												
Elemental Sulphur	-	-	-	-	<1	mg/kg	TM108/PM114												
pH #	-	-	-	-	<0.01	pH units	TM73/PM11												
Mass of raw test portion	-	-	-	-		kg	NONE/PM17												
Mass of dried test portion	-	-	-	-		kg	NONE/PM17												

Client Name: AWN Consulting
Reference: 18-10021
Location: Cornelscourt
Contact: Colm Driver
JE Job No.: 18/3937

Report : CEN 10:1 1 Batch

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

J E Sample No.	63-65	71-72																			
Sample ID	TP18-10	TP18-11																			
Depth	2.30	3.50																			
COC No / misc																					
Containers	V J T	J T																			
Sample Date	13/03/2018	13/03/2018																			
Sample Type	Soil	Soil																			
Batch Number	1	1																			
Date of Receipt	15/03/2018	15/03/2018																			
Dissolved Antimony #	<0.002	<0.002																<0.002	mg/l	TM30/PM17	
Dissolved Antimony (A10) #	<0.02	<0.02																<0.02	mg/kg	TM30/PM17	
Dissolved Arsenic #	<0.0025	<0.0025																<0.0025	mg/l	TM30/PM17	
Dissolved Arsenic (A10) #	<0.025	<0.025																<0.025	mg/kg	TM30/PM17	
Dissolved Barium #	0.045	0.004																<0.003	mg/l	TM30/PM17	
Dissolved Barium (A10) #	0.45	0.04																<0.03	mg/kg	TM30/PM17	
Dissolved Boron #	<0.012	<0.012																<0.012	mg/l	TM30/PM17	
Dissolved Boron (A10) #	<0.12	<0.12																<0.12	mg/kg	TM30/PM17	
Dissolved Cadmium #	<0.0005	<0.0005																<0.0005	mg/l	TM30/PM17	
Dissolved Cadmium (A10) #	<0.005	<0.005																<0.005	mg/kg	TM30/PM17	
Dissolved Chromium #	<0.0015	<0.0015																<0.0015	mg/l	TM30/PM17	
Dissolved Chromium (A10) #	<0.015	<0.015																<0.015	mg/kg	TM30/PM17	
Dissolved Copper #	<0.007	<0.007																<0.007	mg/l	TM30/PM17	
Dissolved Copper (A10) #	<0.07	<0.07																<0.07	mg/kg	TM30/PM17	
Dissolved Lead #	<0.005	<0.005																<0.005	mg/l	TM30/PM17	
Dissolved Lead (A10) #	<0.05	<0.05																<0.05	mg/kg	TM30/PM17	
Dissolved Molybdenum #	0.009	0.006																<0.002	mg/l	TM30/PM17	
Dissolved Molybdenum (A10) #	0.09	0.06																<0.02	mg/kg	TM30/PM17	
Dissolved Nickel #	<0.002	<0.002																<0.002	mg/l	TM30/PM17	
Dissolved Nickel (A10) #	<0.02	<0.02																<0.02	mg/kg	TM30/PM17	
Dissolved Selenium #	<0.003	<0.003																<0.003	mg/l	TM30/PM17	
Dissolved Selenium (A10) #	<0.03	<0.03																<0.03	mg/kg	TM30/PM17	
Dissolved Zinc #	<0.003	<0.003																<0.003	mg/l	TM30/PM17	
Dissolved Zinc (A10) #	<0.03	<0.03																<0.03	mg/kg	TM30/PM17	
Mercury Dissolved by CVA#	<0.00001	<0.00001																<0.00001	mg/l	TM61/PM38	
Mercury Dissolved by CVA#	<0.0001	<0.0001																<0.0001	mg/kg	TM61/PM38	
Phenol	<0.01	<0.01																<0.01	mg/l	TM26/PM0	
Phenol	<0.1	<0.1																<0.1	mg/kg	TM26/PM0	
Fluoride	<0.3	<0.3																<0.3	mg/l	TM173/PM0	
Fluoride	<3	<3																<3	mg/kg	TM173/PM0	
Sulphate as SO4 #	0.86	0.30																<0.05	mg/l	TM38/PM0	
Sulphate as SO4 #	8.6	3.0																<0.5	mg/kg	TM38/PM0	
Chloride #	<0.3	<0.3																<0.3	mg/l	TM38/PM0	
Chloride #	<3	<3																<3	mg/kg	TM38/PM0	
Ammoniacal Nitrogen as N #	0.05	0.07																<0.03	mg/l	TM38/PM0	
Ammoniacal Nitrogen as N #	0.5	0.7																<0.3	mg/kg	TM38/PM0	
Dissolved Organic Carbon	2	3																<2	mg/l	TM60/PM0	
Dissolved Organic Carbon	<20	30																<20	mg/kg	TM60/PM0	
Total Dissolved Solids #	98	56																<35	mg/l	TM20/PM0	
Total Dissolved Solids #	980	560																<350	mg/kg	TM20/PM0	

Please see attached notes for all abbreviations and acronyms

Mass of sample taken (kg)	-	Dry Matter Content Ratio (%) =	87.7					
Mass of dry sample (kg) =	0.09	Leachant Volume (l)	-					
Particle Size <4mm =	>95%	Eluate Volume (l)	0.75					
JEFL Job No	18/3937		Landfill Waste Acceptance Criteria Limits					
Sample No	65							
Client Sample No	TP18-10							
Depth/Other	2.30							
Sample Date	13/03/2018							
Batch No	1							
Solid Waste Analysis			Inert	Stable Non-reactive	Hazardous			
Total Organic Carbon (%)	0.31					3	5	6
Sum of BTEX (mg/kg)	0.551					6	-	-
Sum of 7 PCBs (mg/kg)	<0.035					1	-	-
Mineral Oil (mg/kg)	220					500	-	-
PAH Sum of 6 (mg/kg)	<0.22					-	-	-
PAH Sum of 17 (mg/kg)	<0.64					100	-	-
Eluate Analysis			Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg					
	10:1 concn leached							
	A10		mg/kg					
	mg/kg							
Arsenic	<0.025		0.5	2	25			
Barium	0.45		20	100	300			
Cadmium	<0.005		0.04	1	5			
Chromium	<0.015		0.5	10	70			
Copper	<0.07		2	50	100			
Mercury	<0.0001		0.01	0.2	2			
Molybdenum	0.09		0.5	10	30			
Nickel	<0.02		0.4	10	40			
Lead	<0.05		0.5	10	50			
Antimony	<0.02		0.06	0.7	5			
Selenium	<0.03		0.1	0.5	7			
Zinc	<0.03		4	50	200			
Chloride	<3		800	15000	25000			
Fluoride	<3		10	150	500			
Sulphate as SO4	8.6		1000	20000	50000			
Total Dissolved Solids	980		4000	60000	100000			
Phenol	<0.1		1	-	-			
Dissolved Organic Carbon	<20		500	800	1000			

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Mass of sample taken (kg)	-	Dry Matter Content Ratio (%) =	90.9		
Mass of dry sample (kg) =	0.09	Leachant Volume (l)	-		
Particle Size <4mm =	>95%	Eluate Volume (l)	0.82		
JEFL Job No	18/3937		Landfill Waste Acceptance Criteria Limits		
Sample No	72				
Client Sample No	TP18-11				
Depth/Other	3.50				
Sample Date	13/03/2018				
Batch No	1				
Solid Waste Analysis			Inert	Stable Non-reactive	Hazardous
Total Organic Carbon (%)	0.22				
Sum of BTEX (mg/kg)	4.556		6	-	-
Sum of 7 PCBs (mg/kg)	<0.035		1	-	-
Mineral Oil (mg/kg)	695		500	-	-
PAH Sum of 6 (mg/kg)	<0.22		-	-	-
PAH Sum of 17 (mg/kg)	2.98		100	-	-
Eluate Analysis	10:1 concn leached		Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg		
	A10		mg/kg		
	mg/kg				
Arsenic	<0.025		0.5	2	25
Barium	0.04		20	100	300
Cadmium	<0.005		0.04	1	5
Chromium	<0.015		0.5	10	70
Copper	<0.07		2	50	100
Mercury	<0.0001		0.01	0.2	2
Molybdenum	0.06		0.5	10	30
Nickel	<0.02		0.4	10	40
Lead	<0.05		0.5	10	50
Antimony	<0.02		0.06	0.7	5
Selenium	<0.03		0.1	0.5	7
Zinc	<0.03		4	50	200
Chloride	<3		800	15000	25000
Fluoride	<3		10	150	500
Sulphate as SO4	3.0		1000	20000	50000
Total Dissolved Solids	560		4000	60000	100000
Phenol	<0.1		1	-	-
Dissolved Organic Carbon	30		500	800	1000

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Client Name: AWN Consulting
Reference: 18-10021
Location: Cornelscourt
Contact: Colm Driver

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, lie outside the scope of our UKAS accreditation.

Where the sample is not taken by a Jones Environmental Laboratory consultant, Jones Environmental Laboratory cannot be responsible for inaccurate or unrepresentative sampling.

Signed on behalf of Jones Environmental Laboratory:



Ryan Butterworth
 Asbestos Team Leader

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	Date Of Analysis	Analysis	Result
18/3937	1	TP18-10	2.30	64	26/03/2018	General Description (Bulk Analysis)	soil-stones
					26/03/2018	Asbestos Fibres	NAD
					26/03/2018	Asbestos Fibres (2)	NAD
					26/03/2018	Asbestos ACM	NAD
					26/03/2018	Asbestos ACM (2)	NAD
					26/03/2018	Asbestos Type	NAD
					26/03/2018	Asbestos Type (2)	NAD
					26/03/2018	Asbestos Level Screen	NAD
18/3937	1	TP18-11	3.50	71	26/03/2018	General Description (Bulk Analysis)	soil-stones
					26/03/2018	Asbestos Fibres	NAD
					26/03/2018	Asbestos Fibres (2)	NAD
					26/03/2018	Asbestos ACM	NAD
					26/03/2018	Asbestos ACM (2)	NAD
					26/03/2018	Asbestos Type	NAD
					26/03/2018	Asbestos Type (2)	NAD
					26/03/2018	Asbestos Level Screen	NAD

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

JE Job No.: 18/3937

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. 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.

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

Samples must be received in a condition appropriate to the requested analyses. All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. If this is not the case you will be informed and any test results that may be compromised highlighted on your deviating samples report.

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.

REPORTS FROM THE SOUTH AFRICA LABORATORY

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

Please include all sections of this report if it is reproduced

All solid results are expressed on a dry weight basis unless stated otherwise.

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.
++	Result outside calibration range, results should be considered as indicative only and are not accredited.
*	Analysis subcontracted to a Jones Environmental 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

JE Job No: 18/3937

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.				
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 16 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 16 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 USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	PM16	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	
TM5	Modified USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	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 USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	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
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details	Yes		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

JE Job No: 18/3937

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
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 USEPA 415.1. 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
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.			AR	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM21	As received solid or water samples are extracted in Methanol: Sodium Hydroxide (0.1M NaOH) (60:40) by orbital shaker.	Yes		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 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.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes

JE Job No: 18/3937

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
TM36	Modified US EPA method 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM38	Soluble Ion analysis using the Thermo Aquakem Photometric Automatic Analyser. Modified US EPA methods 325.2, 375.4, 365.2, 353.1, 354.1	PM0	No preparation is required.	Yes		AR	Yes
TM38	Soluble Ion analysis using the Thermo Aquakem Photometric Automatic Analyser. Modified US EPA methods 325.2, 375.4, 365.2, 353.1, 354.1	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
TM50	Acid soluble sulphate (Total Sulphate) analysed by ICP-OES	PM29	Dried and ground solid sample is boiled with dilute hydrochloric acid, the resulting liquor is then analysed.	Yes		AD	Yes
TM60	Modified USEPA 9060. Determination of TOC by calculation from Total Carbon and Inorganic Carbon using a TOC analyser, the carbon in the sample is converted to CO2 and then passed through a non-dispersive infrared gas analyser (NDIR).	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.	PM38	Samples are brominated to reduce all mercury compounds to Mercury (II) which is analysed using method TM061.	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.	PM11	Extraction of as received solid samples using one part solid to 2.5 parts deionised water.	Yes		AR	No
TM74	Analysis of water soluble boron (20:1 extract) by ICP-OES.	PM32	Hot water soluble boron is extracted from dried and ground samples using a 20:1 ratio.	Yes		AD	Yes
TM89	Modified USEPA method OIA-1667. Determination of cyanide by Flow Injection Analyser. Where WAD cyanides are required a Ligand displacement step is carried out before analysis.	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide and Thiocyanate analysis.	Yes		AR	Yes

JE Job No: 18/3937

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
TM106	Determination of Sulphide by Skalar Continuous Flow Analyser	PM119	As received solid samples are extracted with 1M NaOH by orbital shaker for Sulphide and Thiocyanate analysis.			AR	Yes
TM108	Determination of Elemental Sulphur by Reversed Phase High Performance Liquid Chromatography with Ultra Violet spectroscopy.	PM114	End over end extraction of dried and crushed soil samples for organic analysis. The solvent mix varies depending on analysis required			AD	Yes
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			AR	Yes
NONE	No Method Code	PM17	Modified method 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	

Appendix - Methods used for WAC (2003/33/EC)

Leachate tests	
10l/kg; 4mm	I.S. EN 12457-2:2002 Specified particle size; water added to L/S ratio; capped; agitated for 24 ± 0.5 hours; eluate settled and filtered over 0.45 µm membrane filter.
Eluate analysis	
As	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Ba	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Cd	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Cr total	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Cu	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Hg	I.S. EN 13370 rec. EN 1483 (CVAAS)
Mo	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Ni	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Pb	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Sb	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Se	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Zn	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Chloride	I.S. EN 12506 rec. EN ISO 10304-part 1 (liquid chromatography of ions)
Fluoride	I.S. EN 12506 rec. EN ISO 10304-part 1 (liquid chromatography of ions)
Sulphate	I.S. EN 12506 rec. EN ISO 10304-part 1 (liquid chromatography of ions)
Phenol index	I.S. EN 13370 rec. ISO 6439 (4-Aminoantipyrine spectrometric methods after distillation)* (BY HPLC - Jones Env)
DOC	I.S. EN 1484
TDS	I.S. EN 15216
Compositional analysis	
TOC	I.S. EN 13137 Method B: carbonates removed with acid; TOC by combustion.
BTEX	GC-FID
PCB7**	I.S. EN 15308 analysis by GC-ECD.
Mineral oil	I.S. EN 14039 C10 to C40 analysis by GC-FID.
PAH17***	I.S. EN 15527 PAH17 analysis by GC-MS
Metals	I.S. EN 13657 - Aqua regia digestion: EN ISO 11885 (ICP-OES)
Other	
Dry matter	I.S. EN 14346 sample is dried to a constant mass in an oven at 105 ± 3 °C; Method B Water content by direct Karl-Fischer-titration and either volumetric or coulometric detection.
LOI	I.S. EN 15169 Difference in mass after heating in a furnace up to 550 ± 25 °C.
ANC	CEN/TS 15364 Determined by amouns of acid or base needed to cover the pH range
Notes:	
*If not suitable due to LOD, precision, etc., any other suitable method can be used, e.g. AFS, ICP-MS	
**PCB-28, PCB-52, PCB-101, PCB-118, PCB-138, PCB-153 and PCB-180	
***Naphthalene, Acenaphthylene, Acenaphthene, Anthracene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(g,h,i)perylene, Benzo(a)pyrene, Chrysene, Coronene, Dibenzo(a,h)anthracene, Fluorene, Fluoranthene, Indeno(1,2,3-c,d)pyrene, Phenanthrene and Pyrene.	

AWN Consulting Ltd.			Soil Samples during Site Investigation						Samples taken from Previous assessment																
Report:	Solid (Soil samples)	Sample ID	TP18-10	TP18-10	TP18-11	TP18-11	TP18-16	TPA	TPA	TPB	TPB	TPC	TPC	TPD	TPD	TPE	TPE	TPF	TPF	TPG	TPG	TPH	TPH	TPI	
Client:		Depth (m)	2.30	3.40	3.30	3.50	2.60	2.4	2.9	1.2	2.5	2	3	1.7	2.7	1.5	2.5	2.2	3.1	2.1	3.1	1.2	2.4	2.7	
Client ref:	18_10021	Containers	V J T	V J	J T	J T	J T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Location:	Cornelscourt, Co. Dublin	Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	
		Sampled Date	15/03/2018	15/03/2018	15/03/2018	15/03/2018		15/02/2000	15/02/2000	15/02/2000	15/02/2000	15/02/2000	15/02/2000	15/02/2000	15/02/2000	15/02/2000	15/02/2000	15/02/2000	15/02/2000	15/02/2000	15/02/2000	15/02/2000	15/02/2000	15/02/2000	
CAS Number	Test	Units																							
INTERPRETATION	EPH CWG Interpretation	None		Degraded Diesel			Degraded Diesel																		
	TPH CWG																								
	Aliphatics	LOD																							
GTC05C35AL	Total aliphatics C5-35	mg/kg	<19	229	504	719	730	555	NT																
	Aromatics																								
GTEC05EC35AR	Total aromatics C5-35 #	mg/kg	<19	150	815	1164	518	387	NT																
GTC05C35ALAR	Total aliphatics and aromatics(C5-35)	mg/kg	<38	379	NT	NT	1248	942	NT																
1634-04-4	MTBE #	mg/kg	<5	<LOD	<LOD	<LOD	<LOD	<LOD	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
71-43-2	Benzene #	mg/kg	<5	0.009	0.107	<LOD	<LOD	<LOD	2.575	1.621	1.018	0.434	NT				<LOD	<LOD	0.611	NT	0.633	NT	NT		
108-88-3	Toluene #	mg/kg	<5	0.02	0.035	<LOD	<LOD	<LOD	4.307	1.47	2.976	1.342					<LOD	<LOD	1.251	NT	0.786	NT			
100-41-4	Ethylbenzene #	mg/kg	<5	0.035	0.041	<LOD	1073	<LOD	14.878	6.383	9.71	5.391					<LOD	<LOD	3.109	NT	4.654	NT			
P_M_XYLENE	m/p-Xylene #	mg/kg	<5	0.425	0.115	0.097	3.483	38	51.732	20.461	36.362	26.448					0.028	0.028	10.365	NT	16.506	NT			
95-47-6	o-Xylene #	mg/kg	<5	0.062	0.009	<LOD	<LOD	<LOD																	
-	Total Mineral Oil	mg/kg	<1	220	NT	NT	695	NT	393	338	11	635	13	1	8	7	5	74	5	194	379	690	7	42	7
Legend																									
Other Samples collected on site during the 2018 site investigations recorded concentrations <LOD in terms of hydrocarbon parameters.																									
<LOD Results are below the laboratory respective limit of detection (LOD) (mg/kg)																									
NT Sample 'Not Tested' for this parameter																									

AWN Consulting Ltd.			Soil Samples during Site Investigation 2018														Guideline Values	
Report:	Solid (Soil samples)	Sample ID	TP18-02	TP18-04	TP18-06	TP18-08	TP18-09	TP18-10	TP18-10	TP18-11	TP18-11	TP18-13	TP18-16	PH18-01	PH18-04	LQM/CIEH S4ul for HHRA Residential Threshold at 1% SOM (mg/kg)	LQM/CIEH S4ul for HHRA Commercial Threshold at 1% SOM (mg/kg)	
Client:	Containers	Depth (m)	V J	V J	V J	J T	J T	V J T	V J	J T	J T	J T	J T	J	V J T			
Client ref:	Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Location:	Sampled Date	12/03/2018	12/03/2018	12/03/2018	12/03/2018	12/03/2018	12/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018	13/03/2018	09/03/2018			09/03/2018
CAS Number	Test	Units																
INTERPRETATION	EPH CWG Interpretation	None							Degraded diesel					Degraded Diesel			NA	NA
TPH CWG																		
Aliphatics			LOD															
GTC05C06AL	>C5-C6 #	mg/kg	<0.1	-	-	-	-	-	0.4	0.8	0.1	2.2	-	-	-	-	160	3200 (304) sol
GTC06C08AL	>C6-C8 #	mg/kg	<0.1	-	-	-	-	-	2	4.8	0.3	6.8	-	0.1	-	-	530	7800(144)sol
GTC08C10AL	>C8-C10	mg/kg	<0.1	-	-	-	-	-	6.4	7.3	6	26.6	-	3.9	-	-	150	2000(78)sol
GTC10C12AL	>C10-C12 #	mg/kg	<0.2	-	-	-	-	-	34.8	75.2	80.4	100.6	-	56.1	-	-	770	9700(48)sol
GTC12C16AL	>C12-C16 #	mg/kg	<4	-	-	-	-	-	76	178	255	242	-	192	-	-	4400	59000(24)sol
GTC16C21AL	>C16-C21 #	mg/kg	<7	-	-	-	-	-	81	181	276	260	-	219	-	-		
GTC21C35AL	>C21-C35 #	mg/kg	<7	-	-	-	-	-	28	57	101	92	-	84	-	-	65000 (combined)	1600000 (combined)
GTC05C35AL	Total aliphatics C5-35	mg/kg	<19	-	-	-	-	-	229	504	719	730	-	555	-	-	-	-
TM36/PM12	>C6-C10	mg/kg	<0.1	NT	NT	NT	NT	NT	8.4	NT	NT	33.4	NT	NT	NT	NT	-	-
TM5/PM8/PM16	>C10-C25	mg/kg	<10	NT	NT	NT	NT	NT	207	NT	NT	698	NT	NT	NT	NT	-	-
TM5/PM8/PM16	>C25-C35	mg/kg	<10	NT	NT	NT	NT	NT	-	NT	NT	13	NT	NT	NT	NT	-	-
Aromatics																		
GTEC05EC07AR	>C5-EC7 #	mg/kg	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	1400	26000(1220)sol
GTEC07EC08AR	>EC7-EC8 #	mg/kg	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	3900	56000(869)vap
GTEC08EC10AR	>EC8-EC10 #	mg/kg	<0.1	-	-	-	-	-	0.6	0.2	-	4.6	-	-	-	-	270	3500(613)vap
GTEC10EC12AR	>EC10-EC12 #	mg/kg	<0.2	-	-	-	-	-	24.2	53.2	23.2	85.3	-	23.2	-	-	1200	16000(364)sol
GTEC12EC16AR	>EC12-EC16 #	mg/kg	<4	-	-	-	-	-	43	95	150	181	-	134	-	-	2500	36000(169)sol
GTEC16EC21AR	>EC16-EC21 #	mg/kg	<7	-	-	-	-	-	59	121	206	190	-	176	-	-	1900	28000
GTEC21EC35AR	>EC21-EC35 #	mg/kg	<7	-	-	-	-	-	23	42	66	57	-	54	-	-	1900	28000
GTEC05EC35AR	Total aromatics C5-35 #	mg/kg	<19	-	-	-	-	-	150	311	445	518	-	387	-	-	-	-
GTC05C35ALAR	Total aliphatics and aromatics(C5-35)	mg/kg	<38	-	-	-	-	-	379	815	1164	1248	-	942	-	-	-	-
1634-04-4	MTBE #	ug/kg	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
71-43-2	Benzene #	ug/kg	<5	-	-	-	-	-	0.009	0.107	-	-	-	-	-	-	380	27000
108-88-3	Toluene #	ug/kg	<5	-	-	-	-	-	0.02	0.035	-	-	-	-	-	-	3900000	5600000(869)vap
100-41-4	Ethylbenzene #	ug/kg	<5	-	-	-	-	-	0.035	0.041	-	1.073	-	-	-	-	440000	5700000(518)vap
P_M_XYLENE	m/p-Xylene #	ug/kg	<5	-	-	-	-	-	0.425	0.115	0.097	3.483	-	0.038	-	-	450000	m: 6200000(625)vap p: 5900000(576)sol
95-47-6	o-Xylene #	ug/kg	<5	-	-	-	-	-	0.062	0.091	-	-	-	-	-	-	48000	6600000(478)sol
-	Total Mineral Oil	mg/kg	<1	-	-	-	-	-	220	-	-	695	-	-	-	-	-	-

Legend

16.4 Results exceed LQM/CIEH S4ul for HHRA Residential Threshold at 1% SOM (mg/kg)

16.4 Results exceed LQM/CIEH S4ul for HHRA Commercial & Residential Threshold at 1% SOM (mg/kg)

- Guideline threshold value not available

Result is below the laboratory respective limit of detection (LOD)

NT Sample not tested for that paramter

Notes

HHRA 2015 - LQM/CIEH Suitable 4 Use Levels based on 'Commercial' and/or 'residential' land use using 1% SOM

Sol : sol S4UL presented exceed the solubility saturation limit, which is presented in brackets

Vap: vap S4UL presented exceed the vapour stauration limit which is prensted in brackets

APPENDIX C

Model Input Files

Choose risk assessment type <input checked="" type="radio"/> Human health <input type="radio"/> Ecological (food web or eco criteria)	How will exposure point concentrations be estimated? <input type="radio"/> Specify concentrations <input checked="" type="radio"/> Use model to estimate concentrations Where is the exposure point (the receptor) located? <input type="radio"/> Source area <input checked="" type="radio"/> Downgradient	Choose media where contamination is located <input checked="" type="radio"/> Unsaturated zone soil <input type="radio"/> Groundwater <input type="radio"/> Saturated soil/ NAPL
Define Site Conceptual Model		
Off-Site Exposure Pathways <input type="checkbox"/> Leaching to groundwater and transport downgradient to a well <input checked="" type="checkbox"/> Volatile emissions to outdoor air <input checked="" type="checkbox"/> Volatile emissions to indoor air Choose volatilization model <input checked="" type="radio"/> Johnson and Ettinger mod <input type="radio"/> Dominant layer model <input type="radio"/> Oxygen-limited model <input type="checkbox"/> Downgradient groundwater impacting surface water	<p>The diagram illustrates a site conceptual model. On the left, a red oval represents a source area in the soil. Red arrows point downwards from this area into the groundwater table, which is shown as a blue layer. On the right, a house and a well are shown. Red arrows point upwards from the soil into the outdoor air, and then into the indoor air of the house. The well is shown tapping into the groundwater. The diagram is labeled 'Indoor air' and 'Outdoor air' at the top.</p>	

Summary of Input Values Used in Fate and Transport Model

Model Description:

Source media: Unsaturated zone soil
(depleting source)

Depleting source

Offsite exposure models:

Leaching to groundwater and groundwater transport
to downgradient well

Offsite outdoor air emissions from groundwater

Vapour intrusion to indoor air from groundwater

Indoor air model: Johnson and Ettinger model

Unsaturated Zone Soil Source		
Depth to top of contamination	m	1.0E-01
Thickness of contamination	m	1.0E+00
Length of source	m	3.0E+01
Width of source	m	3.2E+01
Depth to groundwater (from bottom of source)	m	2.0E+00

Unsaturated Zone Properties		
Total Porosity in vadose zone	cm ³ /cm ³	3.9E-01
Water content	cm ³ /cm ³	1.0E-01
Depth to groundwater (from ground surface)	m	3.1E+00

Chemical Degradation Rate in Unsaturated Zone		
Ethylbenzene	1/d	3.0E-03
TPH Aliphatic C5-6	1/d	0.0E+00
TPH Aliphatic C6-8	1/d	0.0E+00
TPH Aliphatic C8-10	1/d	0.0E+00
TPH Aliphatic C10-12	1/d	0.0E+00
TPH Aliphatic C12-16	1/d	0.0E+00
TPH Aliphatic C16-35	1/d	0.0E+00
TPH Aromatic C7-8	1/d	0.0E+00
TPH Aromatic C8-10	1/d	0.0E+00
TPH Aromatic C10-12	1/d	0.0E+00
TPH Aromatic C12-16	1/d	0.0E+00
TPH Aromatic C16-21	1/d	0.0E+00
TPH Aromatic C21-35	1/d	0.0E+00
Xylenes (m-)	1/d	1.3E-02

Lens not used

Outdoor Box Model Parameters		
Height of box (breathing zone)	m	2.0E+00
Length of box	m	1.0E+01
Width of box	m	1.0E+01
Wind speed	m/s	2.3E+00

Aquifer Properties		
Effective porosity	cm ³ /cm ³	2.0E-01
Fraction organic carbon	g oc/g soil	1.0E-02
Hydraulic conductivity	m/d	1.1E-01
Soil bulk density	g/cm ³	1.6E+00
Hydraulic gradient	m/m	8.0E-03

Receptor Well Location		
------------------------	--	--

Distance downgradient	m	1.0E+00
Distance cross-gradient	m	0.0E+00
Depth to top of well screen	m	0.0E+00
Depth to bottom of well screen	m	2.0E+00
Number of vertical points used to calculate conc.	-	2.0E+00
Longitudinal dispersivity code calculated. See output file.		
Transverse dispersivity code calculated. See output file.		
Vertical dispersivity code calculated. See output file.		

Unsaturated Zone Properties Beneath Building		
Total porosity	cm ³ /cm ³	3.9E-01
Water content	cm ³ /cm ³	2.0E-01
Air content	cm ³ /cm ³	1.9E-01
Distance from groundwater to building	m	3.0E+00
Bioattenuation factor	-	1.0E+00

Capillary Fringe		
Thickness of the capillary fringe	cm	3.0E+01
Air content	-	3.0E-02
Water content	-	3.6E-01

Building Parameters		
Diffusion only case		
Foundation thickness	cm	1.5E+01
Fraction of cracks	-	2.0E-03
Porosity in cracks	cm ³ /cm ³	2.5E-01
Water content in cracks	cm ³ /cm ³	0.0E+00
Enclosed space floor length	m	1.0E+01
Enclosed space floor width	m	1.0E+01
Enclosed space height	m	3.0E+00
Volume of building	m ³	3.0E+02
Number of air changes per hour	1/hr	5.0E-01

Source Concentration for Unsaturated Zone Model (mg/kg)		
Ethylbenzene	mg/kg	1.1E+00
TPH Aliphatic C5-6	mg/kg	2.2E+00
TPH Aliphatic C6-8	mg/kg	6.8E+00
TPH Aliphatic C8-10	mg/kg	2.7E+01
TPH Aliphatic C10-12	mg/kg	1.0E+02
TPH Aliphatic C12-16	mg/kg	2.6E+02
TPH Aliphatic C16-35	mg/kg	3.8E+02
TPH Aromatic C7-8	mg/kg	1.0E-01
TPH Aromatic C8-10	mg/kg	4.6E+00
TPH Aromatic C10-12	mg/kg	8.5E+01
TPH Aromatic C12-16	mg/kg	1.8E+02
TPH Aromatic C16-21	mg/kg	2.1E+02
TPH Aromatic C21-35	mg/kg	6.6E+01
Xylenes (m-)	mg/kg	3.5E+00

Summary of Input Data for Risk Calculation

Description:

Date:

06-19-2018
22:29:09

Receptors:

Adult Resident - Mean

Routes:

Inhalation of Indoor Air

Inhalation of Outdoor Air

Chemicals:

Ethylbenzene

TPH Aliphatic C5-6

TPH Aliphatic C6-8

TPH Aliphatic C8-10

TPH Aliphatic C10-12

TPH Aliphatic C12-16

TPH Aliphatic C16-35

TPH Aromatic C7-8

TPH Aromatic C8-10

TPH Aromatic C10-12

TPH Aromatic C12-16

TPH Aromatic C16-21

TPH Aromatic C21-35

Xylenes (m-)

Exposure Parameters

Exposure Pathway	Units	Adult Resident - Mean
Body weight	kg	71.8
Averaging time for carcinogens	yr	70
Exposure duration	yr	9

Inhalation of Indoor Air	Units	Adult Resident - Mean
Exposure frequency for indoor air	events/yr	350
Time indoors	hr/d	18.3
Inhalation rate indoors	m3/hr	0.625

Inhalation of Outdoor Air	Units	Adult Resident - Mean
Exposure frequency for outdoor air	events/yr	40
Time outdoors	hr/d	1.1
Inhalation rate outdoors	m3/hr	1.6

APPENDIX D

Model Output

SUMMARY OF CARCINOGENIC RISK

Receptor 1:

Adult Resident - Mean

Chemical	Inhalation of Indoor Air	Inhalation of Outdoor Air	TOTAL
Ethylbenzene	2.0E-11	1.5E-16	2.0E-11
TPH Aliphatic C5-6	ND	ND	ND
TPH Aliphatic C6-8	ND	ND	ND
TPH Aliphatic C8-10	ND	ND	ND
TPH Aliphatic C10-12	ND	ND	ND
TPH Aliphatic C12-16	ND	ND	ND
TPH Aliphatic C16-35	ND	ND	ND
TPH Aromatic C7-8	ND	ND	ND
TPH Aromatic C8-10	ND	ND	ND
TPH Aromatic C10-12	ND	ND	ND
TPH Aromatic C12-16	ND	ND	ND
TPH Aromatic C16-21	ND	ND	ND
TPH Aromatic C21-35	ND	ND	ND
Xylenes (m-)	ND	ND	ND
TOTAL	2.0E-11	1.5E-16	2.0E-11

SUMMARY OF HAZARD QUOTIENTS

Receptor 1:

Adult Resident - Mean

Chemical	Inhalation of Indoor Air	Inhalation of Outdoor Air	TOTAL
Ethylbenzene	6.1E-08	4.7E-13	6.1E-08
TPH Aliphatic C5-6	0.0E+00	0.0E+00	ND
TPH Aliphatic C6-8	0.0E+00	0.0E+00	ND
TPH Aliphatic C8-10	0.0E+00	0.0E+00	ND
TPH Aliphatic C10-12	0.0E+00	0.0E+00	ND
TPH Aliphatic C12-16	0.0E+00	0.0E+00	ND
TPH Aliphatic C16-35	ND	ND	ND
TPH Aromatic C7-8	1.6E-07	1.3E-12	1.6E-07
TPH Aromatic C8-10	0.0E+00	0.0E+00	ND
TPH Aromatic C10-12	0.0E+00	0.0E+00	ND
TPH Aromatic C12-16	0.0E+00	0.0E+00	ND
TPH Aromatic C16-21	ND	ND	ND
TPH Aromatic C21-35	ND	ND	ND
Xylenes (m-)	2.1E-08	1.7E-13	2.1E-08
TOTAL	2.5E-07	1.9E-12	2.5E-07

APPENDIX 5 – Trial Pit Logs



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Site
Cornelscourt

Trial Pit Number
IT01

Machine : JCB	Dimensions	Ground Level (mOD) 53.25	Client	Job Number 8354-01-19
Method :	Location 722326.2 E 725877.3 N	Dates 21/01/2019	Engineer DBFL	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
				53.05	(0.20)	Brown slightly sandy slightly gravelly TOPSOIL.		
				52.75	(0.30)	MADE GROUND: Brown slightly sandy slightly gravelly CLAY.		
				51.35	(1.40)	Firm brown slightly sandy slightly gravelly CLAY.		
					1.90	Complete at 1.90m		

Plan .	Remarks No Groundwater encountered. Trial pit stable. Infiltration test completed in trial pit. Trial pit backfilled on completion of infiltration test.		
	Scale (approx) 1:25	Logged By Tmcl	Figure No. 8354-01-19.IT01



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Site
Cornelscourt

Trial Pit Number
IT02

Machine : JCB Method :	Dimensions	Ground Level (mOD) 48.87	Client	Job Number 8354-01-19
	Location 722441.6 E 725841.6 N	Dates 21/01/2019	Engineer DBFL	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
				48.57	(0.30) 0.30	Brown slightly sandy slightly gravelly TOPSOIL.		
					(1.10)	Firm to stiff light brown slightly sandy slightly gravelly CLAY.		
				47.47	1.40 (0.50)	Stiff grey mottled brown slightly sandy gravelly CLAY with rare sub-angular cobbles.		
				46.97	1.90	Complete at 1.90m		

Plan .	Remarks No Groundwater encountered. Trial pit stable. Infiltration test completed in trial pit. Trial pit backfilled on completion of infiltration test.		
	<table border="1"> <tr> <td>Scale (approx) 1:25</td> <td>Logged By Tmcl</td> <td>Figure No. 8354-01-19.IT02</td> </tr> </table>	Scale (approx) 1:25	Logged By Tmcl
Scale (approx) 1:25	Logged By Tmcl	Figure No. 8354-01-19.IT02	



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Site
Cornelscourt

Trial Pit Number
IT03

Machine : JCB	Dimensions	Ground Level (mOD)	Client	Job Number 8354-01-19
Method :	Location	Dates 21/01/2019	Engineer DBFL	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.25)	Brown slightly sandy slightly gravelly TOPSOIL.		
					0.25 (0.25)	Firm to stiff light brown slightly sandy slightly gravelly CLAY with rare sub-angular cobbles.		
					0.50 (0.80)	Firm to stiff brown slightly sandy gravelly CLAY with rare sub-angular cobbles.		
					1.30 (0.60)	Firm to stiff grey mottled brown slightly sandy gravelly CLAY with rare sub-angular cobbles.		
					1.90	Complete at 1.90m		

Plan .	Remarks No Groundwater encountered. Trial pit stable. Infiltration test completed in trial pit. Trial pit backfilled on completion of infiltration test.		
	Scale (approx) 1:25	Logged By Tmcl	Figure No. 8354-01-19.IT03



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Site
Cornelscourt

Trial Pit Number
TP01

Machine : JCB 3CX		Dimensions		Ground Level (mOD) 50.29		Client		Job Number 8354-01-19	
Method : Trial Pit		Location (Handheld GPS) 722370.1 E 725920.8 N		Dates 21/01/2019		Engineer DBFL		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
				50.09	0.20	Brown slightly sandy slightly gravelly TOPSOIL with fragments of concrete and plastic.		
				49.94	0.15	MADE GROUND: Blueish grey slightly sandy CLAY with angular to subangular, fine to coarse gravel.		
					0.35	Firm, brown, slightly sandy slightly gravelly CLAY with rare subangular to subrounded cobbles of granite.		
					(1.35)			
				48.59	1.70	Firm, brown, slightly sandy, slightly gravelly CLAY with occasional subangular to subrounded weathered cobbles of granite and limestone. Rare boulders of granite.		
					(1.10)			
				47.49	2.80	Firm, brown, very sandy, angular to subangular, fine to coarse gravel with rare cobbles of granite and possible weathered rock.		
				47.29	3.00	Trial pit terminated due to sidewall collapse. Complete at 3.00m		

Plan .	Remarks Groundwater encountered at 1.40m (Slight seepage), 2.10m (medium seepage) and 2.80m (medium seepage). Trial pit sidewall collapsed between 0.70m and 2.80m BGL. Trial pit terminated at 3.0m BGL due to sidewall collapse.		
	Scale (approx) 1:25	Logged By Tmcl	Figure No. 8354-01-19.TP01



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Site
Cornelscourt
Trial Pit Number
TP02

Machine : JCB Method :	Dimensions	Ground Level (mOD) 49.26	Client	Job Number 8354-01-19
	Location 722407.2 E 725894.8 N	Dates 21/01/2019	Engineer DBFL	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
						MADE GROUND: Brown slightly sandy slightly gravelly CLAY with rare sub-angular cobbles and rare fragments of plastic, ceramic and metal.		
				48.16	1.10 (0.60)	Soft to firm light brown slightly sandy gravelly CLAY with occasional sub-rounded cobbles.		
				47.56	1.70 (1.90)	Firm to stiff grey mottled brown slightly sandy gravelly CLAY with occasional sub-rounded cobbles of limestone.		
				45.66 45.56	3.60 (0.10) 3.70	Grey sandy very clayey sub-rounded fine to coarse Gravel with rare sub-rounded cobbles. Trial pit terminated due to sidewall collapse. Complete at 3.70m		

Plan									Remarks No Groundwater encountered. Trial pit stable. Infiltration test completed in trial pit. Trial pit backfilled on completion of infiltration test.
									Scale (approx) 1:25
									Logged By Tmcl
									Figure No. 8354-01-19.TP02



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Site
Cornelscourt

Trial Pit Number
TP03

Machine : JCB	Dimensions	Ground Level (mOD) 48.52	Client	Job Number 8354-01-19
Method :	Location 722430.2 E 725876.6 N	Dates 22/01/2019	Engineer DBFL	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
				48.22	(0.30) 0.30	Brown slightly sandy slightly gravelly TOPSOIL with fragments of plastic and grass rootlets.		
				47.62	(0.60) 0.90	Firm light brown slightly sandy slightly gravelly CLAY.		
				45.52	(2.10) 3.00	Firm to stiff greyish brown slightly sandy gravelly CLAY with occasional sub-angular cobbles.		
						Terminated due to sidewalls collapsing. Complete at 3.00m		

<p>Plan</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p>	<p>Remarks</p> <p>Groundwater encountered at 2.80m BGL (Medium Seepage). Trial pit sidewall collapsed between 0.90m and 2.30m. Trial pit backfilled on completion.</p>			
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Scale (approx) 1:25</td> <td style="width: 30%;">Logged By Tmcl</td> <td style="width: 40%;">Figure No. 8354-01-19.TP03</td> </tr> </table>	Scale (approx) 1:25	Logged By Tmcl	Figure No. 8354-01-19.TP03
Scale (approx) 1:25	Logged By Tmcl	Figure No. 8354-01-19.TP03		



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Site
Cornelscourt
Trial Pit Number
TP04

Machine : JCB Method :	Dimensions	Ground Level (mOD) 47.91	Client	Job Number 8354-01-19
	Location 722455.2 E 725856.7 N	Dates 22/01/2019	Engineer DBFL	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
				47.61	0.30 (0.30)	Brown slightly sandy slightly gravelly TOPSOIL with grass rootlets.		
				47.31	0.60 (0.30)	Firm light brown slightly sandy slightly gravelly CLAY.		
				45.81	2.10 (1.50)	Firm to stiff grey mottled brown slightly sandy gravelly CLAY with rare sub-angular cobbles and rare boulders.		
				44.41	3.50 (1.40)	Stiff light orange/brown slightly sandy gravelly CLAY with rare sub-rounded cobbles.		
					3.50	Obstruction: Presumed Rock. Complete at 3.50m		

Plan	Remarks		
	No Groundwater encountered. Trial pit stable. Trial pit backfilled on completion.		
	Scale (approx) 1:25	Logged By Tmcl	Figure No. 8354-01-19.TP04



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Site
Cornelscourt

Trial Pit Number
TP05

Machine : JCB	Dimensions	Ground Level (mOD) 48.19	Client	Job Number 8354-01-19
Method :	Location 722462.5 E 725841.8 N	Dates 21/01/2019	Engineer DBFL	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
						MADE GROUND: Brown slightly sandy slightly gravelly Clay with rare fragments of plastic and metal.		
				47.59	0.60 (0.20)	Soft to firm brown slightly sandy slightly gravelly CLAY with rare sub-angular to sub-rounded cobbles.		
				47.39	0.80	Trial pit terminated. Complete at 2.80m		

Plan	Remarks
.	No Groundwater encountered.
.	Trial pit stable.
.	Trial pit completed adjacent to perimeter wall to inspect the walls foundations.
.	Trial pit backfilled on completion.
.	
.	
	Scale (approx) 1:25
	Logged By TMcl
	Figure No. 8354-01-19.TP05



Machine : JCB Method :	Dimensions	Ground Level (mOD) 51.66	Client	Job Number 8354-01-19
	Location 722348.9 E 725897.7 N	Dates 21/01/2019	Engineer DBFL	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20)	Topsoil		
51.46				51.36	0.20 (0.10) 0.30	MADE GROUND: Blueish grey slightly sandy CLAY with angular to subangular fine to coarse gravel.		
					(0.80)	Firm brown slightly sandy slightly gravelly CLAY with a piece of concrete slab.		
				50.56	1.10	Soft brown slightly sandy slightly gravelly CLAY with rare subangular cobbles of limestone and granite.		
				49.16	2.50 (0.40)	Stiff dark brown/grey slightly sandy gravelly CLAY with rare subangular cobbles.		
				48.76	2.90	Trial pit terminated. Complete at 2.90m		

Plan .	Remarks Groundwater encountered at 0.70m (Slight seepage). Trial pit collapsed from 1.20m to 2.40m BGL. Trial pit terminated due to sidewall collapse.		
	<table border="1"> <tr> <td>Scale (approx) 1:25</td> <td>Logged By TMcl</td> <td>Figure No. 8354-01-19.TP06</td> </tr> </table>	Scale (approx) 1:25	Logged By TMcl
Scale (approx) 1:25	Logged By TMcl	Figure No. 8354-01-19.TP06	



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Site
Cornelscourt

Trial Pit Number
TP07

Machine : JCB	Dimensions	Ground Level (mOD) 52.62	Client	Job Number 8354-01-19
Method :	Location 722336.1 E 725871.9 N	Dates 21/01/2019	Engineer DBFL	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
				52.42	(0.20) 0.20	Brown slightly sandy slightly gravelly TOPSOIL with grass rootlets.		
				51.87	(0.55) 0.75	Soft to firm brown slightly sandy slightly gravelly CLAY with rare sub-angular cobbles and gravelly lenses.		
				51.52	(0.35) 1.10	Firm greyish brown slightly sandy gravelly CLAY with rare sub-rounded cobbles.		
				50.62	(0.90) 2.00	Firm to stiff greyish brown slightly sandy gravelly CLAY with rare sub-rounded cobbles.		
			Medium Seepage(1) at 2.40m.	49.42	(1.20) 3.20	Stiff greyish brown slightly sandy gravelly CLAY with rare sub-rounded cobbles.		▽ ₁
				49.22	(0.20) 3.40	Stiff light brown slightly sandy gravelly CLAY with occasional sub-angular cobbles of granite.		
						Obstruction: Boulder or Rock(Granite).		
						Complete at 3.40m		

<p>Plan</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p>	<p>Remarks</p> <p>Groundwater encountered at 2.40m BGL - Medium Seepage. Trial pit sidewall collapsed from 1.10m BGL to 2.60m. Trial pit backfilled on completion.</p>			
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Scale (approx) 1:25</td> <td style="width: 33%;">Logged By TMcl</td> <td style="width: 33%;">Figure No. 8354-01-19.TP07</td> </tr> </table>	Scale (approx) 1:25	Logged By TMcl	Figure No. 8354-01-19.TP07
Scale (approx) 1:25	Logged By TMcl	Figure No. 8354-01-19.TP07		



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Site
Cornelscourt
Trial Pit Number
TP07A

Machine : JCB Method :	Dimensions	Ground Level (mOD) 51.27	Client	Job Number 8354-01-19
	Location 722376.9 E 725863.9 N	Dates 21/01/2019	Engineer DBFL	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
						MADE GROUND: Brown slightly sandy slightly gravelly Clay with rare fragments of plastic and metal.		
				50.67	0.60	Firm light brown slightly sandy slightly gravelly CLAY with rare sub-angular cobbles.		
				50.02	1.25 (0.25)	Soft to firm greyish brown slightly sandy slightly gravelly CLAY with rare sub-angular to sub-rounded cobbles.		
				49.77	1.50 (0.70)	Firm to stiff grey mottled brown slightly sandy gravelly CLAY with rare sub-rounded cobbles.		
				49.07	2.20 (0.60)	Stiff grey mottled brown slightly sandy gravelly CLAY with occasional boulders.		
				48.47	2.80	Obstruction: Boulder or rock. Complete at 3.30m		

Plan	Remarks		
	Trial pit stable. No Groundwater encountered. Trial pit backfilled on completion.		
	Scale (approx) 1:25	Logged By Tmcl	Figure No. 8354-01-19.TP-14



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Site
Cornelscourt

Trial Pit Number
TP08

Machine : JCB	Dimensions	Ground Level (mOD) 49.97	Client	Job Number 8354-01-19
Method :	Location 722409.6 E 725851 N	Dates 22/01/2019	Engineer DBFL	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.40)	Brown slightly sandy slightly gravelly TOPSOIL with grass rootlets.		
				49.57	0.40 (0.40)	Firm light brown slightly sandy slightly gravelly CLAY.		
				49.17	0.80 (2.10)	Firm to stiff greyish brown slightly sandy slightly gravelly CLAY with rare sub-angular cobbles and sandy gravel lenses.		
				47.07	2.90	Trial pit terminated due to sidewall collapse. Complete at 2.90m		

<p>Plan</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p>	<p>Remarks</p> <p>Groundwater encountered at 2.00m (slight seepage) and 2.30m BGL (fast seepage). Trial pit sidewalls collapsed. Trial pit backfilled on completion.</p>			
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Scale (approx) 1:25</td> <td style="width: 33%;">Logged By Tmcl</td> <td style="width: 33%;">Figure No. 8354-01-19.TP08</td> </tr> </table>	Scale (approx) 1:25	Logged By Tmcl	Figure No. 8354-01-19.TP08
Scale (approx) 1:25	Logged By Tmcl	Figure No. 8354-01-19.TP08		



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Site
Cornelscourt

Trial Pit Number
TP09

Machine : JCB	Dimensions	Ground Level (mOD) 49.07	Client	Job Number 8354-01-19
Method :	Location 722441.3 E 725824.6 N	Dates 22/01/2019	Engineer DBFL	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
						MADE GROUND: Brown slightly sandy slightly gravelly CLAY with occasional fragments of concrete and plastic.		
				48.67	0.40 (0.40)	Soft to firm light brown slightly sandy slightly gravelly CLAY.		
				48.27	0.80 (0.70)	Firm greyish brown slightly sandy gravelly CLAY with rare sub-angular cobbles.		
				47.57	1.50 (0.50)	Firm to stiff greyish brown slightly sandy gravelly CLAY with rare sub-rounded boulders of limestone.		
				47.07	2.00 (1.50)	Stiff greyish brown slightly sandy gravelly CLAY with rare sub-angular cobbles.		
				45.57	3.50	Obstruction: Presumed Rock. Complete at 3.50m		

Plan	Remarks
	Groundwater encountered at 2.60m BGL. Trial pit sidewalls collapsed between 1.0m and 1.80m BGL. Trial pit backfilled on completion.
	Scale (approx) 1:25
	Logged By Tmcl
	Figure No. 8354-01-19.TP09



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Site
Cornelscourt

Trial Pit Number
TP11

Machine : JCB	Dimensions	Ground Level (mOD) 52.02	Client	Job Number 8354-01-19
Method :	Location 722363.1 E 725840.4 N	Dates 21/01/2019	Engineer DBFL	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
						MADE GROUND: Brown slightly sandy slightly gravelly Clay with frequent fragments of concrete, glass, red brick, cloth and plastic.		
				51.22	0.80 (0.20)	Soft light brown slightly sandy slightly gravelly CLAY with rare sub-angular to sub-rounded cobbles.		
				51.02	1.00 (1.00)	Firm grey slightly sandy slightly gravelly CLAY with rare sub-angular cobbles and a strong hydrocarbon odour.		
				50.02	2.00 (1.00)	Firm to stiff grey slightly sandy slightly gravelly CLAY with rare sub-angular cobbles and a hydrocarbon odour.		
				49.02	3.00	Obstruction: Boulders or rock. Complete at 3.00m		

<p>Plan</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p>	<p>Remarks</p> <p>Trial pit stable. No Groundwater encountered. Trial pit sidewall collapsed between 0.80m and 2.25m BGL. Trial pit backfilled on completion.</p>			
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Scale (approx) 1:25</td> <td style="width: 30%;">Logged By Tmcl</td> <td style="width: 40%;">Figure No. 8354-01-19.TP11</td> </tr> </table>	Scale (approx) 1:25	Logged By Tmcl	Figure No. 8354-01-19.TP11
Scale (approx) 1:25	Logged By Tmcl	Figure No. 8354-01-19.TP11		



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Site
Cornelscourt

Trial Pit Number
TP12

Machine : JCB	Dimensions	Ground Level (mOD) 51.55	Client	Job Number 8354-01-19
Method :	Location 722383.1 E 725821.6 N	Dates 22/01/2019	Engineer DBFL	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
				51.35	(0.20)	Brown slightly sandy slightly gravelly TOPSOIL with grass rootlets.		
				51.05	(0.30)	Firm light brown slightly sandy slightly gravelly CLAY.		
				50.85	(0.20)	Firm grey mottled brown slightly sandy gravelly CLAY with rare sub-angular cobbles.		
				50.85	(0.70)	Firm to stiff grey mottled brown slightly sandy gravelly CLAY with rare sub-angular cobbles.		
				48.65	(2.20)	Obstruction: Granite Boulder. Complete at 2.90m		

Plan	Remarks
	Groundwater encountered at 2.50m (Medium seepage). Trial pit sidewalls collapsed from 0.90m to 2.60m Trial pit backfilled on completion.
	Scale (approx) 1:25
	Logged By Tmcl
	Figure No. 8354-01-19.TP12



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Site
Cornelscourt

Trial Pit Number
TP13

Machine : JCB	Dimensions	Ground Level (mOD) 50.79	Client	Job Number 8354-01-19
Method :	Location 722415.9 E 725798.4 N	Dates 22/01/2019	Engineer DBFL	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
						MADE GROUND: Brown slightly sandy slightly gravelly CLAY with rare fragments of metal, plastic, concrete and grass rootlets.		
				50.39	0.40	Firm to stiff light brown slightly sandy slightly gravelly CLAY.		
				49.89	0.90	Firm to stiff greyish brown slightly sandy gravelly CLAY with rare sub-angular to sub-rounded cobbles.		
				48.79	2.00	Stiff grey mottled brown slightly sandy gravelly CLAY with rare sub-angular cobbles.		
				47.59	3.20	Complete at 3.20m		

Plan	Remarks		
	No Groundwater encountered. Trial pit stable. Trial pit backfilled on completion.		
	Scale (approx) 1:25	Logged By Tmcl	Figure No. 8354-01-19.TP13



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Site
Cornelscourt

Trial Pit Number
TP16

Machine : JCB	Dimensions	Ground Level (mOD) 52.54	Client	Job Number 8354-01-19
Method :	Location 722368.3 E 725797.8 N	Dates 22/01/2019	Engineer DBFL	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
				52.29	0.25	Brown slightly sandy slightly gravelly TOPSOIL with grass rootlets.		
					(0.55)	Soft to firm light brown slightly sandy slightly gravelly CLAY.		
				51.74	0.80	Firm greyish brown slightly sandy gravelly CLAY with rare sub-angular cobbles.		
				51.24	1.30	Firm to stiff greyish brown slightly sandy gravelly CLAY with rare sub-angular cobbles and sandy gravel lenses.		
					(1.40)			
				49.84	2.70	Obstruction: Presumed Rock(granite). Complete at 2.70m		

Plan .	Remarks Groundwater encountered at 2.60m BGL (Medium seepage). Trial pit stable. Trial pit backfilled on completion.		
	<table border="1"> <tr> <td>Scale (approx) 1:25</td> <td>Logged By Tmcl</td> <td>Figure No. 8354-01-19.TP16</td> </tr> </table>	Scale (approx) 1:25	Logged By Tmcl
Scale (approx) 1:25	Logged By Tmcl	Figure No. 8354-01-19.TP16	



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Site
Cornelscourt

Trial Pit Number
TP17

Machine : JCB	Dimensions	Ground Level (mOD) 51.60	Client	Job Number 8354-01-19
Method :	Location 722400.4 E 725768.9 N	Dates 22/01/2019	Engineer DBFL	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
				51.35	0.25	Brown slightly sandy slightly gravelly TOPSOIL with grass rootlets.		
					(0.65)	Firm light brown slightly sandy slightly gravelly CLAY.		
				50.70	0.90	Firm to stiff greyish brown slightly sandy gravelly CLAY with rare sub-rounded cobbles limestone.		
					(1.90)			
				48.80	2.80	Light yellowish grey very sandy slightly clayey sub-angular to sub-rounded fine to coarse GRAVEL of granite(Weathered Rock).		
				48.40	3.20	Obstruction: Rock (Granite). Complete at 3.20m		

Plan .	Remarks Groundwater encountered at 3.10m BGL (Medium seepage). Trial pit sidewalls spalling. Trial pit backfilled on completion.		
	<table border="1"> <tr> <td>Scale (approx) 1:25</td> <td>Logged By Tmcl</td> <td>Figure No. 8354-01-19.TP16</td> </tr> </table>	Scale (approx) 1:25	Logged By Tmcl
Scale (approx) 1:25	Logged By Tmcl	Figure No. 8354-01-19.TP16	



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Site
Cornelscourt

Trial Pit Number
TP20

Machine : JCB	Dimensions	Ground Level (mOD) 50.27	Client	Job Number 8354-01-19
Method :	Location 722391.4 E 725878.4 N	Dates 21/01/2019	Engineer DBFL	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.50)	MADE GROUND: Brown slightly sandy slightly gravelly Clay with rare fragments of plastic, wire, cloth and glass.		
				49.77	0.50 (0.20)	Firm light brown slightly sandy slightly gravelly CLAY.		
				49.57	0.70 (0.80)	Stiff grey mottled brown slightly sandy gravelly CLAY with rare sub-angular cobbles.		
				48.77	1.50 (1.00)	Firm greyish brown slightly sandy gravelly CLAY with rare sub-angular cobbles.		
				47.77	2.50 (0.50)	Stiff to very stiff black slightly sandy gravelly CLAY with rare cobbles and boulders.		
				47.27	3.00	Obstruction: Boulder or rock. Complete at 3.00m		

Plan

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Remarks

Groundwater encountered at 2.0m BGL (Medium seepage).
Trial pit sidewalls spalling.
Trial pit backfilled on completion.

Scale (approx) 1:25	Logged By Tmcl	Figure No. 8354-01-19.TP20
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Site
Cornelscourt

Trial Pit Number
TP21

Machine : JCB	Dimensions	Ground Level (mOD) 53.18	Client	Job Number 8354-01-19
Method :	Location 722349.6 E 725808.9 N	Dates 22/01/2019	Engineer DBFL	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
				52.93	(0.25)	Brown slightly sandy slightly gravelly TOPSOIL with grass rootlets.		
				52.58	(0.35)	Firm light brown slightly sandy slightly gravelly CLAY.		
				52.23	(0.35)	Firm greyish brown slightly sandy gravelly CLAY with rare sub-angular cobbles and lenses of granite.		
				51.98	(0.25)	Grey very sand slightly clayey subrounded to rounded fine to coarse GRAVEL with rare sub-rounded cobbles.		
				50.18	(1.80)	Firm to stiff grey mottled brown slightly sandy gravelly CLAY with rare sub-angular cobbles.		
				50.18	3.00	Obstruction: Rock (Granite). Complete at 3.00m		

Plan	Remarks		
	No Groundwater encountered. Trial pit stable. Trial pit backfilled on completion. Strong hydrocarbon odour upon reaching rock.		
	Scale (approx)	Logged By	Figure No.
	1:25	Tmcl	8354-01-19.TP21

APPENDIX 6 – Window Sample Logs



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Site
Cornelscourt
Number
WS-01

Excavation Method Drive-in Windowless Sampler	Dimensions		Ground Level (mOD)	Client DBFL	Job Number 8354-01-19
	Location 722343.8 E 725846.6 N		Dates 21/01/2019	Engineer	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-1.00	EN				(1.00)	MADE GROUND: Firm, light brown, sandy, slightly gravelly CLAY with occasional granite cobbles. Gravel is medium to coarse and angular to sub-angular. Sand is fine to coarse. Occasional fragments of red brick, coal and wood. Occasional glass and plastic.		
1.00-2.00	EN				1.00 (0.40) 1.40 (0.60)	MADE GROUND: Firm, light brown, sandy, slightly gravelly CLAY. Gravel is fine to coarse and angular to sub-angular. Fine to coarse sand. Occasional fragments of red brick and coal. Rootlets. Firm, light brown, sandy, slightly gravelly CLAY with occasional cobbles. Sand is fine to coarse. Gravel is fine to coarse and angular to sub-angular. Some sub-rounded to rounded mudstones.	 	
2.00-3.00	EN				2.00 (0.80) 2.80	Firm, light brown, sandy, slightly gravelly, CLAY with occasional cobbles of boulder clay. Gravel is fine to coarse and angular to sub-angular. Complete at 2.80m		

Remarks Refusal at 2.80m.	Scale (approx)	Logged By
	1:25	PM
	Figure No. 8354-01-19.WS-01	



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Site
Cornelscourt
Number
WS-02

Excavation Method Drive-in Windowless Sampler	Dimensions		Ground Level (mOD)	Client DBFL	Job Number 8354-01-19
	Location 722357.4 E 725828.9 N		Dates 22/01/2019	Engineer	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-1.00	EN				(0.25)	TOPSOIL		
					0.25	Firm, light brown, slightly sandy, slightly gravelly, CLAY. Gravel is fine to coarse and angular to sub-angular.		
					(0.35)	No recovery		
1.00-2.00	EN				(0.40)	No recovery		
					1.00	Firm, light brown, slightly sandy, slightly gravelly, CLAY. Gravel is fine to coarse and angular to sub-angular.		
					(0.60)	No recovery		
2.00-3.00	EN				2.00	Firm, light brown grading into grey, slightly sandy, slightly gravelly CLAY with occasional cobbles of limestone. Gravel is fine to coarse and angular to sub-angular. Fine to coarse sand. Hydrocarbon odours noted from 2.00m - 2.85m.		
					(0.85)	No recovery		
					2.85	Complete at 2.85m		

Remarks Hydrocarbon odours at 2.0m - 2.85m. Refusal at 2.85m.	Scale (approx)	Logged By
	1:25	PM
	Figure No. 8354-01-19.WS-02	



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Site
Cornelscourt

Number
WS-03

Excavation Method Drive-in Windowless Sampler	Dimensions		Ground Level (mOD)	Client DBFL	Job Number 8354-01-19
	Location 722365.3 E 725817.2 N		Dates 22/01/2019	Engineer	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-1.00	EN				(0.30) 0.30	TOPSOIL		
					(0.70)	Firm, light brown, slightly sandy, slightly gravelly CLAY with rare cobbles. Gravel is fine to coarse and of mixed lithologies with angular to sub-angular boulder clay and quartz. Some sub-rounded mudstone.		
1.00-2.00	EN				1.00 (1.00)	Firm, light brown, slightly sandy, slightly gravelly CLAY with occasional sub-angular cobbles of limestone. Sand is fine to coarse. Gravel is fine to coarse and angular to sub-angular.		
2.00-3.00	EN				2.00 (0.70)	Firm, light brown, sandy, slightly gravelly, CLAY with occasional cobbles of boulder clay. Gravel is fine to coarse and angular to sub-angular with fragments of granite. Fine to medium sand.		
					2.70	Complete at 2.70m		

Remarks Refusal at 2.70m.	Scale (approx)	Logged By
	1:25	PM
	Figure No. 8354-01-19.WS-03	



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Site
Cornelscourt

Number
WS-04

Excavation Method Drive-in Windowless Sampler	Dimensions pM to	Ground Level (mOD)	Client DBFL	Job Number 8354-01-19
	Location 722337.6 E 725838.9 N	Dates 21/01/2019	Engineer	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-1.00	EN				(0.30)	TOPSOIL		
					0.30	MADE GROUND: Firm, brown, sandy, slightly gravelly, CLAY with occasional sub-angular cobbles of granite and boulder clay. Gravel is fine to coarse and angular to sub-angular. Fragments of red brick. Occasional plastic and rootlets.		
1.00-2.00	EN				0.70	No recovery		
					(0.30)			
2.00-3.00	EN				1.00	Firm, light brown, sandy, slightly gravelly CLAY with occasional cobbles. Gravel is fine to coarse and angular to sub-angular. Fine to coarse sand.		
					(0.70)			
3.00-4.00	EN				1.70	Firm, grey, sandy, slightly gravelly CLAY with occasional cobbles. Gravel is fine to coarse and angular to sub-angular. Hydrocarbons noted from 1.70m - 3.20m.		
					(1.00)			
					2.70	Firm, grey, sandy, gravelly CLAY. Fine to coarse, angular to sub-angular gravel.		
					(0.50)			
					3.20	Complete at 3.20m		

Remarks Hydrocarbon odours from 1.70m - 3.20m.	Scale (approx)	Logged By
	1:25	PM
	Figure No. 8354-01-19.WS-04	



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Site
Cornelscourt

Number
WS-05

Excavation Method Drive-in Windowless Sampler	Dimensions		Ground Level (mOD)	Client DBFL	Job Number 8354-01-19
	Location 722350.9 E 725825.8 N		Dates 22/01/2019	Engineer	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-1.00	EN				(0.30)	TOPSOIL		
					0.30	Firm, light brown, slightly sandy, slightly gravelly, CLAY with rare subrounded cobbles. Gravel is fine to coarse and angular to sub-angular		
1.00-2.00	EN				(0.70)			
					1.00	Firm, light brown, slightly sandy, slightly gravelly Clay with occasional cobbles of limestone. Gravel is fine to coarse and of mixed lithologies with subangular boulder clay and subrounded to rounded mudstone.		
2.00-3.00	EN				1.90	Firm, sandy, slightly gravelly CLAY with occasional cobbles. Gravel is fine to coarse and angular to sub-angular. Fine to coarse sand. Hydrocarbon odours noted from 1.90m - 2.50m.		
					(0.60)			
					2.50	Complete at 2.50m		

Remarks Hydrocarbon odours from 1.90m - 2.50m. Refusal at 2.50m.	Scale (approx)	Logged By
	1:25	PM
	Figure No. 8354-01-19.WS-05	



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Site
Cornelscourt
Number
WS-06

Excavation Method Drive-in Windowless Sampler	Dimensions		Ground Level (mOD)	Client DBFL	Job Number 8354-01-19
	Location 722362.4 E 725803.9 N		Dates 22/01/2019	Engineer	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-1.00	EN				(0.25) 0.25	TOPSOIL		
					(0.65) 0.90	Firm, light brown, slightly sandy, slightly gravelly, CLAY with rare sub-rounded cobbles of boulder clay. Gravel is fine to medium and angular to sub-angular		
1.00-2.00	EN				(1.10) 2.00	Firm, grey, sandy, gravelly CLAY. Gravel is medium to coarse and angular to sub-angular. Fine to coarse sand.		
2.00-3.00	EN				(0.40) 2.40	Firm, sandy, gravelly CLAY. Gravel is medium to coarse and angular to sub-angular. Fine to coarse sand.		
						Complete at 2.40m		

Remarks Refusal at 2.40m.	Scale (approx)	Logged By
	1:25	PM
	Figure No. 8354-01-19.WS-06	



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Site
Cornelscourt

Number
WS-07

Excavation Method Drive-in Windowless Sampler	Dimensions		Ground Level (mOD)	Client DBFL	Job Number 8354-01-19
	Location 722333.1 E 725833.3 N		Dates 21/01/2019	Engineer	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-1.00	EN				0.00	TOPSOIL		
					0.40	MADE GROUND: Firm, light brown, slightly sandy, slightly gravelly, CLAY with rare sub-rounded cobbles of boulder clay. Gravel is fine to medium and angular to sub-angular		
1.00-2.00	EN				0.50	No recovery		
					0.90 (0.10) 1.00	Firm, slightly sandy, slightly gravelly CLAY with occasional sub-angular cobbles. Gravel is fine to coarse and sub-angular. Medium to coarse sand.		
2.00-3.00	EN				2.00	Firm, grey, sandy, slightly gravelly, CLAY with occasional sub-angular to sub-rounded cobbles. Fine to coarse, sub-angular gravel. Sand is medium to coarse. Hydrocarbon odours noted from 2.0m to 2.90m.		
					0.90			
3.00-4.00	EN				2.90	Firm, grey, sandy, slightly gravelly CLAY.		
					0.30 3.20	Complete at 3.20m		

Remarks Hydrocarbon odours from 2.0m - 3.20m. Refusal at 3.20m	Scale (approx)	Logged By
	1:25	PM
	Figure No. 8354-01-19.WS-07	



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Site
Cornelscourt

Number
WS-08

Excavation Method Drive-in Windowless Sampler	Dimensions		Ground Level (mOD)	Client DBFL	Job Number 8354-01-19
	Location 722343.5 E 725821.1 N		Dates 21/01/2019	Engineer	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-1.00	EN				0.00	TOPSOIL		
					0.40	MADE GROUND: Firm, light brown, slightly sandy, slightly gravelly CLAY. Fine to coarse gravel of mixed lithologies, sub-angular quartz and boulder clay with sub-rounded to rounded mudstone. Occasional fragments of red brick. Plastic. Rootlets.		
1.00-2.00	EN				1.00	Firm, light brown grading into grey at 1.40m, sandy, slightly gravelly CLAY with occasional sub-angular cobbles. Fine to coarse, sub-angular Gravel. Fine to coarse sand.		
					0.80	No recovery		
2.00-3.00	EN				2.00	Firm, grey, sandy, slightly gravelly, CLAY with occasional sub-angular to sub-rounded cobbles. Fine to coarse, sub-angular gravel. Sand is medium to coarse. Hydrocarbon odours noted from 2.00m to 2.80m.		
					0.80	Complete at 2.80m		

Remarks Hydrocarbon odours from 1.80m - 2.80m. Refusal at 2.80m.	Scale (approx)	Logged By
	1:25	PM
	Figure No. 8354-01-19.WS-08	



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Site
Cornelscourt
Number
WS-09

Excavation Method Drive-in Windowless Sampler	Dimensions		Ground Level (mOD)	Client DBFL	Job Number 8354-01-19
	Location 722351.7 E 725808.8 N		Dates 21/01/2019	Engineer	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-1.00	EN				0.00	TOPSOIL		
					(0.35)	Firm, light brown, slightly sandy, slightly gravelly CLAY. Fine to coarse, sub-angular to sub-rounded gravel.		
1.00-2.00	EN				0.35	Firm, grey, sandy, gravelly CLAY with occasional sub-rounded cobbles of mudstone. Fine to coarse, sub-angular gravel. Fine to coarse sand.		
					(0.35)			
2.00-3.00	EN				0.70	Firm, brown, sandy, gravelly CLAY. Gravel is fine to coarse and angular to sub-angular.		
					(0.30)			
					1.00	Firm, brown, slightly sandy, slightly gravelly CLAY. Fine to coarse gravel of mixed lithologies, sub-angular boulder clay with sub-angular to sub-rounded quartz and mudstone.		
					(0.30)			
					1.30	Firm, grey, sandy, slightly gravelly CLAY with occasional sub-rounded cobbles of boulder clay. Gravel is fine to coarse and angular to sub angular.		
					(0.70)			
					2.00	Complete at 3.00m		

Remarks Refusal at 3.00m.	Scale (approx)	Logged By
	1:25	PM
	Figure No. 8354-01-19.WS-09	



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Site
Cornelscourt

Number
WS-10

Excavation Method Drive-in Windowless Sampler	Dimensions		Ground Level (mOD)	Client DBFL	Job Number 8354-01-19
	Location 722327.9 E 725827.8 N		Dates 21/01/2019	Engineer	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-1.00	EN				(0.30)	TOPSOIL		
					0.30	MADE GROUND: Firm, light brown, slightly sandy, slightly gravelly CLAY with cobbles of subangular granite and subrounded mudstone. Fine to coarse, sub-angular gravel. Occasional fragments of red brick. Occasional plastic. Rootlets.		
1.00-2.00	EN				(0.60)			
					0.90	Firm, brown, slightly sandy, slightly gravelly CLAY with occasional sub-rounded cobbles. Fine to coarse, sub-angular gravel. Fine to coarse sand.		
2.00-3.00	EN				(1.00)			
					1.90	Firm, brown grading into grey at 2.60m, slightly sandy, slightly gravelly CLAY. Gravel is fine to coarse and angular to sub-angular.		
					2.90	Firm, grey, slightly sandy, slightly gravelly CLAY. Fine to coarse, angular to sub-angular gravel. Hydrocarbon odours noted from 2.90m - 3.20m		
					3.20	Complete at 3.20m		

Remarks Hydrocarbon odours noted from 2.90m - 3.20m. Refusal at 3.20m.	Scale (approx)	Logged By
	1:25	PM
	Figure No. 8354-01-19.WS-10	



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Site
Cornelscourt

Number
WS-12

Excavation Method Drive-in Windowless Sampler	Dimensions		Ground Level (mOD)	Client DBFL	Job Number 8354-01-19
	Location 722350.2 E 725796.3 N		Dates 22/01/2019	Engineer	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-1.00	EN				0.45	TOPSOIL		
					0.55	MADE GROUND: Firm, light brown, slightly sandy, slightly gravelly CLAY with occasional sub-angular to sub-rounded cobbles. Fine to coarse, sub-angular gravel. Frequent fragments of wood and red brick. Frequent plastic and clothing. Rootlets.		
1.00-2.00	EN				1.00	Firm, grey, slightly sandy, slightly gravelly CLAY with occasional sub-rounded cobbles of boulder clay and mudstone. Fine to coarse, angular to sub-angular gravel. Fine to coarse sand.		
					1.00			
2.00-3.00	EN				2.00	Firm, grey, slightly sandy, gravelly CLAY with occasional cobbles. Fine to coarse, angular to sub-angular gravel. Medium to coarse sand.		
					1.00			
					3.00	Complete at 3.00m		

Remarks Refusal at 3.00m.	Scale (approx)	Logged By
	1:25	PM
	Figure No. 8354-01-19.WS-12	



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Site
Cornelscourt

Number
WS-13

Excavation Method Drive-in Windowless Sampler	Dimensions		Ground Level (mOD)	Client DBFL	Job Number 8354-01-19
	Location 722341.8 E 725866.3 N		Dates 22/01/2019	Engineer	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-1.00	EN				0.00 - 0.35	TOPSOIL		
					0.35 - 0.65	MADE GROUND: Firm, light brown, slightly sandy, slightly gravelly CLAY with occasional sub-angular cobbles. Fine to coarse, sub-angular gravel. Fragments of wood, red brick and granite. Frequent plastic and clothing. Rootlets.		
1.00-2.00	EN				1.00 - 1.00	Firm, grey, sandy, gravelly CLAY with occasional sub-angular to sub-rounded cobbles. Gravel is fine to coarse and angular to sub-angular. Sand is fine to coarse		
					1.00 - 2.00			
2.00-3.00	EN				2.00 - 1.00	Firm, grey, sandy, gravelly CLAY with occasional sub-angular to sub-rounded cobbles. Fine to coarse, sub-angular gravel. Fine to coarse sand.		
					1.00 - 3.00	Complete at 3.00m		

Remarks Refusal at 3.00m	Scale (approx)	Logged By
	1:25	PM
	Figure No. 8354-01-19.WS-13	

APPENDIX 7 – Cable Percussion Borehole Logs



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Site
Cornelscourt

Borehole Number
BH-02

Machine : DANDO 2000 Method : Cable Percussion	Casing Diameter 200mm to	Ground Level (mOD)	Client DBFL	Job Number 8354-01-19
	Location Cornelscourt	Dates 14/02/2019	Engineer	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.00-1.45 1.00	SPT(C) N=3 B			1,0/1,1,0,1		0.40 0.40 (0.60) 1.00 (1.00)	<p>TOPSOIL</p> <p>MADE GROUND: Light brown slightly sandy slightly gravelly CLAY with rare sub-angular to subrounded cobbles with occasional plastic and ceramics. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel.</p> <p>Very soft to soft light brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sand with fine to coarse sub-angular subrounded granite.</p>		
2.00 2.00-2.05	B SPT(C) 25*/50 50/0			Water strike(1) at 2.00m, rose to 1.60m in 20 mins. 25/50		2.00	<p>Obstruction granite rock</p> <p>Complete at 2.05m</p>		<p>▼1</p> <p>▼1</p>

Remarks Obstruction granite rock.	Scale (approx)	Logged By
	1:50	PM
	Figure No. 8354-01-19.BH-02	



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Site
Cornelscourt

Borehole Number
BH-03

Machine : Dando 2000	Casing Diameter 200mm to	Ground Level (mOD)	Client DBFL	Job Number 8354-01-19
Method :	Location Cornelscourt	Dates 13/02/2019	Engineer	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.00-1.30 1.00	SPT(C) 3/150 B			1,1/0,1,1,1		0.40	Brown slightly sandy slightly gravelly TOPSOIL with grass rootlets.		
						0.60	Soft light brown slightly sandy slightly gravelly CLAY with rare sub-angular to subrounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel.		
2.00-2.45 2.00	SPT(C) N=9 B			3,2/3,2,2,2		1.00	Soft to firm reddish brown slightly sandy slightly gravelly CLAY with rare sub angular to subrounded cobbles and frequent fragments of granite. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel.		
						1.90			
3.00-3.45 3.00	SPT(C) N=25 B			4,5/6,6,6,7		2.90	Stiff brown slightly sandy slightly gravelly CLAY with rare sub-angular to sub rounded cobbles Fine to coarse sand with fine to coarse sub-angular to subrounded gravel.		▼1
4.00	B			Water strike(1) at 4.00m, rose to 3.00m in 20 mins.		4.00	Very stiff brown slightly sandy slightly gravelly CLAY with occasional sub-angular to sub rounded cobbles. Sand is fine to coarse and gravel is fine to coarse and sub-angular to subrounded.		▽1
4.00-4.45	SPT(C) N=46			9,11/12,11,10,13		4.00			
5.00-5.33 5.00	SPT(C) 50/180 B			14,16/19,20,11		5.00	Very stiff brown slightly sandy slightly gravelly CLAY with rare sub-angular to sub rounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel.		
6.00-6.23 6.00	SPT(C) 50/80 B			12,30/38,12		6.00	Refusal at 6.0m. Complete at 6.00m		

Remarks	Scale (approx)	Logged By
	1:50	PM
	Figure No. 8354-01-19.BH-03	



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Site
Cornelscourt

Borehole Number
BH-05

Machine : Dando 2000	Casing Diameter 200mm to	Ground Level (mOD)	Client DBFL	Job Number 8354-01-19
Method :	Location Cornelscourt	Dates 14/02/2019	Engineer	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.00-1.30 1.00	SPT(C) 7/150 B			1,1/1,2,2,2		(0.20) 0.20	Brown slightly sandy slightly gravelly TOPSOIL with grass rootlets.		
						(0.90)	MADE GROUND: Light brown slightly sandy slightly flint gravelly CLAY with concrete slab. Fine to coarse sand and fine to coarse sub-angular to subrounded gravel.		
2.00-2.45 2.00	SPT(C) N=14 B			3,2/4,4,3,3		1.10	Firm to stiff brown slightly sandy gravelly CLAY with occasional subangular to subrounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel.		
3.00-3.45 3.00	SPT(C) N=42 B			6,7/9,9,13,11		(1.90)			
4.00-4.32 4.00	SPT(C) 50/170 B			10,10/14,20,16		3.00	Very stiff brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Sand is fine to coarse and sub-angular to subrounded gravel.		
						(1.70)			
5.00-5.33 5.00	SPT(C) 50/180 B			18,19/24,26		4.70	Very stiff brown slightly sandy laminated CLAY with rare gravel and rare sub-angular to subrounded cobbles. Fine to coarse sand and fine to coarse sub-angular to subrounded gravel. Frequent shell fragments.		
						(1.10)			
5.80	B			Water strike(1) at 5.80m, rose to 5.50m in 20 mins.		5.80	Obstruction 5.8m onto granite. Complete at 5.80m		▼1 ▽1

Remarks	Scale (approx)	Logged By
	1:50	PM
	Figure No. 8354-01-19.BH-05	



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Site
Cornelscourt

Borehole Number
BH-06

Machine : Dando 2000	Casing Diameter 200mm to	Ground Level (mOD)	Client DBFL	Job Number 8354-01-19
Method :	Location Cornelscourt	Dates 13/02/2019	Engineer	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.00-1.30 1.00	SPT(C) 9/150 B			2,2/2,3,3,1		(0.20) 0.20	Brown slightly sandy slightly gravelly TOPSOIL with grass rootlets.		
2.00-2.45 2.00	SPT(C) N=11 B			2,4/2,3,3,3		(1.80) 2.00	Firm light brown slightly sandy slightly gravelly CLAY with occasional sub-angular to sub-rounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel.		
3.00-3.45 3.00	SPT(C) N=19 B			3,4/4,4,5,6		2.80 (1.20)	Stiff dark grey slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sand and fine to coarse sub-angular to subrounded gravel.		
4.00-4.44 4.00	SPT(C) 50/285 B			8,16/14,12,14,10		4.00 (0.60) 4.60	Very stiff dark grey slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sand and fine to coarse sub-angular to subrounded gravel.		▼1
				Water strike(1) at 4.50m, rose to 4.00m in 20 mins.			Obstruction 4.6m onto possible granite - no recovery. Complete at 4.60m		▼1

Remarks Groundwater at 4.5m Obstruction at 4.6m onto possible granite - no recovery.	Scale (approx)	Logged By
	1:50	PM
	Figure No. 8354-01-19.BH-06	



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Site
Cornelscourt

Borehole Number
BH-07

Machine : Dando 2000	Casing Diameter 200mm to	Ground Level (mOD)	Client DBFL	Job Number 8354-01-19
Method :	Location Cornelscourt	Dates 11/02/2019	Engineer	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.00-1.30 1.00	SPT(C) 5/150 B			1,1/2,1,1,1		0.20 0.20 0.80 1.00	Brown slightly sandy slightly gravelly TOPSOIL with grass rootlets. Soft to firm brown slightly sandy slightly gravelly CLAY with occasional sub-angular to sub-rounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel. Firm to stiff brown slightly sandy slightly gravelly CLAY with occasional sub-angular to sub-rounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel.		▼1
2.00-2.45 2.00	SPT(C) N=13 B			1,1/2,3,3,5		(2.00)			▼1
3.00 3.00-3.24	B SPT(C) 30*/145 50/95			Water strike(1) at 2.70m, rose to 1.20m in 20 mins. 30/50		3.00 (0.70) 3.70	Very stiff brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel. Obstruction onto possible granite rock at 3.70m- no recovery. Complete at 3.70m		

Remarks Groundwater No recovery	Scale (approx)	Logged By
	1:50	PM
	Figure No. 8354-01-19.BH-07	



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Site
Cornelscourt
Borehole Number
BH-08

Machine : Dando 2000	Casing Diameter 200mm to	Ground Level (mOD)	Client DBFL	Job Number 8354-01-19
Method :	Location Cornelscourt	Dates 15/02/2019	Engineer	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.00-1.30 1.00	SPT(C) 4/150 B			1,2/1,1,1,1		(0.20) 0.20 (1.10) 1.30 (0.70)	Brown slightly sandy slightly gravelly TOPSOIL. Soft brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel. Firm to very stiff brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Sand is fine to coarse and gravel is fine to coarse and sub-angular to subrounded..		
2.00-2.45	SPT(C) N=50			25/50		2.00 Complete at 2.00m	Obstruction: Possible granite boulder or rock at 2.0m.. No recovery at 2.0m.		

Remarks No recovery at 2.0m Obstruction onto granite rock.	Scale (approx) 1:50	Logged By PM
	Figure No. 8354-01-19.BH-08	



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Site
Cornelscourt

Borehole Number
BH-09

Machine : Dando 2000	Casing Diameter 200mm to	Ground Level (mOD)	Client DBFL	Job Number 8354-01-19
Method :	Location Cornelscourt	Dates 12/02/2019	Engineer	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.00-1.30 1.00	SPT(C) 14/150 B			2,3/3,4,4,3		(0.40)	Brown slightly sandy slightly gravelly TOPSOIL.		
						0.40	Firm to stiff brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles and fine to coarse sub-angular to subrounded gravel.		
2.00-2.45 2.00	SPT(C) N=18 B			2,4/5,5,4,4		(1.60)			
						2.00	Stiff brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel.		
						(0.90)			
						2.90	Obstruction at 2.9m granite rock. No recovery.		
							Complete at 2.95m		

Remarks Obstruction at 2.9m possible granite No recovery at 2.9m	Scale (approx)	Logged By
	1:50	PM
	Figure No. 8354-01-19.BH-09	



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Site
Cornelscourt

Borehole Number
BH-10

Machine : Dando 2000	Casing Diameter 200mm to	Ground Level (mOD)	Client DBFL	Job Number 8354-01-19
Method :	Location Cornelscourt	Dates 12/02/2019	Engineer	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.00-1.45 1.00	SPT(C) N=11 B			3,2/3,3,3,2		(0.40) 0.40 (0.30) 0.70	Brown slightly sandy slightly gravelly TOPSOIL. Soft to firm light brown slightly sandy slightly gravelly CLAY with rare sub-angular to subrounded cobbles. Fine to coarse sand and fine to coarse sub-angular to subrounded gravel Soft brown slightly sandy slightly gravelly CLAY with rare sub angular cobbles.		
2.00-2.45 2.00	SPT(C) N=7 B			1,1/2,2,2,1		(1.90)			
2.60	B					2.60	Obstruction at 2.6m onto granite rock. Complete at 2.60m		

Remarks Obstruction onto granite rock	Scale (approx)	Logged By
	1:50	PM
	Figure No. 8354-01-19.BH-10	



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Site
Cornelscourt

Borehole Number
BH-11

Machine : Dando 2000	Casing Diameter 200mm to	Ground Level (mOD)	Client DBFL	Job Number 8354-01-19
Method :	Location Cornelscourt	Dates 12/02/2019	Engineer	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00	B					0.20 0.20	Brown slightly sandy slightly gravelly TOPSOIL.		
1.00-1.30	SPT(C) 6/150			1,1/1,1,2,2		0.50 0.70 1.30	Soft to firm brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sand wit fine to coarse sub-angular to subrounded gravel.		
2.00-2.45 2.00	SPT(C) N=9 B			2,3/3,2,2,2		2.00 1.20	Firm brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sand wit fine to coarse sub-angular to subrounded gravel.		▼1
3.00 3.20 3.00-3.27	B B SPT(C) 50/115			Water strike(1) at 3.00m, rose to 1.50m in 20 mins. 2,2/50		3.20	Very stiff grey slightly sandy slightly gravelly CLAY with occasional sub-rounded cobbles. Gravel is fine to coarse and angular to sub angular.		▼1
							Obstruction at 3.2m onto granite rock. Complete at 3.20m		

Remarks Obstruction onto granite rock	Scale (approx)	Logged By
	1:50	PM
	Figure No. 8354-01-19.BH-11	

APPENDIX 8 – Rotary Borehole Logs



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Site
Cornelscourt

Borehole Number
BH-02

Machine : Dando 2000 + T44	Casing Diameter 200mm to 2.05m 100mm to 17.40m	Ground Level (mOD) 48.71	Client	Job Number 8354-01-19
Flush : Water	Location Cornelscourt	Dates 14/02/2019- 04/03/2019	Engineer DBFL	Sheet 1/2
Core Dia: HQ mm				
Method : Rotary Cored				

Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.00-1.45 1.00					1,0/1,1,0,1 SPT(C) N=3 B	48.31	(0.40) 0.40	TOPSOIL		
2.00	50				25/50 Water strike(1) at 2.00m, rose to 1.60m in 20 mins. SPT(C) 25*/50 50/0 B	47.71	(0.60) 1.00	MADE GROUND: Light brown slightly sandy slightly gravelly CLAY with rare sub-angular to subrounded cobbles and occasional plastic and ceramics. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel.		
2.00-2.05 2.40 2.00						46.71	(1.00) 2.00	Very soft to soft light brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded granite.		▼1
3.90	13						(3.60)	Driller notes sandy Silt and Gravel. Recovery consists of grey subrounded sandy Gravel and cobbles fragments. Recovery typically 0% to 13%. Fines likely washed away.		▼1
5.40 5.40-5.69	0				6,11/19,31 SPT(C) 50/135	43.11	5.60	Driller notes Brown Boulder Clay. Recovery consists of grey brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sub-angular to subrounded gravel. Recovery typically 13%.		
6.90 6.90-7.26	73				4,9/14,18,18 SPT(C) 50/205	41.61	7.10	Driller notes Brown Clay and Gravel. Recovery consists of brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sub-angular to subrounded gravel. Recovery typically 17 to 30%.		
8.40 8.40-8.85	30				4,6/6,9,11,9 SPT(C) N=35		(2.80)			
9.90	17					38.81	9.90			

Remarks Cable percussion refusal on overburden. Borehole continued with rotary core technique to 17.40m below ground level. Groundwater encountered at 2.0m.	Scale (approx)	Logged By
	1:50	PM
	Figure No. 8354-01-19.BH-02	



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Site
Cornelscourt

Borehole Number
BH-02

Machine : Dando 2000 + T44	Casing Diameter 200mm to 2.05m 100mm to 17.40m	Ground Level (mOD) 48.71	Client	Job Number 8354-01-19
Flush : Water			Engineer DBFL	Sheet 2/2
Core Dia: HQ mm	Location Cornelscourt	Dates 14/02/2019- 04/03/2019		
Method : Rotary Cored				

Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
9.90-10.35	0				3,3/4,3,5,5 SPT(C) N=17		(1.50)	Driller notes Sand. No recovery.		
11.40 11.40-11.85					6,8/8,10,10,13 SPT(C) N=41	37.31	11.40 (0.60)	Driller notes Sand and Clay. Recovery consists of sandy CLAY.		
12.00	93	68	68			36.71	12.00	Strong to very strong coarsely crystalline massive orange white GRANITE. Partially weathered with quartz sand on fracture surfaces.		
12.90				6						
14.00 14.40	100	90	85				(5.40)			
15.90 16.00										
17.40	100	94	90	5		31.31	17.40	12.00m to 17.40m Fracture set:1 Close to widely spaced at 0-20 degrees orientation, stepped rough, tight to open, stained brown.		
								Complete at 17.40m		

Remarks Cable percussion refusal on overburden. Borehole continued with rotary core technique to 17.40m below ground level.	Scale (approx)	Logged By
	1:50	PM
	Figure No. 8354-01-19.BH-02	



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Site
Cornelscourt

Borehole Number
BH-03

Machine : Dando 2000 +T44	Casing Diameter 200mm to 6.00m 100mm to 15.90m	Ground Level (mOD) 48.32	Client	Job Number 8354-01-19
Flush : Water			Engineer DBFL	Sheet 1/2
Core Dia: HQ mm	Location 722440.5 E 725871.9 N	Dates 14/02/2019- 05/03/2019		
Method :				

Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
1.00-1.45 1.00-2.00					1,1/0,1,1,1 SPT(C) N=3 B	48.12	(0.20) 0.20	Brown slightly sandy slightly gravelly TOPSOIL with frequent rootlets.			
2.00-2.45 2.00-3.00					3,2/3,2,2,2 SPT(C) N=9 B	47.22	(0.90) 1.10	MADE GROUND: Light brown slightly sandy slightly gravelly CLAY with concrete slab. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel.			
3.00-3.45 3.00-4.00					4,5/6,6,6,7 SPT(C) N=25 B	45.32	3.00	Firm brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel.		▼1	
4.00-4.45 4.00-5.00					9,11/12,11,10,12 Water strike(1) at 4.00m, rose to 3.00m in 20 mins. SPT(C) N=45 B	43.62	(1.70) 4.70	Stiff brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Sand is fine to coarse with fine to coarse sub-angular to subrounded gravel.		▼1	
5.00-5.33 5.00-6.00					14,16/19,20,11 SPT(C) 50/180 B	42.52	(1.10) 5.80	Very stiff brown slightly sandy slightly gravelly laminated CLAY with rare gravel and rare sub-angular to subrounded cobbles. Fine to coarse sand and fine to coarse sub-angular to subrounded gravel. Frequent shell fragments.			
5.40											
6.00-6.23	100				12,30/38,12 SPT(C) 50/80	41.12	(1.40) 7.20	Driller notes brown boulder CLAY to 9.70m. Recovery consists of greyish brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel.			
6.90 6.90-7.24					8,13/17,21,12 SPT(C) 50/185	39.92	(1.20) 8.40	Driller notes brown boulder CLAY. Recovery consists of slightly sandy gravelly CLAY with occasional sub-angular to subrounded gravel.			
7.30	73										
8.40 8.40-8.85					6,9/9,14,12,13 SPT(C) N=48	38.62	(1.30) 9.70	Driller notes brown boulder CLAY. Recovery consists of brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel.			
8.85	42										
9.90								Extremely weak to medium strong coarsely crystalline massive orange white GRANITE			

Remarks Cable percussion refusal on overburden. Borehole continued with rotary core technique to 15.90m below ground level. Groundwater encountered at 4.00m.	Scale (approx) 1:50	Logged By PM
Figure No. 8354-01-19.BH-03		



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Site
Cornelscourt
Borehole Number
BH-03

Machine : Dando 2000 +T44	Casing Diameter 200mm to 6.00m 100mm to 15.90m	Ground Level (mOD) 48.32	Client	Job Number 8354-01-19
Flush : Water	Location 722440.5 E 725871.9 N	Dates 14/02/2019- 05/03/2019	Engineer DBFL	Sheet 2/2
Core Dia: HQ mm				
Method :				

Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
9.90-10.09	40	22	19		7,15/25 SPT(C) 25/40			distinctly weathered. Distinctly weathered.			
11.40 11.40-11.84	29	21	19	6	9,16/50 SPT(C) 25*/140 N=50		(6.20)	Fracture set 1: 9.90m - 12.45m, Close to medium spaced at 0 - 20 degrees orientation, stepped rough, tight to open, stained brown with quartz sand on fracture surface.			
12.90											
13.50	100	64	57	4				Fracture set 1: From 12.45m - 13.50m, close to medium spaced at 0 - 20 degrees orientation, stepped rough, tight to open, stained brown.			
14.40	100	17	17								
15.90						32.42	15.90	Non intact from 14.4m to 15.90m. Complete at 15.90m			

Remarks Cable percussion refusal on overburden. Borehole continued with rotary core technique to 15.90m below ground level.	Scale (approx)	Logged By
	1:50	PM
	Figure No. 8354-01-19.BH-03	



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Site
Cornelscourt

Borehole Number
BH-04

Machine : Dando 2000 +T44	Casing Diameter 100mm to 13.70m	Ground Level (mOD) 51.52	Client	Job Number 8354-01-19
Flush : Water			Engineer DBFL	Sheet 1/2
Core Dia : HQ mm	Location 722352.4 E 725894.8 N	Dates 14/02/2019-04/03/2019		
Method : Rotary Cored				

Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
51.32							(0.20) 0.20	TOPSOIL		
2.40	8						(4.60)	Driller notes brown silty gravelly CLAY with gravel from 0.0m to 4.80m. Recovery consists of dark brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel. Recovery typically 8% to 40%.		
3.90	33									
5.40										
5.40-5.83					4,8/10,14,14,12 SPT(C) 50/280	46.72	4.80	Driller notes black gravelly boulder CLAY. Recovery consists of dark grey slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel. Recovery typically 27% to 30%.		
6.90										
6.90-7.28					7,8/11,16,21,2 SPT(C) 50/230		(3.60)			
8.40										
8.40-8.85				7	3,5/5,8,7,10 SPT(C) N=30	43.12	8.40	Extremely weak to medium strong coarsely crystalline massive orange white GRANITE. Partially weathered to unweathered.		
9.10	100	81	62	5				Fracture set 1: From 8.40m - 9.10m, close to medium spaced at 0 - 20 degrees orientation, stepped rough, tight to open, clay smearing on fracture surfaces.		
9.90								Fracture set 1: From 9.10 - 9.90m, close to medium		

Remarks No groundwater encountered	Scale (approx)	Logged By
	1:50	PM
	Figure No. 8354-01-19.BH-04	



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Site
Cornelscourt
Borehole Number
BH-04

Machine : Dando 2000 +T44	Casing Diameter 100mm to 13.70m	Ground Level (mOD) 51.52	Client	Job Number 8354-01-19
Flush : Water				
Core Dia: HQ mm			Engineer DBFL	Sheet 2/2
Method : Rotary Cored	Location 722352.4 E 725894.8 N	Dates 14/02/2019- 04/03/2019		

Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.90	100	46	40	5				spaced at 10 - 30 degrees orientation, stepped rough, tight to open, stained brown.		
11.40				6		(5.30)		Fracture set 1: From 9.90m - 10.90m, close to medium spaced at 10 - 30 degrees orientation, stepped rough, tight to open, stained brown.		
11.75				4				Fracture set 1: From 10.90m - 11.75m, close to medium spaced at 10 - 30 degrees orientation, stepped rough, tight to open, stained brown.		
12.90	100	100	89	4				Fracture set 1: From 11.75m - 12.90m, close to medium spaced at 30 - 40 degrees orientation, stepped rough, tight to open.		
13.70	100	82	76	5		37.82	13.70	Fracture set 1: From 12.90m - 13.70m, close to medium spaced at 30 - 40 degrees orientation, stepped rough, tight to open.		
								Complete at 13.70m		

Remarks No groundwater encountered	Scale (approx)	Logged By
	1:50	PM
	Figure No. 8354-01-19.BH-04	



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Site
Cornelscourt

Borehole Number
BH-05

Machine : Dando 2000 + T44	Casing Diameter 200mm to 5.80m 100mm to 10.80m	Ground Level (mOD) 50.31	Client	Job Number 8354-01-19
Flush : Water	Location Cornelscourt	Dates 14/02/2019- 07/03/2019	Engineer DBFL	Sheet 1/2
Core Dia: HQ mm				
Method : Rotary Cored				

Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.00-1.30 1.00					1,1/1,2,2,2 SPT(C) 7/150 B	50.11	(0.20) 0.20	Brown slightly sandy slightly gravelly TOPSOIL with grass rootlets.		
2.00-2.45 2.00					3,2/4,4,3,3 SPT(C) N=14 B	49.21	1.10	MADE GROUND: Light brown slightly sandy slightly gravelly CLAY with concrete slab. Fine to coarse sand and fine to coarse sub-angular to subrounded gravel.		
3.00-3.45 3.00					6,7/9,9,13,11 SPT(C) N=42 B	47.31	3.00	Firm brown slightly sandy gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel.		
4.00-4.32 4.00					10,10/14,20,16 SPT(C) 50/170 B	45.61	4.70	Very stiff brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Sand is fine to coarse and sub-angular to subrounded gravel.		
5.00-5.33 5.00					18,19/24,26 SPT(C) 50/180 B	44.51	5.80	Very stiff brown slightly sandy laminated CLAY with rare gravel and rare sub-angular to subrounded cobbles. Fine to coarse sand and fine to coarse sub-angular to subrounded gravel. Frequent shell fragments.		▼1
5.90 5.80	100	45	30	8	Water strike(1) at 5.80m, rose to 5.50m in 20 mins. B	44.51	5.80	Medium strong to strong coarsely crystalline orange greyish white Granite. Partially weathered to unweathered . Quartz sand on fracture surface.		▼1
6.90	100	100	96	4		43.41	6.90	Medium strong to strong coarsely crystalline orange greyish white Granite. Partially weathered to unweathered . Quartz sand on fracture surface. One fracture set. Fracture set 1: Close to medium spaced at 30 - 40 degrees orientation, planar rough, tight to open, stained brown.		
8.40	100	90	90	6		41.91	8.40	Medium strong to strong coarsely crystalline orange greyish white Granite. Partially weathered to unweathered . Quartz sand on fracture surface. One fracture set. Fracture set 1: Close to medium spaced at 30 - 45 degrees orientation, planar rough to smooth, tight to open, stained brown.		
9.90						40.41	9.90			

Remarks Cable percussion refusal on overburden. Borehole continued with rotary core technique to 10.80m below ground level. Groundwater encountered at 5.80m.	Scale (approx)	Logged By
	1:50	PM
	Figure No. 8354-01-19.BH-05	



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Site
Cornelscourt

Borehole Number
BH-05

Machine : Dando 2000 + T44	Casing Diameter 200mm to 5.80m 100mm to 10.80m	Ground Level (mOD) 50.31	Client	Job Number 8354-01-19
Flush : Water	Location Cornelscourt	Dates 14/02/2019- 07/03/2019	Engineer DBFL	Sheet 2/2
Core Dia: HQ mm				
Method : Rotary Cored				

Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.80	100	82	82	5		39.51	10.80	<p>Medium strong to strong coarsely crystalline orange greyish white Granite. Partially weathered to unweathered . Quartz sand on fracture surface.</p> <p>One fracture set. Fracture set 1: Close to medium spaced at 30 - 40 degrees orientation, planar rough, tight to open, stained brown.</p> <p>One fracture set. Fracture set 1: Close to medium spaced at 20 - 30 degrees orientation, planar rough to smooth, tight to open, stained brown.</p> <p>Complete at 10.80m</p>		

Remarks Cable percussion refusal on overburden. Borehole continued with rotary core technique to 10.80m below ground level.	Scale (approx)	Logged By
	1:50	PM
	Figure No. 8354-01-19.BH-05	



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Site
Cornelscourt

Borehole Number
BH-06

Machine : Dando 2000 + T44	Casing Diameter 200mm to 4.60m 100mm to 11.10m	Ground Level (mOD) 49.65	Client	Job Number 8354-01-19
Flush : Water	Location Cornelscourt	Dates 13/02/2019- 06/03/2019	Engineer DBFL	Sheet 1/2
Core Dia: HQ mm				
Method : Rotary Cored				

Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
						49.45	(0.20) 0.20	Brown slightly sandy slightly gravelly TOPSOIL with grass rootlets.		
1.00-1.30 1.00					2,2/2,3,3,1 SPT(C) 9/150 B		(1.80)	Firm light brown slightly sandy slightly gravelly CLAY with occasional sub-angular to sub-rounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel.		
2.00-2.45 2.00					2,4/2,3,3,3 SPT(C) N=11 B	47.65	2.00	Firm light brown slightly sandy slightly gravelly CLAY with occasional sub-angular to sub-rounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel.		
							(0.80)			
3.00-3.45 3.00					3,4/4,4,5,6 SPT(C) N=19 B	46.85	2.80	Stiff dark grey slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sand and fine to coarse sub-angular to subrounded gravel.		
							(1.20)			
4.00-4.44 4.00					8,16/14,12,14,10 SPT(C) 50/285 B	45.65	4.00	Very stiff dark grey slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sand and fine to coarse sub-angular to subrounded gravel. Recovery typically 33%.		▼1
							(0.60)			
4.50	33				Water strike(1) at 4.50m, rose to 4.00m in 20 mins.	45.05	4.60	Driller notes Silt Gravel and Clay. Recovery consists of greyish brown slightly sandy slightly gravelly CLAY with occasional angular to sub-angular cobbles.		▼1
							(1.10)			
5.40 5.40-5.81					4,4/7,13,21,9 SPT(C) 50/255		43.95	Very weak to weak coarsely crystalline orange white GRANITE partially weathered with quartz bands and quartz sand on fracture surfaces. 5.70m - 6.0m non intact.		
5.70				N.I.			(1.20)			
6.00	80	30	30	8			42.75	Very weak to weak coarsely crystalline orange white GRANITE partially weathered quartz sand on fracture surfaces. Fracture set 1: Close to medium spaced at 30 - 45 degrees, stepped rough, tight to open, stained brown.		
							(1.50)			
6.90	80	70	59	9			41.25	Fracture set 1: Close to medium spaced at 30 - 45 degrees, stepped rough, tight to open, stained brown.		
							(1.50)			
7.90				1			8.40	Very weak to weak coarsely crystalline orange white GRANITE partially weathered. Fracture set 1: Close to medium spaced at 30 - 45 degrees, stepped rough, tight to open, stained brown.		
							(1.50)			
8.40				N.I.			9.00	Non intact.		
							(1.50)			
9.00	86	21	16	4			39.75			
9.90										

Remarks Cable percussion refusal on overburden. Borehole continued with rotary core technique to 11.10m below ground level. Groundwater at 4.50m	Scale (approx) 1:50	Logged By PM
Figure No. 8354-01-19.BH-06		



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Site
Cornelscourt

Borehole Number
BH-06

Machine : Dando 2000 + T44	Casing Diameter 200mm to 4.60m 100mm to 11.10m	Ground Level (mOD) 49.65	Client	Job Number 8354-01-19
Flush : Water			Engineer DBFL	Sheet 2/2
Core Dia: HQ mm	Location Cornelscourt	Dates 13/02/2019- 06/03/2019		
Method : Rotary Cored				

Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.60	100	53	53	4			(1.20)	Very weak to weak coarsely crystalline orange white GRANITE partially weathered. Fracture set 1: Close to medium spaced at 30 - 45 degrees, stepped rough, tight to open, stained brown.		
11.10				N.I.		38.55	11.10	Complete at 11.10m		

Remarks Cable percussion refusal on overburden. Borehole continued with rotary core technique to 11.10m below ground level.	Scale (approx)	Logged By
	1:50	PM
	Figure No. 8354-01-19.BH-06	



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Site
Cornelscourt

Borehole Number
BH-07

Machine : Dando 2000 + T44	Casing Diameter 200mm to 3.70m 100mm to 11.40m	Ground Level (mOD) 52.56	Client	Job Number 8354-01-19
Flush : Water			Engineer DBFL	Sheet 1/2
Core Dia: HQ mm	Location Cornelscourt	Dates 11/02/2019- 07/03/2019		
Method : Rotary Cored				

Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.00						52.36	(0.20)	Brown slightly sandy slightly gravelly TOPSOIL with grass rootlets.			
1.00-1.30					1,1/2,1,1,1 SPT(C) 5/150 B	51.56	1.00	Soft to firm brown slightly sandy slightly gravelly CLAY with occasional sub-angular to sub-rounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel.			
2.00-2.45					1,1/2,3,3,5 SPT(C) N=13 B		(2.00)	Firm to stiff brown slightly sandy slightly gravelly CLAY with occasional sub-angular to sub-rounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel.			
3.00-3.24					30/50 Water strike(1) at 2.70m, rose to 1.20m in 20 mins. SPT(C) 30*/145 50/95 B	49.56	3.00	Very stiff brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel.			
3.00	50					48.86	(0.70)	Driller notes brown Silty Clay with Gravel. Recovery consists of brown slightly silty slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles.			
3.50						48.66	(0.20)	Driller notes brown Silty Clay with Gravel. Recovery consists of brown slightly silty slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles.			
3.90		20					(1.50)	Driller notes brown Silty Clay with Gravel. Recovery consists of brown slightly silty slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles.			
5.40					3,4/4,6,5,8 SPT(C) N=23	47.16	5.40	Driller notes brown Silty Clay with Gravel. Recovery consists of brown slightly silty slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles.			
5.40-5.85	56	11	6				(0.90)	Driller notes brown Silty Clay with Gravel. Recovery consists of brown slightly silty slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles.			
6.30				N.I.		46.26	6.30	Weak to medium strong coarsely crystalline whitish orange GRANITE. Partially weathered to unweathered with quartz sand on fracture surface.			
6.90				N.I.		45.66	6.90	Weak to medium strong coarsely crystalline whitish orange GRANITE. Partially weathered to unweathered with quartz sand on fracture surface			
7.20	100	32	24	6			(1.50)	Non intact from 5.40m - 7.20m			
7.90				N.I.				Fracture set 1: Close to medium spaced at 0 - 20 degrees, stepped rough, tight to open, stained brown.			
8.40				N.I.		44.16	8.40	Weak to medium strong coarsely crystalline whitish orange GRANITE. Partially weathered to unweathered with quartz sand on fracture surface			
8.75	100	44	40	6			(1.50)	Non intact from 7.20m - 8.75m.			
9.35				N.I.				Fracture set 1: Close to medium spaced at 30 - 45 degrees, stepped rough, tight to open, stained brown.			
9.90				N.I.		42.66	9.90				

Remarks Cable percussion refusal on overburden. Borehole continued with Rotary Core technique to 11.40m Below Ground Level. Groundwater at 2.70m.	Scale (approx) 1:50	Logged By PM
Figure No. 8354-01-19.BH-07		



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Site
Cornelscourt

Borehole
Number
BH-07

Machine : Dando 2000 + T44 Flush : Water Core Dia : HQ mm Method : Rotary Cored		Casing Diameter 200mm to 3.70m 100mm to 11.40m	Ground Level (mOD) 52.56	Client	Job Number 8354-01-19
		Location Cornelscourt	Dates 11/02/2019- 07/03/2019	Engineer DBFL	Sheet 2/2

Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
11.40	100	53	48	11		41.16	(1.50)	Weak to medium strong coarsely crystalline whitish orange GRANITE. Partially weathered to unweathered with quartz sand on fracture surface Non intact from 9.35m - 9.90m.			
							11.40	Fracture set 1: Close to medium spaced at 30- 40 degrees, stepped rough, tight to open, stained brown. Complete at 11.40m			

Remarks Cable percussion refusal on overburden. Borehole continued with Rotary Core technique to 11.40m Below Ground Level.	Scale (approx) 1:50	Logged By PM
	Figure No. 8354-01-19.BH-07	



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Site
Cornelscourt

Borehole Number
BH-08

Machine : Dando 2000 +T44	Casing Diameter 200mm to 2.00m 100mm to 8.40m	Ground Level (mOD) 51.88	Client	Job Number 8354-01-19
Flush : Water	Location Cornelscourt	Dates 15/02/2019- 28/02/2019	Engineer DBFL	Sheet 1/1
Core Dia: HQ mm				
Method : Rotary Cored				

Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
1.00-1.30 1.00					1,2/1,1,1,1 SPT(C) 4/150 B	51.68	(0.20) 0.20	Brown slightly sandy slightly gravelly TOPSOIL.			
2.00-2.45					25/50 SPT(C) N=50	50.58	1.30	Soft brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel.			
3.00						49.88	(0.70) 2.00	Firm to stiff brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Sand is fine to coarse and gravel is fine to coarse and sub-angular to subrounded..			
3.40	88	51	51	5		48.68	3.20	Very stiff CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sand and medium to coarse sub-angular to subrounded gravel.			
3.90								Extremely weak to medium strong coarsely crystalline massive orange white GRANITE. Partially weathered to unweathered.			
5.40							(5.20)	Fracture set 1: From 3.40m - 3.90m, close to medium spaced at 30 - 45 degrees orientation, stepped rough, tight to open, stained brown.			
6.90								Fracture set 1: From 3.90m - 5.40m, close to medium spaced at 50 - 60 degrees orientation, planar rough, tight to open.			
8.40						43.48	8.40	Fracture set 1: From 5.40m - 6.90m, medium spaced at 50 - 65 degrees orientation, planar rough, tight to open.			
								Fracture set 1: From 6.90 - 8.40m, close to medium spaced at 70 degrees, planar smooth, tight to open.			
								Complete at 8.40m			

Remarks No groundwater encountered. Cable percussion refusal on overburden. Borehole continued with Rotary Core technique to 8.40m Below Ground Level.	Scale (approx)	Logged By
	1:50	PM
	Figure No. 8354-01-19.BH-08	



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Site
Cornelscourt

Borehole Number
BH-09

Machine : Dando 2000 + T 44	Casing Diameter 200mm to 2.90m 100mm to 8.00m	Ground Level (mOD) 51.24	Client	Job Number 8354-01-19
Flush : Water	Location Cornelscourt	Dates 12/02/2019- 07/03/2019	Engineer DBFL	Sheet 1/1
Core Dia: HQ mm				
Method : Rotary Cored				

Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.00-1.30 1.00					2,3/3,4,4,3 SPT(C) 14/150 B	50.84	(0.40) 0.40	Brown slightly sandy slightly gravelly TOPSOIL.		
2.00-2.45 2.00					2,4/5,5,4,4 SPT(C) N=18 B	49.24	(1.60) 2.00	Firm to stiff brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles and fine to coarse sub-angular to subrounded gravel.		
2.90	100	78	72	7		48.34	(0.90) 2.90	Stiff brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel.		
3.90						47.04	(1.30) 4.20	Weak to medium strong coarsely crystalline whitish orange GRANITE. Partially weathered from 2.90m - 4.20m.		
5.40	100	100	100	8		45.14	(1.90) 6.10	Fracture set 1: From 2.90m - 3.90m, medium spaced at 30 - 40 degrees orientation, stepped rough, tight to open. Medium strong to strong coarsely crystalline whitish grey GRANITE. Unweathered.		
6.35	93	93	93			43.24	(1.90) 8.00	Medium strong orange grey coarsely crystalline GRANITE. Partially weathered to unweathered. Fracture set 1: From 3.90m - 6.35m, close to medium spaced at 0 - 20 degrees orientation, stepped rough, tight to open.		
6.90	73	73	73	4				Fracture set 1: From 6.35m - 8.00m, close to medium spaced at 40 - 50 degrees orientation, planar rough to smooth, tight to open, quartz bands.		
8.00								Complete at 8.00m		

Remarks Cable percussion refusal on overburden. Borehole continued with Rotary Core technique to 8.00m Below Ground Level.	Scale (approx)	Logged By
	1:50	PM
	Figure No. 8354-01-19.BH-09	



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Site
Cornelscourt

Borehole Number
BH-10

Machine : Dando 2000 + T44	Casing Diameter 200mm to 2.85m 100mm to 6.90m	Ground Level (mOD) 52.41	Client	Job Number 8354-01-19
Flush : Water	Location Cornelscourt	Dates 12/02/2019- 07/03/2019	Engineer DBFL	Sheet 1/1
Core Dia: HQ mm				
Method : Rotary Cored				

Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.00-1.45 1.00					3,2/3,3,3,2 Water strike(1) at 0.90m. SPT(C) N=11 B	52.01	(0.40)	Brown slightly sandy slightly gravelly TOPSOIL.		
2.00-2.45 2.00					1,1/2,2,2,1 SPT(C) N=7 B	51.71	(0.30) 0.70	Soft to firm light brown slightly sandy slightly gravelly CLAY with rare sub-angular to subrounded cobbles. Fine to coarse sand and fine to coarse sub-angular to subrounded gravel.		V1
2.60 2.70 2.90	100	45	45	12	B	49.71 49.56	(0.15) 2.85	Firm brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel.		
3.90	100	17	17	11			(4.05)	Fracture set 1: From 2.85m - 3.90m, Close to medium spaced at 30 - 40 degrees orientation, planar rough, tight to open, stained brown.		
5.40	100	41	36	23				Fracture set 1: From 3.90m - 5.40m, close to medium spaced at 30 - 40 degrees orientation, planar rough to smooth, tight to open.		
6.90						45.51	6.90	Fracture set 1: From 5.40m to 6.90m, close to medium spaced at 30 - 45 degrees orientation, planar rough to smooth, tight to open. Complete at 6.90m		

Remarks Cable percussion refusal on overburden. Borehole continued with rotary core technique to 6.90m below ground level.	Scale (approx) 1:50	Logged By PM
Figure No. 8354-01-19.BH-10		



Ground Investigations Ireland Ltd

www.gii.ie

Site
Cornelscourt

Borehole Number
BH-11

Machine : Dando 2000 + T 44	Casing Diameter 200mm to 3.20m 100mm to 8.40m	Ground Level (mOD) 52.89	Client	Job Number 8354-01-19
Flush : Water			Engineer DBFL	Sheet 1/1
Core Dia: HQ mm	Location Cornelscourt	Dates 12/02/2019- 01/03/2019		
Method : Rotary Cored				

Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.00					B	52.69	(0.20) 0.20	Brown slightly sandy slightly gravelly TOPSOIL.			
1.00-1.30					1,1/1,1,2,2 SPT(C) 6/150	52.19	(0.50) 0.70	Soft to firm brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel.			
2.00-2.45					2,3/3,2,2,2 SPT(C) N=9 B	50.89	(1.30) 2.00	Firm brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sand with fine to coarse sub-angular to subrounded gravel.			
2.00					2,2/50 Water strike(1) at 3.00m, rose to 1.50m in 20 mins. SPT(C) 50/115 B B	49.69	3.20	Very stiff grey slightly sandy slightly gravelly CLAY with occasional sub-rounded cobbles. Gravel is fine to coarse and angular to sub angular.			
3.00						49.49	(0.20) 3.40	Greyish brown slightly sandy slightly gravelly CLAY with occasional sub-angular to subrounded cobbles. Fine to coarse sand and fine to coarse sub-angular to subrounded gravel.			
3.00-3.27	100	30	25					Weak to medium strong coarsely crystalline orange white GRANITE. Partially weathered to unweathered. Non intact from from 3.40m - 3.50m. Fracture set 1: From 3.50m - 3.84m, medium spaced at 30 - 45 degrees orientation, stepped rough, tight to open. Non intact from 3.84m - 3.90m.			
3.00				5				Fracture set 1: From 3.90m - 5.40m, close to medium spaced at 60 - 70 degrees orientation, planar rough, tight to open, stained brown.			
3.20								Extremely weak to weak coarsely crystalline pinkish brown GRANITE. Distinctly weathered. Fracture set 1: From 5.40m - 5.80m, close to medium spaced at 40 - 50 degrees orientation, planar smooth, tight to open, stained brown, quartz sand on fracture surfaces.			
3.50								Weak to medium strong coarsely crystalline pinkish brown GRANITE. Partially weathered to unweathered. Non intact from 5.80m - 6.90.			
3.84	100	74	53	10				Fracture set 1: From 6.90m - 8.40m, close to medium spaced at 50 - 60 degrees orientation, planar rough to smooth, tight to open, quartz sand on fracture surfaces.			
3.90								Complete at 8.40m			
5.40				5							
5.80	100	15	15		N.I.	47.09	5.80				
6.90						45.99	6.90				
8.40	100	26	18	12		44.49	8.40				

Remarks Cable percussion refusal on overburden. Borehole continued with rotary core technique to 8.40m below ground level. Groundwater encountered a 3.00m.	Scale (approx) 1:50	Logged By PM
Figure No. 8354-01-19.BH-11		

APPENDIX 9 – Laboratory Reports



Exova Jones Environmental

Registered Office: Exova Environmental UK Limited, 10 Lower Grosvenor Place, London, SW1W 0EN. Reg No. 11371415

Unit 3 Deeside Point
Zone 3
Deeside Industrial Park
Deeside
CH5 2UA

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

Tel: +44 (0) 1244 833780

Fax: +44 (0) 1244 833781



Attention : Barry Sexton
Date : 26th March, 2019
Your reference : 8354-01-19
Our reference : Test Report 19/4257 Batch 1
Location : Cornelscourt
Date samples received : 14th March, 2019
Status : Final report
Issue : 1

Four samples were received for analysis on 14th March, 2019 of which four 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.

Compiled By:

Lucas Halliwell
Project Co-ordinator



Exova Jones Environmental

Registered Office: Exova Environmental UK Limited, 10 Lower Grosvenor Place, London, SW1W 0EN. Reg No. 11371415

Unit 3 Deeside Point
Zone 3
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Hazelhatch Road
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Co. Dublin
Ireland

Tel: +44 (0) 1244 833780

Fax: +44 (0) 1244 833781



Attention : Barry Sexton
Date : 11th February, 2019
Your reference : 8354-01-19
Our reference : Test Report 19/1176 Batch 2
Location : Cornelscourt
Date samples received : 24th January, 2019
Status : Final report
Issue : 1

Forty two samples were received for analysis on 24th January, 2019 of which forty two 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.

Where Waste Acceptance Criteria Suite (EC Decision of 19 December 2002 (2003/33/EC)) has been requested, all analyses have been performed using the relevant EN methods where they exist.

Compiled By:

Phil Sommerton BSc

Project Manager

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

Report : Solid

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

J E Sample No.	115-117	118-120	121-123	124-126	127-129	130-132	133-135	136-138	139-141	142-144	Please see attached notes for all abbreviations and acronyms		
Sample ID	WS01	WS01	WS01	WS02	WS02	WS02	WS03	WS03	WS03	WS04			
Depth	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00			
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	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	2	2	2	2	2	2	2	2	2	2			
Date of Receipt	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	LOD/LOR	Units	Method No.
Antimony	-	-	-	-	-	-	-	-	-	-	<1	mg/kg	TM30/PM15
Arsenic #	-	-	-	-	-	-	-	-	-	-	<0.5	mg/kg	TM30/PM15
Barium #	-	-	-	-	-	-	-	-	-	-	<1	mg/kg	TM30/PM15
Cadmium #	-	-	-	-	-	-	-	-	-	-	<0.1	mg/kg	TM30/PM15
Chromium #	-	-	-	-	-	-	-	-	-	-	<0.5	mg/kg	TM30/PM15
Copper #	-	-	-	-	-	-	-	-	-	-	<1	mg/kg	TM30/PM15
Lead #	-	-	-	-	-	-	-	-	-	-	<5	mg/kg	TM30/PM15
Mercury #	-	-	-	-	-	-	-	-	-	-	<0.1	mg/kg	TM30/PM15
Molybdenum #	-	-	-	-	-	-	-	-	-	-	<0.1	mg/kg	TM30/PM15
Nickel #	-	-	-	-	-	-	-	-	-	-	<0.7	mg/kg	TM30/PM15
Selenium #	-	-	-	-	-	-	-	-	-	-	<1	mg/kg	TM30/PM15
Zinc #	-	-	-	-	-	-	-	-	-	-	<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	-	-	-	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Acenaphthylene	-	-	-	-	-	-	-	-	-	-	<0.03	mg/kg	TM4/PM8
Acenaphthene #	-	-	-	-	-	-	-	-	-	-	<0.05	mg/kg	TM4/PM8
Fluorene #	-	-	-	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Phenanthrene #	-	-	-	-	-	-	-	-	-	-	<0.03	mg/kg	TM4/PM8
Anthracene #	-	-	-	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Fluoranthene #	-	-	-	-	-	-	-	-	-	-	<0.03	mg/kg	TM4/PM8
Pyrene #	-	-	-	-	-	-	-	-	-	-	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	-	-	-	-	-	-	-	-	-	-	<0.06	mg/kg	TM4/PM8
Chrysene #	-	-	-	-	-	-	-	-	-	-	<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	-	-	-	-	-	-	-	-	-	-	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	-	-	-	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	-	-	-	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	-	-	-	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	-	-	-	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Coronene	-	-	-	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
PAH 6 Total #	-	-	-	-	-	-	-	-	-	-	<0.22	mg/kg	TM4/PM8
PAH 17 Total	-	-	-	-	-	-	-	-	-	-	<0.64	mg/kg	TM4/PM8
Benzo(b)fluoranthene	-	-	-	-	-	-	-	-	-	-	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	-	-	-	-	-	-	-	-	-	-	<0.02	mg/kg	TM4/PM8
Benzo(j)fluoranthene	-	-	-	-	-	-	-	-	-	-	<1	mg/kg	TM4/PM8
PAH Surrogate % Recovery	-	-	-	-	-	-	-	-	-	-	<0	%	TM4/PM8
Mineral Oil (C10-C40)	-	-	-	-	-	-	-	-	-	-	<30	mg/kg	TM5/PM8/PM16

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

Report : Solid

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

J E Sample No.	115-117	118-120	121-123	124-126	127-129	130-132	133-135	136-138	139-141	142-144	Please see attached notes for all abbreviations and acronyms		
Sample ID	WS01	WS01	WS01	WS02	WS02	WS02	WS03	WS03	WS03	WS04	LOD/LOR	Units	Method No.
Depth	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00			
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	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	2	2	2	2	2	2	2	2	2	2			
Date of Receipt	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019			
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	<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	<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	<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	21	<4	<4	<4	<4	<4	<4	<4	mg/kg	TMS/PM8/PM16
>C16-C21 #	<7	<7	<7	60	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>C21-C35 #	<7	<7	<7	419	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>C35-C40	<7	<7	<7	127	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
Total aliphatics C5-40	<26	<26	<26	627	<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	<0.1	mg/kg	TM36/PM12
>C10-C25	<10	<10	<10	172	<10	<10	<10	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
>C25-C35	<10	<10	<10	334	<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	<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	<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	<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	627	<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	<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	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
Benzene #	<5	<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	<5	ug/kg	TM31/PM12
Ethylbenzene #	<5	<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	<5	ug/kg	TM31/PM12
o-Xylene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
PCB 28 #	-	-	-	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 52 #	-	-	-	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 101 #	-	-	-	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 118 #	-	-	-	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 138 #	-	-	-	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 153 #	-	-	-	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 180 #	-	-	-	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
Total 7 PCBs #	-	-	-	-	-	-	-	-	-	-	<35	ug/kg	TM17/PM8

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

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

J E Sample No.	115-117	118-120	121-123	124-126	127-129	130-132	133-135	136-138	139-141	142-144	Please see attached notes for all abbreviations and acronyms		
Sample ID	WS01	WS01	WS01	WS02	WS02	WS02	WS03	WS03	WS03	WS04			
Depth	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00			
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	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	2	2	2	2	2	2	2	2	2	2			
Date of Receipt	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019			
Natural Moisture Content	13.1	13.4	15.9	51.1	13.7	13.5	17.0	15.6	15.1	22.7	<0.1	%	PM4/PM0
Moisture Content (% Wet Weight)	-	-	-	-	-	-	-	-	-	-	<0.1	%	PM4/PM0
Hexavalent Chromium #	-	-	-	-	-	-	-	-	-	-	<0.3	mg/kg	TM38/PM20
Chromium III	-	-	-	-	-	-	-	-	-	-	<0.5	mg/kg	NONE/NONE
Total Organic Carbon #	-	-	-	-	-	-	-	-	-	-	<0.02	%	TM21/PM24
pH #	-	-	-	-	-	-	-	-	-	-	<0.01	pH units	TM73/PM11
Mass of raw test portion	-	-	-	-	-	-	-	-	-	-		kg	NONE/PM17
Mass of dried test portion	-	-	-	-	-	-	-	-	-	-		kg	NONE/PM17

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

Report : Solid

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

J E Sample No.	145-147	148-150	151-153	154-156	157-159	160-162	163-165	166-168	169-171	172-174	Please see attached notes for all abbreviations and acronyms		
Sample ID	WS04	WS04	WS04	WS05	WS05	WS05	WS06	WS06	WS06	WS07			
Depth	1.00-2.00	2.00-3.00	3.00-4.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00			
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	21/01/2019	21/01/2019	21/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	2	2	2	2	2	2	2	2	2	2			
Date of Receipt	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	LOD/LOR	Units	Method No.
Antimony	2	2	<1	-	-	-	-	-	-	-	<1	mg/kg	TM30/PM15
Arsenic #	9.8	12.1	3.8	-	-	-	-	-	-	-	<0.5	mg/kg	TM30/PM15
Barium #	74	74	34	-	-	-	-	-	-	-	<1	mg/kg	TM30/PM15
Cadmium #	1.6	1.7	0.1	-	-	-	-	-	-	-	<0.1	mg/kg	TM30/PM15
Chromium #	64.5	44.3	72.0	-	-	-	-	-	-	-	<0.5	mg/kg	TM30/PM15
Copper #	29	29	6	-	-	-	-	-	-	-	<1	mg/kg	TM30/PM15
Lead #	16	20	6	-	-	-	-	-	-	-	<5	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	<0.1	mg/kg	TM30/PM15
Molybdenum #	3.7	3.6	4.1	-	-	-	-	-	-	-	<0.1	mg/kg	TM30/PM15
Nickel #	36.0	36.4	7.2	-	-	-	-	-	-	-	<0.7	mg/kg	TM30/PM15
Selenium #	<1	1	<1	-	-	-	-	-	-	-	<1	mg/kg	TM30/PM15
Zinc #	77	103	37	-	-	-	-	-	-	-	<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	<0.04	<0.04	<0.04	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	<0.03	-	-	-	-	-	-	-	<0.03	mg/kg	TM4/PM8
Acenaphthene #	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	mg/kg	TM4/PM8
Fluorene #	0.18	<0.04	<0.04	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Phenanthrene #	0.31	<0.03	<0.03	-	-	-	-	-	-	-	<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04	<0.04	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Fluoranthene #	<0.03	<0.03	<0.03	-	-	-	-	-	-	-	<0.03	mg/kg	TM4/PM8
Pyrene #	0.05	<0.03	<0.03	-	-	-	-	-	-	-	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	<0.06	<0.06	<0.06	-	-	-	-	-	-	-	<0.06	mg/kg	TM4/PM8
Chrysene #	<0.02	<0.02	<0.02	-	-	-	-	-	-	-	<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	<0.07	<0.07	<0.07	-	-	-	-	-	-	-	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	<0.04	<0.04	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	<0.04	<0.04	<0.04	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04	<0.04	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	<0.04	<0.04	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Coronene	<0.04	<0.04	<0.04	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
PAH 6 Total #	<0.22	<0.22	<0.22	PAH 6 Total #	-	-	-	-	-	-	<0.22	mg/kg	TM4/PM8
PAH 17 Total	<0.64	<0.64	<0.64	-	-	-	-	-	-	-	<0.64	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	-	-	-	-	-	-	-	<0.02	mg/kg	TM4/PM8
Benzo(j)fluoranthene	<1	<1	<1	Benzo(j)fluoranthene	-	-	-	-	-	-	<1	mg/kg	TM4/PM8
PAH Surrogate % Recovery	97	87	100	PAH Surrogate % Recovery	-	-	-	-	-	-	<0	%	TM4/PM8
Mineral Oil (C10-C40)	673	<30	<30	-	-	-	-	-	-	-	<30	mg/kg	TM5/PM8/PM16

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

Report : Solid

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

J E Sample No.	145-147	148-150	151-153	154-156	157-159	160-162	163-165	166-168	169-171	172-174	Please see attached notes for all abbreviations and acronyms		
Sample ID	WS04	WS04	WS04	WS05	WS05	WS05	WS06	WS06	WS06	WS07			
Depth	1.00-2.00	2.00-3.00	3.00-4.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00			
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	21/01/2019	21/01/2019	21/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	2	2	2	2	2	2	2	2	2	2			
Date of Receipt	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	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 ^{SV}	<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1	<0.1	0.8	<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	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>C10-C12 #	73.2	<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 #	221	<4	12	<4	<4	<4	<4	<4	<4	<4	<4	mg/kg	TMS/PM8/PM16
>C16-C21 #	265	<7	10	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>C21-C35 #	114	<7	<7	<7	<7	<7	<7	<7	109	60	<7	mg/kg	TMS/PM8/PM16
>C35-C40	<7	<7	<7	<7	<7	<7	<7	<7	13	<7	<7	mg/kg	TMS/PM8/PM16
Total aliphatics C5-40	673	<26	<26	<26	<26	<26	<26	<26	122	60	<26	mg/kg	TMS/PM8/PM16
>C6-C10	<0.1	<0.1	1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>C10-C25	673	<10	25	<10	<10	<10	<10	<10	29	<10	<10	mg/kg	TMS/PM8/PM16
>C25-C35	16	<10	<10	<10	<10	<10	<10	<10	86	54	<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 ^{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	<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	<0.1	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	8.2	<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 #	92	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	mg/kg	TMS/PM8/PM16
>EC16-EC21 #	164	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>EC21-EC35 #	74	<7	<7	<7	<7	<7	<7	<7	<7	78	<7	mg/kg	TMS/PM8/PM16
>EC35-EC40	<7	<7	<7	<7	<7	<7	<7	<7	<7	16	<7	mg/kg	TMS/PM8/PM16
Total aromatics C5-40	338	<26	<26	<26	<26	<26	<26	<26	<26	94	<26	mg/kg	TMS/PM8/PM16
Total aliphatics and aromatics(C5-40)	1011	<52	<52	<52	<52	<52	<52	<52	122	154	<52	mg/kg	TMS/PM8/PM16
>EC6-EC10 #	<0.1	<0.1	<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	343	<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	71	<10	mg/kg	TMS/PM8/PM16
MTBE #	<5	15	79	<5	<5	<5	<5	<5	<5	<5 ^{SV}	<5	ug/kg	TM31/PM12
Benzene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5 ^{SV}	<5	ug/kg	TM31/PM12
Toluene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5 ^{SV}	<5	ug/kg	TM31/PM12
Ethylbenzene #	<5	<5	17	<5	<5	<5	<5	<5	<5	<5 ^{SV}	<5	ug/kg	TM31/PM12
m/p-Xylene #	<5	<5	17	<5	<5	<5	<5	<5	<5	<5 ^{SV}	<5	ug/kg	TM31/PM12
o-Xylene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5 ^{SV}	<5	ug/kg	TM31/PM12
PCB 28 #	<5	<5	<5	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 52 #	<5	<5	<5	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 101 #	<5	<5	<5	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 118 #	<5	<5	<5	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 138 #	<5	<5	<5	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 153 #	<5	<5	<5	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 180 #	<5	<5	<5	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
Total 7 PCBs #	<35	<35	<35	-	-	-	-	-	-	-	<35	ug/kg	TM17/PM8

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

Report : Solid

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

J E Sample No.	145-147	148-150	151-153	154-156	157-159	160-162	163-165	166-168	169-171	172-174	Please see attached notes for all abbreviations and acronyms		
Sample ID	WS04	WS04	WS04	WS05	WS05	WS05	WS06	WS06	WS06	WS07			
Depth	1.00-2.00	2.00-3.00	3.00-4.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00			
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	21/01/2019	21/01/2019	21/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	2	2	2	2	2	2	2	2	2	2			
Date of Receipt	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	LOD/LOR	Units	Method No.
Natural Moisture Content	13.8	13.3	8.2	19.8	14.4	14.6	15.4	18.9	15.0	23.1	<0.1	%	PM4/PM0
Moisture Content (% Wet Weight)	12.1	11.8	7.6	-	-	-	-	-	-	-	<0.1	%	PM4/PM0
Hexavalent Chromium #	<0.3	<0.3	<0.3	-	-	-	-	-	-	-	<0.3	mg/kg	TM38/PM20
Chromium III	64.5	44.3	72.0	-	-	-	-	-	-	-	<0.5	mg/kg	NONE/NONE
Total Organic Carbon #	0.34	0.26	0.14	-	-	-	-	-	-	-	<0.02	%	TM21/PM24
pH #	8.57	8.61	9.20	-	-	-	-	-	-	-	<0.01	pH units	TM73/PM11
Mass of raw test portion	0.1029	0.1046	0.097	-	-	-	-	-	-	-		kg	NONE/PM17
Mass of dried test portion	0.09	0.09	0.09	-	-	-	-	-	-	-		kg	NONE/PM17

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

Report : Solid

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

J E Sample No.	175-177	178-180	181-183	184-186	187-189	190-192	193-195	196-198	199-201	202-204	Please see attached notes for all abbreviations and acronyms		
Sample ID	WS07	WS07	WS07	WS08	WS08	WS08	WS09	WS09	WS09	WS10	LOD/LOR	Units	Method No.
Depth	1.00-2.00	2.00-3.00	3.00-4.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00			
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	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	21/01/2019			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	2	2	2	2	2	2	2	2	2	2			
Date of Receipt	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019			
Antimony	2	2	1	-	2	2	-	-	-	-	<1	mg/kg	TM30/PM15
Arsenic #	11.3	8.4	7.8	-	10.0	9.8	-	-	-	-	<0.5	mg/kg	TM30/PM15
Barium #	67	61	48	-	51	70	-	-	-	-	<1	mg/kg	TM30/PM15
Cadmium #	2.1	1.7	1.3	-	1.8	1.6	-	-	-	-	<0.1	mg/kg	TM30/PM15
Chromium #	48.0	54.9	67.5	-	52.9	59.8	-	-	-	-	<0.5	mg/kg	TM30/PM15
Copper #	35	28	17	-	21	27	-	-	-	-	<1	mg/kg	TM30/PM15
Lead #	18	16	12	-	14	18	-	-	-	-	<5	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1	<0.1	-	<0.1	<0.1	-	-	-	-	<0.1	mg/kg	TM30/PM15
Molybdenum #	4.0	3.2	3.1	-	3.3	3.6	-	-	-	-	<0.1	mg/kg	TM30/PM15
Nickel #	43.2	34.8	27.6	-	26.4	33.4	-	-	-	-	<0.7	mg/kg	TM30/PM15
Selenium #	2	<1	<1	-	<1	<1	-	-	-	-	<1	mg/kg	TM30/PM15
Zinc #	106	76	66	-	76	80	-	-	-	-	<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	<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	0.08	-	-	-	-	<0.03	mg/kg	TM4/PM8
Acenaphthene #	<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	0.14	-	-	-	-	<0.04	mg/kg	TM4/PM8
Phenanthrene #	<0.03	<0.03	<0.03	-	<0.03	0.27	-	-	-	-	<0.03	mg/kg	TM4/PM8
Anthracene #	<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	mg/kg	TM4/PM8
Pyrene #	<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	mg/kg	TM4/PM8
Chrysene #	<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	mg/kg	TM4/PM8
Benzo(a)pyrene #	<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	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<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	mg/kg	TM4/PM8
Coronene	<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	PAH 6 Total	<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	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<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	mg/kg	TM4/PM8
Benzo(j)fluoranthene	<1	<1	<1	-	<1	<1	-	-	-	-	<1	mg/kg	TM4/PM8
PAH Surrogate % Recovery	98	91	99	PAH Surrogate	95	98	-	-	-	-	<0	%	TM4/PM8
Mineral Oil (C10-C40)	<30	143	<30	-	<30	447	-	-	-	-	<30	mg/kg	TM5/PM8/PM16

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

Report : Solid

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

J E Sample No.	175-177	178-180	181-183	184-186	187-189	190-192	193-195	196-198	199-201	202-204	Please see attached notes for all abbreviations and acronyms		
Sample ID	WS07	WS07	WS07	WS08	WS08	WS08	WS09	WS09	WS09	WS10			
Depth	1.00-2.00	2.00-3.00	3.00-4.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00			
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	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	21/01/2019			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	2	2	2	2	2	2	2	2	2	2			
Date of Receipt	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	LOD/LOR	Units	Method No.
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1	0.6	1.7	<0.1	<0.1	1.3	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1	2.1	4.1	0.5	<0.1	6.5	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1	2.4	2.9	0.4	<0.1	8.9	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2	35.9	<0.2	<0.2	<0.2	89.0	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TMS/PM8/PM16
>C12-C16 #	<4	49	<4	<4	<4	160	<4	<4	<4	<4	<4	mg/kg	TMS/PM8/PM16
>C16-C21 #	<7	48	<7	<7	<7	152	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>C21-C35 #	<7	10	<7	<7	<7	46	<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	148	<26	<26	<26	464	<26	<26	<26	<26	<26	mg/kg	TMS/PM8/PM16
>C6-C10	<0.1	4.5	7.0	0.9	<0.1	15.4	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C10-C25	<10	160	<10	<10	<10	447	<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	<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	<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1	0.6	0.3	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2	17.0	<0.2	<0.2	<0.2	61.8	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TMS/PM8/PM16
>EC12-EC16 #	<4	23	<4	<4	<4	98	<4	<4	<4	<4	<4	mg/kg	TMS/PM8/PM16
>EC16-EC21 #	<7	22	<7	<7	<7	106	<7	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>EC21-EC35 #	<7	<7	<7	<7	<7	31	<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	63	<26	<26	<26	297	<26	<26	<26	<26	<26	mg/kg	TMS/PM8/PM16
Total aliphatics and aromatics(C5-40)	<52	211	<52	<52	<52	761	<52	<52	<52	<52	<52	mg/kg	TMS/PM8/PM16
>EC6-EC10 #	<0.1	0.6	0.3	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC10-EC25	<10	68	<10	<10	<10	280	<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	261	798	41	<5	755	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
Benzene #	<5	<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	<5	ug/kg	TM31/PM12
Ethylbenzene #	<5	100	80	10	<5	49	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
m/p-Xylene #	<5	441	257	21	8	209	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
o-Xylene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
PCB 28 #	<5	<5	<5	-	<5	<5	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 52 #	<5	<5	<5	-	<5	<5	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 101 #	<5	<5	<5	-	<5	<5	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 118 #	<5	<5	<5	-	<5	<5	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 138 #	<5	<5	<5	-	<5	<5	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 153 #	<5	<5	<5	-	<5	<5	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 180 #	<5	<5	<5	-	<5	<5	-	-	-	-	<5	ug/kg	TM17/PM8
Total 7 PCBs #	<35	<35	<35	-	<35	<35	-	-	-	-	<35	ug/kg	TM17/PM8

Client Name: Ground Investigations Ireland
 Reference: 8354-01-19
 Location: Cornelscourt
 Contact: Barry Sexton
 JE Job No.: 19/1176

Report : Solid

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

J E Sample No.	175-177	178-180	181-183	184-186	187-189	190-192	193-195	196-198	199-201	202-204	Please see attached notes for all abbreviations and acronyms		
Sample ID	WS07	WS07	WS07	WS08	WS08	WS08	WS09	WS09	WS09	WS10			
Depth	1.00-2.00	2.00-3.00	3.00-4.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00			
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	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	21/01/2019			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	2	2	2	2	2	2	2	2	2	2			
Date of Receipt	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	LOD/LOR	Units	Method No.
Natural Moisture Content	18.3	14.6	10.7	19.3	17.4	14.4	13.7	14.2	14.0	23.7	<0.1	%	PM4/PM0
Moisture Content (% Wet Weight)	15.4	12.7	9.7	-	14.8	12.6	-	-	-	-	<0.1	%	PM4/PM0
Hexavalent Chromium #	<0.3	<0.3	<0.3	-	<0.3	<0.3	-	-	-	-	<0.3	mg/kg	TM38/PM20
Chromium III	48.0	54.9	67.5	-	52.9	59.8	-	-	-	-	<0.5	mg/kg	NONE/NONE
Total Organic Carbon #	0.38	0.26	0.19	-	0.25	0.29	-	-	-	-	<0.02	%	TM21/PM24
pH #	8.69	7.69	8.44	-	8.66	8.23	-	-	-	-	<0.01	pH units	TM73/PM11
Mass of raw test portion	0.1046	0.1027	0.0988	-	0.1008	0.102	-	-	-	-		kg	NONE/PM17
Mass of dried test portion	0.09	0.09	0.09	-	0.09	0.09	-	-	-	-		kg	NONE/PM17

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

Report : Solid

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

J E Sample No.	205-207	208-210	211-213	214-216	217-219	220-222	223-225	226-228	229-231	232-234	Please see attached notes for all abbreviations and acronyms		
Sample ID	WS10	WS10	WS10	WS11	WS11	WS11	WS12	WS12	WS12	WS13			
Depth	1.00-2.00	2.00-3.00	3.00-4.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00			
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	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	2	2	2	2	2	2	2	2	2	2			
Date of Receipt	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	LOD/LOR	Units	Method No.
Antimony	-	2	2	-	-	-	-	-	-	-	<1	mg/kg	TM30/PM15
Arsenic #	-	12.1	10.1	-	-	-	-	-	-	-	<0.5	mg/kg	TM30/PM15
Barium #	-	74	66	-	-	-	-	-	-	-	<1	mg/kg	TM30/PM15
Cadmium #	-	2.1	1.9	-	-	-	-	-	-	-	<0.1	mg/kg	TM30/PM15
Chromium #	-	50.8	51.2	-	-	-	-	-	-	-	<0.5	mg/kg	TM30/PM15
Copper #	-	37	29	-	-	-	-	-	-	-	<1	mg/kg	TM30/PM15
Lead #	-	21	21	-	-	-	-	-	-	-	<5	mg/kg	TM30/PM15
Mercury #	-	<0.1	<0.1	-	-	-	-	-	-	-	<0.1	mg/kg	TM30/PM15
Molybdenum #	-	4.8	4.2	-	-	-	-	-	-	-	<0.1	mg/kg	TM30/PM15
Nickel #	-	47.8	37.7	-	-	-	-	-	-	-	<0.7	mg/kg	TM30/PM15
Selenium #	-	1	1	-	-	-	-	-	-	-	<1	mg/kg	TM30/PM15
Zinc #	-	104	83	-	-	-	-	-	-	-	<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	-	<0.04	<0.04	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Acenaphthylene	-	<0.03	<0.03	-	-	-	-	-	-	-	<0.03	mg/kg	TM4/PM8
Acenaphthene #	-	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	mg/kg	TM4/PM8
Fluorene #	-	<0.04	<0.04	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Phenanthrene #	-	<0.03	<0.03	-	-	-	-	-	-	-	<0.03	mg/kg	TM4/PM8
Anthracene #	-	<0.04	<0.04	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Fluoranthene #	-	<0.03	<0.03	-	-	-	-	-	-	-	<0.03	mg/kg	TM4/PM8
Pyrene #	-	<0.03	<0.03	-	-	-	-	-	-	-	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	-	<0.06	<0.06	-	-	-	-	-	-	-	<0.06	mg/kg	TM4/PM8
Chrysene #	-	<0.02	<0.02	-	-	-	-	-	-	-	<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	-	<0.07	<0.07	-	-	-	-	-	-	-	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	-	<0.04	<0.04	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	-	<0.04	<0.04	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	-	<0.04	<0.04	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	-	<0.04	<0.04	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
Coronene	-	<0.04	<0.04	-	-	-	-	-	-	-	<0.04	mg/kg	TM4/PM8
PAH 6 Total #	-	<0.22	<0.22	-	-	-	-	-	-	-	<0.22	mg/kg	TM4/PM8
PAH 17 Total	-	<0.64	<0.64	-	-	-	-	-	-	-	<0.64	mg/kg	TM4/PM8
Benzo(b)fluoranthene	-	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	-	<0.02	<0.02	-	-	-	-	-	-	-	<0.02	mg/kg	TM4/PM8
Benzo(j)fluoranthene	-	<1	<1	-	-	-	-	-	-	-	<1	mg/kg	TM4/PM8
PAH Surrogate % Recovery	-	95	93	-	-	-	-	-	-	-	<0	%	TM4/PM8
Mineral Oil (C10-C40)	-	<30	100	-	-	-	-	-	-	-	<30	mg/kg	TM5/PM8/PM16

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

Report : Solid

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

J E Sample No.	205-207	208-210	211-213	214-216	217-219	220-222	223-225	226-228	229-231	232-234	Please see attached notes for all abbreviations and acronyms		
Sample ID	WS10	WS10	WS10	WS11	WS11	WS11	WS12	WS12	WS12	WS13			
Depth	1.00-2.00	2.00-3.00	3.00-4.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00			
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	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	2	2	2	2	2	2	2	2	2	2			
Date of Receipt	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	LOD/LOR	Units	Method No.
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1	<0.1	<0.1	<0.1	10.4	13.9	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1	<0.1	0.1	<0.1	33.4	63.5 ⁺⁺	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1	0.5	<0.1	<0.1	34.1 ⁺⁺	59.8 ⁺⁺	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2	<0.2	15.2	<0.2	203.9	349.0	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TMS/IPM8/PM16
>C12-C16 #	<4	<4	45	<4	365	613	<4	<4	<4	<4	<4	mg/kg	TMS/IPM8/PM16
>C16-C21 #	<7	<7	40	<7	364	642	<7	<7	<7	<7	<7	mg/kg	TMS/IPM8/PM16
>C21-C35 #	<7	<7	<7	<7	115	220	<7	<7	<7	<7	<7	mg/kg	TMS/IPM8/PM16
>C35-C40	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/IPM8/PM16
Total aliphatics C5-40	<26	<26	100	<26	1126	1961	<26	<26	<26	<26	<26	mg/kg	TMS/IPM8/PM16
>C6-C10	<0.1	0.5	0.1	<0.1	67.5	123.3	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C10-C25	<10	<10	104	<10	1027	1758	<10	<10	<10	<10	<10	mg/kg	TMS/IPM8/PM16
>C25-C35	<10	<10	<10	<10	<10	21	<10	<10	<10	<10	<10	mg/kg	TMS/IPM8/PM16
Aromatics													
>C5-EC7 #	<0.1	<0.1	<0.1	<0.1	0.2	0.3	<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	<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1	<0.1	<0.1	<0.1	13.7 ⁺⁺	30.1 ⁺⁺	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2	<0.2	4.2	<0.2	132.2	231.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TMS/IPM8/PM16
>EC12-EC16 #	<4	<4	26	<4	190	325	<4	<4	<4	<4	<4	mg/kg	TMS/IPM8/PM16
>EC16-EC21 #	<7	<7	39	<7	229	384	<7	<7	<7	<7	<7	mg/kg	TMS/IPM8/PM16
>EC21-EC35 #	<7	<7	11	<7	92	132	<7	<7	<7	<7	<7	mg/kg	TMS/IPM8/PM16
>EC35-EC40	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TMS/IPM8/PM16
Total aromatics C5-40	<26	<26	80	<26	657	1103	<26	<26	<26	<26	<26	mg/kg	TMS/IPM8/PM16
Total aliphatics and aromatics(C5-40)	<52	<52	180	<52	1783	3064	<52	<52	<52	<52	<52	mg/kg	TMS/IPM8/PM16
>EC6-EC10 #	<0.1	<0.1	<0.1	<0.1	13.9	30.4	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC10-EC25	<10	<10	70	<10	630	1068	<10	<10	<10	<10	<10	mg/kg	TMS/IPM8/PM16
>EC25-EC35	<10	<10	<10	<10	13	16	<10	<10	<10	<10	<10	mg/kg	TMS/IPM8/PM16
MTBE #	<5	<5	<5	<5	2907	5007	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
Benzene #	<5	<5	<5	<5	282	395	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
Toluene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
Ethylbenzene #	<5	<5	<5	<5	3397	8582	<5	<5	<5	7	<5	ug/kg	TM31/PM12
m/p-Xylene #	<5	<5	7	<5	10263	21432	11	11	<5	13	<5	ug/kg	TM31/PM12
o-Xylene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
PCB 28 #	-	<5	<5	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 52 #	-	<5	<5	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 101 #	-	<5	<5	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 118 #	-	<5	<5	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 138 #	-	<5	<5	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 153 #	-	<5	<5	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 180 #	-	<5	<5	-	-	-	-	-	-	-	<5	ug/kg	TM17/PM8
Total 7 PCBs #	-	<35	<35	-	-	-	-	-	-	-	<35	ug/kg	TM17/PM8

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

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

J E Sample No.	205-207	208-210	211-213	214-216	217-219	220-222	223-225	226-228	229-231	232-234	Please see attached notes for all abbreviations and acronyms		
Sample ID	WS10	WS10	WS10	WS11	WS11	WS11	WS12	WS12	WS12	WS13			
Depth	1.00-2.00	2.00-3.00	3.00-4.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00			
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	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	2	2	2	2	2	2	2	2	2	2			
Date of Receipt	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019			
Natural Moisture Content	14.5	15.3	13.4	20.9	14.0	15.6	20.6	12.8	14.1	10.9	<0.1	%	PM4/PM0
Moisture Content (% Wet Weight)	-	13.3	11.8	-	-	-	-	-	-	-	<0.1	%	PM4/PM0
Hexavalent Chromium #	-	<0.3	<0.3	-	-	-	-	-	-	-	<0.3	mg/kg	TM38/PM20
Chromium III	-	50.8	51.2	-	-	-	-	-	-	-	<0.5	mg/kg	NONE/NONE
Total Organic Carbon #	-	0.34	0.26	-	-	-	-	-	-	-	<0.02	%	TM21/PM24
pH #	-	8.18	8.19	-	-	-	-	-	-	-	<0.01	pH units	TM73/PM11
Mass of raw test portion	-	0.1062	0.1024	-	-	-	-	-	-	-		kg	NONE/PM17
Mass of dried test portion	-	0.09	0.09	-	-	-	-	-	-	-		kg	NONE/PM17

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

Report : Solid

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

J E Sample No.	235-237	238-240											Please see attached notes for all abbreviations and acronyms					
													Sample ID	Depth	COC No / misc	Containers	Sample Date	Sample Type
	WS13	WS13																
	1.00-2.00	2.00-3.00																
	V J T	V J T																
	22/01/2019	22/01/2019																
	Soil	Soil																
	2	2																
	24/01/2019	24/01/2019																
Antimony	-	-												<1	mg/kg	TM30/PM15		
Arsenic #	-	-												<0.5	mg/kg	TM30/PM15		
Barium #	-	-												<1	mg/kg	TM30/PM15		
Cadmium #	-	-												<0.1	mg/kg	TM30/PM15		
Chromium #	-	-												<0.5	mg/kg	TM30/PM15		
Copper #	-	-												<1	mg/kg	TM30/PM15		
Lead #	-	-												<5	mg/kg	TM30/PM15		
Mercury #	-	-												<0.1	mg/kg	TM30/PM15		
Molybdenum #	-	-												<0.1	mg/kg	TM30/PM15		
Nickel #	-	-												<0.7	mg/kg	TM30/PM15		
Selenium #	-	-												<1	mg/kg	TM30/PM15		
Zinc #	-	-												<5	mg/kg	TM30/PM15		
PAH MS																		
Naphthalene #	-	-												<0.04	mg/kg	TM4/PM8		
Acenaphthylene	-	-												<0.03	mg/kg	TM4/PM8		
Acenaphthene #	-	-												<0.05	mg/kg	TM4/PM8		
Fluorene #	-	-												<0.04	mg/kg	TM4/PM8		
Phenanthrene #	-	-												<0.03	mg/kg	TM4/PM8		
Anthracene #	-	-												<0.04	mg/kg	TM4/PM8		
Fluoranthene #	-	-												<0.03	mg/kg	TM4/PM8		
Pyrene #	-	-												<0.03	mg/kg	TM4/PM8		
Benzo(a)anthracene #	-	-												<0.06	mg/kg	TM4/PM8		
Chrysene #	-	-												<0.02	mg/kg	TM4/PM8		
Benzo(bk)fluoranthene #	-	-												<0.07	mg/kg	TM4/PM8		
Benzo(a)pyrene #	-	-												<0.04	mg/kg	TM4/PM8		
Indeno(123cd)pyrene #	-	-												<0.04	mg/kg	TM4/PM8		
Dibenzo(ah)anthracene #	-	-												<0.04	mg/kg	TM4/PM8		
Benzo(ghi)perylene #	-	-												<0.04	mg/kg	TM4/PM8		
Coronene	-	-												<0.04	mg/kg	TM4/PM8		
PAH 6 Total #	-	-												<0.22	mg/kg	TM4/PM8		
PAH 17 Total	-	-												<0.64	mg/kg	TM4/PM8		
Benzo(b)fluoranthene	-	-												<0.05	mg/kg	TM4/PM8		
Benzo(k)fluoranthene	-	-												<0.02	mg/kg	TM4/PM8		
Benzo(j)fluoranthene	-	-												<1	mg/kg	TM4/PM8		
PAH Surrogate % Recovery	-	-												<0	%	TM4/PM8		
Mineral Oil (C10-C40)	-	-												<30	mg/kg	TM5/PM8/PM16		

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

Report : Solid

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

J E Sample No.	235-237	238-240														LOD/LOR	Units	Method No.
Sample ID	WS13	WS13																
Depth	1.00-2.00	2.00-3.00																
COC No / misc																		
Containers	V J T	V J T																
Sample Date	22/01/2019	22/01/2019																
Sample Type	Soil	Soil																
Batch Number	2	2																
Date of Receipt	24/01/2019	24/01/2019																
Please see attached notes for all abbreviations and acronyms																		
TPH CWG																		
Aliphatics																		
>C5-C6 #	<0.1	<0.1														<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1	<0.1														<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1	<0.1														<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2	<0.2														<0.2	mg/kg	TMS/PM8/PM16
>C12-C16 #	<4	<4														<4	mg/kg	TMS/PM8/PM16
>C16-C21 #	<7	<7														<7	mg/kg	TMS/PM8/PM16
>C21-C35 #	<7	<7														<7	mg/kg	TMS/PM8/PM16
>C35-C40	<7	<7														<7	mg/kg	TMS/PM8/PM16
Total aliphatics C5-40	<26	<26														<26	mg/kg	TMS/PM8/PM16
>C6-C10	<0.1	<0.1														<0.1	mg/kg	TM36/PM12
>C10-C25	<10	<10														<10	mg/kg	TMS/PM8/PM16
>C25-C35	<10	<10														<10	mg/kg	TMS/PM8/PM16
Aromatics																		
>C5-EC7 #	<0.1	<0.1														<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1	<0.1														<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1	<0.1														<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2	<0.2														<0.2	mg/kg	TMS/PM8/PM16
>EC12-EC16 #	<4	<4														<4	mg/kg	TMS/PM8/PM16
>EC16-EC21 #	<7	<7														<7	mg/kg	TMS/PM8/PM16
>EC21-EC35 #	<7	<7														<7	mg/kg	TMS/PM8/PM16
>EC35-EC40	<7	<7														<7	mg/kg	TMS/PM8/PM16
Total aromatics C5-40	<26	<26														<26	mg/kg	TMS/PM8/PM16
Total aliphatics and aromatics(C5-40)	<52	<52														<52	mg/kg	TMS/PM8/PM16
>EC6-EC10 #	<0.1	<0.1														<0.1	mg/kg	TM36/PM12
>EC10-EC25	<10	<10														<10	mg/kg	TMS/PM8/PM16
>EC25-EC35	<10	<10														<10	mg/kg	TMS/PM8/PM16
MTBE #	<5	<5														<5	ug/kg	TM31/PM12
Benzene #	<5	<5														<5	ug/kg	TM31/PM12
Toluene #	<5	<5														<5	ug/kg	TM31/PM12
Ethylbenzene #	<5	<5														<5	ug/kg	TM31/PM12
m/p-Xylene #	<5	<5														<5	ug/kg	TM31/PM12
o-Xylene #	<5	<5														<5	ug/kg	TM31/PM12
PCB 28 #	-	-														<5	ug/kg	TM17/PM8
PCB 52 #	-	-														<5	ug/kg	TM17/PM8
PCB 101 #	-	-														<5	ug/kg	TM17/PM8
PCB 118 #	-	-														<5	ug/kg	TM17/PM8
PCB 138 #	-	-														<5	ug/kg	TM17/PM8
PCB 153 #	-	-														<5	ug/kg	TM17/PM8
PCB 180 #	-	-														<5	ug/kg	TM17/PM8
Total 7 PCBs #	-	-														<35	ug/kg	TM17/PM8

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

Report : CEN 10:1 1 Batch

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

J E Sample No.	145-147	148-150	151-153	175-177	178-180	181-183	187-189	190-192	208-210	211-213	Please see attached notes for all abbreviations and acronyms		
Sample ID	WS04	WS04	WS04	WS07	WS07	WS07	WS08	WS08	WS10	WS10	LOD/LOR	Units	Method No.
Depth	1.00-2.00	2.00-3.00	3.00-4.00	1.00-2.00	2.00-3.00	3.00-4.00	1.00-2.00	2.00-3.00	2.00-3.00	3.00-4.00			
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	21/01/2019	21/01/2019	21/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	21/01/2019	21/01/2019			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	2	2	2	2	2	2	2	2	2	2			
Date of Receipt	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019			
Dissolved Antimony #	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.004	<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	0.04	<0.02	mg/kg	TM30/PM17
Dissolved Arsenic #	<0.0025	<0.0025	0.0042	<0.0025	0.0029	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	mg/l	TM30/PM17
Dissolved Arsenic (A10) #	<0.025	<0.025	0.042	<0.025	0.029	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	mg/kg	TM30/PM17
Dissolved Barium #	0.012	0.033	<0.003	0.004	0.046	0.011	<0.003	0.027	0.041	0.046	<0.003	mg/l	TM30/PM17
Dissolved Barium (A10) #	0.12	0.33	<0.03	0.04	0.46	0.11	<0.03	0.27	0.41	0.46	<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 #	0.008	0.012	0.002	0.008	0.013	0.011	0.008	0.017	0.013	0.013	<0.002	mg/l	TM30/PM17
Dissolved Molybdenum (A10) #	0.08	0.12	<0.02	0.08	0.13	0.11	0.08	0.17	0.13	0.13	<0.02	mg/kg	TM30/PM17
Dissolved Nickel #	0.003	<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) #	0.03	<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 #	<0.003	<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	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	mg/l	TM173/PM0
Fluoride	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	mg/kg	TM173/PM0
Sulphate as SO4 #	1.3	<0.5	<0.5	1.8	1.0	1.0	<0.5	3.7	7.8	4.1	<0.5	mg/l	TM38/PM0
Sulphate as SO4 #	13	<5	<5	18	10	10	<5	37	78	41	<5	mg/kg	TM38/PM0
Chloride #	0.8	0.9	0.5	<0.3	2.2	0.8	<0.3	4.6	3.9	2.9	<0.3	mg/l	TM38/PM0
Chloride #	8	9	5	<3	22	8	<3	46	39	29	<3	mg/kg	TM38/PM0
Dissolved Organic Carbon	2	<2	<2	<2	3	<2	<2	<2	<2	<2	<2	mg/l	TM60/PM0
Dissolved Organic Carbon	20	<20	<20	<20	30	<20	<20	<20	<20	<20	<20	mg/kg	TM60/PM0
pH	8.04	8.28	8.32	8.05	8.23	8.23	7.96	8.22	8.24	8.23	<0.01	pH units	TM73/PM0
Total Dissolved Solids #	123	221	148	183	155	153	92	106	107	222	<35	mg/l	TM20/PM0
Total Dissolved Solids #	1230	2209	1479	1830	1550	1530	920	1060	1070	2221	<350	mg/kg	TM20/PM0

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

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

J E Sample No.	145-147	148-150	151-153	175-177	178-180	181-183	187-189	190-192	208-210	211-213						
Sample ID	WS04	WS04	WS04	WS07	WS07	WS07	WS08	WS08	WS10	WS10						
Depth	1.00-2.00	2.00-3.00	3.00-4.00	1.00-2.00	2.00-3.00	3.00-4.00	1.00-2.00	2.00-3.00	2.00-3.00	3.00-4.00						
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	21/01/2019	21/01/2019	21/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	21/01/2019	21/01/2019						
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil						
Batch Number	2	2	2	2	2	2	2	2	2	2						
Date of Receipt	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	Inert	Stable Non-reactive	Hazardous	LOD LOR	Units	Method No.
Solid Waste Analysis																
Total Organic Carbon #	0.34	0.26	0.14	0.38	0.26	0.19	0.25	0.29	0.34	0.26	3	5	6	<0.02	%	TM21/PM24
Sum of BTEX	<0.025	<0.025	0.034	<0.025	0.541	0.337	<0.025	0.258	<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	<0.035	1	-	-	<0.035	mg/kg	TM17/PM8
Mineral Oil	673	<30	<30	<30	143	<30	<30	447	<30	100	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	0.042	<0.025	0.029	<0.025	<0.025	<0.025	<0.025	<0.025	0.5	2	25	<0.025	mg/kg	TM30/PM17
Barium #	0.12	0.33	<0.03	0.04	0.46	0.11	<0.03	0.27	0.41	0.46	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/PM17
Molybdenum #	0.08	0.12	<0.02	0.08	0.13	0.11	0.08	0.17	0.13	0.13	0.5	10	30	<0.02	mg/kg	TM30/PM17
Nickel #	0.03	<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	0.04	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 #	<0.03	<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 #	1230	2209	1479	1830	1550	1530	920	1060	1070	2221	4000	60000	100000	<350	mg/kg	TM20/PM0
Dissolved Organic Carbon	20	<20	<20	<20	30	<20	<20	<20	<20	<20	500	800	1000	<20	mg/kg	TM60/PM0
Mass of raw test portion	0.1029	0.1046	0.097	0.1046	0.1027	0.0988	0.1008	0.102	0.1062	0.1024	-	-	-		kg	NONE/PM17
Dry Matter Content Ratio	87.2	86.0	92.3	85.9	87.3	90.8	88.9	88.1	84.4	87.9	-	-	-	<0.1	%	NONE/PM4
Leachant Volume	0.887	0.885	0.892	0.885	0.887	0.891	0.889	0.888	0.883	0.888	-	-	-		l	NONE/PM17
Eluate Volume	0.6	0.63	0.8	0.62	0.61	0.75	0.81	0.65	0.59	0.58	-	-	-		l	NONE/PM17
pH #	8.57	8.61	9.20	8.69	7.69	8.44	8.66	8.23	8.18	8.19	-	-	-	<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	<3	<3	<3	<3	<3	-	-	-	<3	mg/kg	TM173/PM0
Sulphate as SO4 #	13	<5	<5	18	10	10	<5	37	78	41	1000	20000	50000	<5	mg/kg	TM38/PM0
Chloride #	8	9	5	<3	22	8	<3	46	39	29	800	15000	25000	<3	mg/kg	TM38/PM0

Please see attached notes for all abbreviations and acronyms

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton

Matrix : Solid

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	EPH Interpretation
19/1176	2	WS01	0.00-1.00	115-117	No interpretation possible
19/1176	2	WS01	1.00-2.00	118-120	No interpretation possible
19/1176	2	WS01	2.00-3.00	121-123	No interpretation possible
19/1176	2	WS02	0.00-1.00	124-126	PAH's & Tarmac/Bitumen
19/1176	2	WS02	1.00-2.00	127-129	No interpretation possible
19/1176	2	WS02	2.00-3.00	130-132	No interpretation possible
19/1176	2	WS03	0.00-1.00	133-135	No interpretation possible
19/1176	2	WS03	1.00-2.00	136-138	No interpretation possible
19/1176	2	WS03	2.00-3.00	139-141	No interpretation possible
19/1176	2	WS04	0.00-1.00	142-144	No interpretation possible
19/1176	2	WS04	1.00-2.00	145-147	Degraded diesel
19/1176	2	WS04	2.00-3.00	148-150	No interpretation possible
19/1176	2	WS04	3.00-4.00	151-153	No interpretation possible
19/1176	2	WS05	0.00-1.00	154-156	No interpretation possible
19/1176	2	WS05	1.00-2.00	157-159	No interpretation possible
19/1176	2	WS05	2.00-3.00	160-162	No interpretation possible
19/1176	2	WS06	0.00-1.00	163-165	No interpretation possible
19/1176	2	WS06	1.00-2.00	166-168	No interpretation possible
19/1176	2	WS06	2.00-3.00	169-171	Possible PAH's & Trace lubricating Oil
19/1176	2	WS07	0.00-1.00	172-174	Possible PAH's & lubricating Oil
19/1176	2	WS07	1.00-2.00	175-177	No interpretation possible
19/1176	2	WS07	2.00-3.00	178-180	Possible Degraded diesel
19/1176	2	WS07	3.00-4.00	181-183	No interpretation possible
19/1176	2	WS08	0.00-1.00	184-186	No interpretation possible
19/1176	2	WS08	1.00-2.00	187-189	No interpretation possible
19/1176	2	WS08	2.00-3.00	190-192	Gasoline residues & Degraded diesel
19/1176	2	WS09	0.00-1.00	193-195	No interpretation possible
19/1176	2	WS09	1.00-2.00	196-198	No interpretation possible
19/1176	2	WS09	2.00-3.00	199-201	No interpretation possible
19/1176	2	WS10	0.00-1.00	202-204	No interpretation possible
19/1176	2	WS10	1.00-2.00	205-207	No interpretation possible
19/1176	2	WS10	2.00-3.00	208-210	No interpretation possible

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton

Matrix : Solid

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	EPH Interpretation
19/1176	2	WS10	3.00-4.00	211-213	Possible Degraded diesel
19/1176	2	WS11	0.00-1.00	214-216	No interpretation possible
19/1176	2	WS11	1.00-2.00	217-219	Gasoline residues, PAH's & Degraded diesel
19/1176	2	WS11	2.00-3.00	220-222	Gasoline residues, Possible PAH's & Degraded diesel
19/1176	2	WS12	0.00-1.00	223-225	No interpretation possible
19/1176	2	WS12	1.00-2.00	226-228	No interpretation possible
19/1176	2	WS12	2.00-3.00	229-231	No interpretation possible
19/1176	2	WS13	0.00-1.00	232-234	No interpretation possible
19/1176	2	WS13	1.00-2.00	235-237	No interpretation possible
19/1176	2	WS13	2.00-3.00	238-240	No interpretation possible

Client Name: Ground Investigations Ireland
Reference: 19/01/8354
Location: Cornelscourt
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 Jones Environmental Laboratory consultant, Jones Environmental Laboratory cannot be responsible for inaccurate or unrepresentative sampling.

Signed on behalf of Jones Environmental Laboratory:



Ryan Butterworth
 Asbestos Team Leader

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	Date Of Analysis	Analysis	Result
19/1176	2	WS04	1.00-2.00	146	04/02/2019	General Description (Bulk Analysis)	Soil/Stones
					04/02/2019	Asbestos Fibres	NAD
					04/02/2019	Asbestos ACM	NAD
					04/02/2019	Asbestos Type	NAD
					04/02/2019	Asbestos Level Screen	NAD
19/1176	2	WS04	2.00-3.00	149	04/02/2019	General Description (Bulk Analysis)	Soil/Stones
					04/02/2019	Asbestos Fibres	NAD
					04/02/2019	Asbestos ACM	NAD
					04/02/2019	Asbestos Type	NAD
					04/02/2019	Asbestos Level Screen	NAD
19/1176	2	WS04	3.00-4.00	152	04/02/2019	General Description (Bulk Analysis)	Soil/Stones
					04/02/2019	Asbestos Fibres	NAD
					04/02/2019	Asbestos ACM	NAD
					04/02/2019	Asbestos Type	NAD
					04/02/2019	Asbestos Level Screen	NAD
19/1176	2	WS07	1.00-2.00	176	04/02/2019	General Description (Bulk Analysis)	soil.stones
					04/02/2019	Asbestos Fibres	NAD
					04/02/2019	Asbestos ACM	NAD
					04/02/2019	Asbestos Type	NAD
					04/02/2019	Asbestos Level Screen	NAD
19/1176	2	WS07	2.00-3.00	179	04/02/2019	General Description (Bulk Analysis)	soil.stones
					04/02/2019	Asbestos Fibres	NAD
					04/02/2019	Asbestos ACM	NAD
					04/02/2019	Asbestos Type	NAD
					04/02/2019	Asbestos Level Screen	NAD
19/1176	2	WS07	3.00-4.00	182	04/02/2019	General Description (Bulk Analysis)	soil.stones
					04/02/2019	Asbestos Fibres	NAD
					04/02/2019	Asbestos ACM	NAD
					04/02/2019	Asbestos Type	NAD
					04/02/2019	Asbestos Level Screen	NAD
19/1176	2	WS08	1.00-2.00	188	04/02/2019	General Description (Bulk Analysis)	Soil/Stones
					04/02/2019	Asbestos Fibres	NAD
					04/02/2019	Asbestos ACM	NAD

Client Name: Ground Investigations Ireland
Reference: 19/01/8354
Location: Cornelscourt
Contact: Barry Sexton

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	Date Of Analysis	Analysis	Result
19/1176	2	WS08	1.00-2.00	188	04/02/2019	Asbestos Type	NAD
					04/02/2019	Asbestos Level Screen	NAD
19/1176	2	WS08	2.00-3.00	191	04/02/2019	General Description (Bulk Analysis)	Soil/Stones
					04/02/2019	Asbestos Fibres	NAD
					04/02/2019	Asbestos ACM	NAD
					04/02/2019	Asbestos Type	NAD
					04/02/2019	Asbestos Level Screen	NAD
19/1176	2	WS10	2.00-3.00	209	04/02/2019	General Description (Bulk Analysis)	Soil/Stones
					04/02/2019	Asbestos Fibres	NAD
					04/02/2019	Asbestos ACM	NAD
					04/02/2019	Asbestos Type	NAD
					04/02/2019	Asbestos Level Screen	NAD
19/1176	2	WS10	3.00-4.00	212	04/02/2019	General Description (Bulk Analysis)	Soil/Stones
					04/02/2019	Asbestos Fibres	NAD
					04/02/2019	Asbestos ACM	NAD
					04/02/2019	Asbestos Type	NAD
					04/02/2019	Asbestos Level Screen	NAD

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	Analysis	Reason
No deviating sample report results for job 19/1176						

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

JE Job No.: 19/1176

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. 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.

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

Samples must be received in a condition appropriate to the requested analyses. All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. If this is not the case you will be informed and any test results that may be compromised highlighted on your deviating samples report.

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.

REPORTS FROM THE SOUTH AFRICA LABORATORY

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

Please include all sections of this report if it is reproduced

All solid results are expressed on a dry weight basis unless stated otherwise.

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.
++	Result outside calibration range, results should be considered as indicative only and are not accredited.
*	Analysis subcontracted to an Exova Jones Environmental 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

Appendix - Methods used for WAC (2003/33/EC)

JE Job No.: 19/1176

Leachate tests	
10l/kg; 4mm	I.S. EN 12457-2:2002 Specified particle size; water added to L/S ratio; capped; agitated for 24 ± 0.5 hours; eluate settled and filtered over 0.45 µm membrane filter.
Eluate analysis	
As	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Ba	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Cd	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Cr total	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Cu	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Hg	I.S. EN 13370 rec. EN 1483 (CVAAS)
Mo	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Ni	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Pb	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Sb	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Se	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Zn	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Chloride	I.S. EN 12506 rec. EN ISO 10304-part 1 (liquid chromatography of ions)
Fluoride	I.S. EN 12506 rec. EN ISO 10304-part 1 (liquid chromatography of ions)
Sulphate	I.S. EN 12506 rec. EN ISO 10304-part 1 (liquid chromatography of ions)
Phenol index	I.S. EN 13370 rec. ISO 6439 (4-Aminoantipyrine spectrometric methods after distillation)* (BY HPLC - Jones Env)
DOC	I.S. EN 1484
TDS	I.S. EN 15216
Compositional analysis	
TOC	I.S. EN 13137 Method B: carbonates removed with acid; TOC by combustion.
BTEX	GC-FID
PCB7**	I.S. EN 15308 analysis by GC-ECD.
Mineral oil	I.S. EN 14039 C10 to C40 analysis by GC-FID.
PAH17***	I.S. EN 15527 PAH17 analysis by GC-MS
Metals	I.S. EN 13657 - Aqua regia digestion: EN ISO 11885 (ICP-OES)
Other	
Dry matter	I.S. EN 14346 sample is dried to a constant mass in an oven at 105 ± 3 °C; Method B Water content by direct Karl-Fischer-titration and either volumetric or coulometric detection.
LOI	I.S. EN 15169 Difference in mass after heating in a furnace up to 550 ± 25 °C.
ANC	CEN/TS 15364 Determined by amounts of acid or base needed to cover the pH range
<p>Notes:</p> <p>*If not suitable due to LOD, precision, etc., any other suitable method can be used, e.g. AFS, ICP-MS</p> <p>**PCB-28, PCB-52, PCB-101, PCB-118, PCB-138, PCB-153 and PCB-180</p> <p>***Naphthalene, Acenaphthylene, Acenaphthene, Anthracene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(g,h,i)perylene, Benzo(a)pyrene, Chrysene, Coronene, Dibenzo(a,h)anthracene, Fluorene, Fluoranthene, Indeno(1,2,3-c,d)pyrene, Phenanthrene and Pyrene.</p>	

JE Job No: 19/1176

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 16 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 16 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 USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	PM16	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	
TM5	Modified USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	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 USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	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

JE Job No: 19/1176

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 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

JE Job No: 19/1176

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			AR	Yes
NONE	No Method Code	PM17	Modified method 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 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	



Exova Jones Environmental

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Attention : Barry Sexton
Date : 11th February, 2019
Your reference : 8354-01-19
Our reference : Test Report 19/1176 Batch 1
Location : Cornelscourt
Date samples received : 24th January, 2019
Status : Final report
Issue : 1

Thirty eight samples were received for analysis on 24th January, 2019 of which twenty four 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.

Where Waste Acceptance Criteria Suite (EC Decision of 19 December 2002 (2003/33/EC)) has been requested, all analyses have been performed using the relevant EN methods where they exist.

Compiled By:

Phil Sommerton BSc

Project Manager

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

Report : Solid

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

J E Sample No.	1-3	4-6	10-12	13-15	19-21	28-30	31-33	37-39	40-42	43-45	Please see attached notes for all abbreviations and acronyms		
Sample ID	TP-01	TP-01	TP-02	TP-02	TP-03	TP-04	TP-04	TP-05	TP-06	TP-06			
Depth	0.50	1.50	0.60	1.60	0.50	1.00	2.00	0.80	0.50	1.50			
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	21/01/2019	21/01/2019	21/01/2019	21/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	21/01/2019	21/01/2019			
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	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	LOD/LOR	Units	Method No.
Antimony	2	-	2	-	3	2	-	2	2	2	<1	mg/kg	TM30/PM15
Arsenic #	16.1	-	10.9	-	16.3	10.1	-	15.4	7.7	11.3	<0.5	mg/kg	TM30/PM15
Barium #	143	-	73	-	165	63	-	121	87	81	<1	mg/kg	TM30/PM15
Cadmium #	2.6	-	1.9	-	2.7	1.8	-	2.9	1.7	2.1	<0.1	mg/kg	TM30/PM15
Chromium #	88.9	-	42.7	-	73.1	54.8	-	76.8	77.4	50.0	<0.5	mg/kg	TM30/PM15
Copper #	27	-	27	-	35	27	-	33	18	32	<1	mg/kg	TM30/PM15
Lead #	24	-	17	-	70	18	-	142	12	16	<5	mg/kg	TM30/PM15
Mercury #	<0.1	-	<0.1	-	<0.1	<0.1	-	0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Molybdenum #	3.6	-	3.2	-	5.5	4.2	-	5.7	3.3	3.5	<0.1	mg/kg	TM30/PM15
Nickel #	48.1	-	40.0	-	53.5	35.7	-	51.6	31.6	44.4	<0.7	mg/kg	TM30/PM15
Selenium #	2	-	1	-	2	1	-	2	<1	<1	<1	mg/kg	TM30/PM15
Zinc #	107	-	88	-	138	101	-	144	61	96	<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	<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	mg/kg	TM4/PM8
Acenaphthene #	<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	mg/kg	TM4/PM8
Phenanthrene #	<0.03	-	<0.03	-	0.05	<0.03	-	0.05	<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	mg/kg	TM4/PM8
Fluoranthene #	<0.03	-	<0.03	-	0.10	<0.03	-	0.10	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Pyrene #	<0.03	-	<0.03	-	0.10	<0.03	-	0.10	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	<0.06	-	<0.06	-	0.10	<0.06	-	0.10	<0.06	<0.06	<0.06	mg/kg	TM4/PM8
Chrysene #	<0.02	-	<0.02	-	0.06	<0.02	-	0.08	<0.02	<0.02	<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	<0.07	-	<0.07	-	0.11	<0.07	-	0.14	<0.07	<0.07	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	-	<0.04	-	0.06	<0.04	-	0.08	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	<0.04	-	<0.04	-	<0.04	<0.04	-	0.05	<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	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	-	<0.04	-	<0.04	<0.04	-	0.06	<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	mg/kg	TM4/PM8
PAH 6 Total #	<0.22	-	<0.22	-	0.27	<0.22	-	0.43	<0.22	<0.22	<0.22	mg/kg	TM4/PM8
PAH 17 Total	<0.64	-	<0.64	-	<0.64	<0.64	-	0.76	<0.64	<0.64	<0.64	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	-	<0.05	-	0.08	<0.05	-	0.10	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	-	<0.02	-	0.03	<0.02	-	0.04	<0.02	<0.02	<0.02	mg/kg	TM4/PM8
Benzo(j)fluoranthene	<1	-	<1	-	<1	<1	-	<1	<1	<1	<1	mg/kg	TM4/PM8
PAH Surrogate % Recovery	98	-	97	-	99	96	-	96	99	91	<0	%	TM4/PM8
Mineral Oil (C10-C40)	<30	-	<30	-	<30	<30	-	<30	<30	<30	<30	mg/kg	TM5/PM8/PM16

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

Report : Solid

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

J E Sample No.	1-3	4-6	10-12	13-15	19-21	28-30	31-33	37-39	40-42	43-45	Please see attached notes for all abbreviations and acronyms		
Sample ID	TP-01	TP-01	TP-02	TP-02	TP-03	TP-04	TP-04	TP-05	TP-06	TP-06			
Depth	0.50	1.50	0.60	1.60	0.50	1.00	2.00	0.80	0.50	1.50			
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	21/01/2019	21/01/2019	21/01/2019	21/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	21/01/2019	21/01/2019			
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	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	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	mg/kg	TM36/PM12
>C6-C8 #	<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	mg/kg	TM36/PM12
>C10-C12 #	<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	mg/kg	TMS/PM8/PM16
>C16-C21 #	<7	-	<7	-	<7	<7	-	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>C21-C35 #	<7	-	<7	-	<7	<7	-	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>C35-C40	<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	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	mg/kg	TM36/PM12
>C10-C25	<10	-	<10	-	<10	<10	-	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
>C25-C35	<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	mg/kg	TM36/PM12
>EC7-EC8 #	<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	mg/kg	TM36/PM12
>EC10-EC12 #	<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	mg/kg	TMS/PM8/PM16
>EC16-EC21 #	<7	-	<7	-	<7	<7	-	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>EC21-EC35 #	<7	-	<7	-	<7	<7	-	<7	<7	<7	<7	mg/kg	TMS/PM8/PM16
>EC35-EC40	<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	mg/kg	TMS/PM8/PM16/PM12/PM15
Total aliphatics and aromatics(C5-40)	<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	mg/kg	TM36/PM12
>EC10-EC25	<10	-	<10	-	<10	<10	-	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
>EC25-EC35	<10	-	<10	-	<10	<10	-	<10	<10	<10	<10	mg/kg	TMS/PM8/PM16
MTBE #	<5	-	<5	-	<5	<5	-	<5	<5	<5	<5	ug/kg	TM31/PM12
Benzene #	<5	-	<5	-	<5	<5	-	<5	<5	<5	<5	ug/kg	TM31/PM12
Toluene #	<5	-	<5	-	<5	<5	-	<5	<5	<5	<5	ug/kg	TM31/PM12
Ethylbenzene #	<5	-	<5	-	<5	<5	-	<5	<5	<5	<5	ug/kg	TM31/PM12
m/p-Xylene #	<5	-	<5	-	<5	<5	-	<5	<5	<5	<5	ug/kg	TM31/PM12
o-Xylene #	<5	-	<5	-	<5	<5	-	<5	<5	<5	<5	ug/kg	TM31/PM12
PCB 28 #	<5	-	<5	-	<5	<5	-	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 52 #	<5	-	<5	-	<5	<5	-	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 101 #	<5	-	<5	-	<5	<5	-	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 118 #	<5	-	<5	-	<5	<5	-	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 138 #	<5	-	<5	-	<5	<5	-	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 153 #	<5	-	<5	-	<5	<5	-	<5	<5	<5	<5	ug/kg	TM17/PM8
PCB 180 #	<5	-	<5	-	<5	<5	-	<5	<5	<5	<5	ug/kg	TM17/PM8
Total 7 PCBs #	<35	-	<35	-	<35	<35	-	<35	<35	<35	<35	ug/kg	TM17/PM8

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

Report : Solid

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

J E Sample No.	1-3	4-6	10-12	13-15	19-21	28-30	31-33	37-39	40-42	43-45	Please see attached notes for all abbreviations and acronyms		
Sample ID	TP-01	TP-01	TP-02	TP-02	TP-03	TP-04	TP-04	TP-05	TP-06	TP-06			
Depth	0.50	1.50	0.60	1.60	0.50	1.00	2.00	0.80	0.50	1.50			
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	21/01/2019	21/01/2019	21/01/2019	21/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	21/01/2019	21/01/2019			
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	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	LOD/LOR	Units	Method No.
Natural Moisture Content	17.4	-	15.1	-	23.2	18.0	-	26.2	16.4	14.2	<0.1	%	PM4/PM0
Moisture Content (% Wet Weight)	14.8	-	13.1	-	18.8	15.3	-	20.7	14.1	12.5	<0.1	%	PM4/PM0
Hexavalent Chromium #	<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) #	-	-	-	-	-	-	-	-	-	-	<0.0015	g/l	TM38/PM20
Chromium III	88.9	-	42.7	-	73.1	54.8	-	76.8	77.4	50.0	<0.5	mg/kg	NONE/NONE
Total Organic Carbon #	0.70	-	0.36	-	1.58	0.34	-	1.66	0.28	0.34	<0.02	%	TM21/PM24
pH #	8.46		8.76		8.40	8.80		8.52	8.62	8.74	<0.01	pH units	TM73/PM11
Mass of raw test portion	0.1042	-	0.1058	-	0.1137	0.1107	-	0.1125	0.1046	0.1048		kg	NONE/PM17
Mass of dried test portion	0.09	-	0.09	-	0.09	0.09	-	0.09	0.09	0.09		kg	NONE/PM17

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

Report : Solid

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

J E Sample No.	52-54	55-57	58-60	64-66	67-69	73-75	76-78	81-83	84-86	94-96	Please see attached notes for all abbreviations and acronyms		
Sample ID	TP-07	TP-07	TP-07	TP-07A	TP-07A	TP-08	TP-08	TP-09	TP-09	TP-14			
Depth	0.50	1.50	2.50	0.50	1.50	0.50	1.50	0.50	1.50	1.00			
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	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019			
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	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	LOD/LOR	Units	Method No.
Antimony	1	2	1	3	2	3	2	3	2	2	<1	mg/kg	TM30/PM15
Arsenic #	7.6	7.8	7.7	15.8	12.2	17.8	14.6	18.6	10.4	11.8	<0.5	mg/kg	TM30/PM15
Barium #	36	62	65	147	255	139	99	125	69	75	<1	mg/kg	TM30/PM15
Cadmium #	1.8	1.8	1.4	3.0	3.5	3.0	2.6	2.5	1.9	2.2	<0.1	mg/kg	TM30/PM15
Chromium #	40.1	54.6	47.5	66.8	59.7	67.6	70.0	79.6	54.6	60.1	<0.5	mg/kg	TM30/PM15
Copper #	26	23	21	31	37	42	40	44	32	41	<1	mg/kg	TM30/PM15
Lead #	11	14	12	26	25	35	26	84	17	157	<5	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	<0.1	0.2	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Molybdenum #	3.4	3.4	2.8	5.6	6.2	5.8	4.8	4.9	3.8	3.6	<0.1	mg/kg	TM30/PM15
Nickel #	21.2	29.7	29.2	54.4	61.0	66.7	54.4	47.3	42.4	44.0	<0.7	mg/kg	TM30/PM15
Selenium #	<1	1	<1	2	3	2	1	2	1	1	<1	mg/kg	TM30/PM15
Zinc #	66	80	67	134	107	143	116	139	91	139	<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	0.15	<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	0.15	<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	0.09	<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	0.39	<0.04	mg/kg	TM4/PM8
Phenanthrene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.06	<0.03	1.51	<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	0.30	<0.04	mg/kg	TM4/PM8
Fluoranthene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.09	<0.03	1.06	<0.03	mg/kg	TM4/PM8
Pyrene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.10	<0.03	2.80	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.10	<0.06	0.59	<0.06	mg/kg	TM4/PM8
Chrysene #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.08	<0.02	0.37	<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	0.14	<0.07	0.69	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.08	<0.04	0.60	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.06	<0.04	0.36	<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	0.05	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.05	<0.04	1.64	<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	0.62	<0.04	mg/kg	TM4/PM8
PAH 6 Total #	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	0.42	<0.22	4.35	<0.22	mg/kg	TM4/PM8
PAH 17 Total	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	<0.64	0.76	<0.64	11.37	<0.64	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.10	<0.05	0.50	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	<0.02	0.19	<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	105	97	99	98	96	105	108	112	99	97	<0	%	TM4/PM8
Mineral Oil (C10-C40)	<30	<30	<30	<30	<30	<30	<30	<30	<30	3329	<30	mg/kg	TM5/PM8/PM16

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

Report : Solid

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

J E Sample No.	52-54	55-57	58-60	64-66	67-69	73-75	76-78	81-83	84-86	94-96	Please see attached notes for all abbreviations and acronyms		
Sample ID	TP-07	TP-07	TP-07	TP-07A	TP-07A	TP-08	TP-08	TP-09	TP-09	TP-14	LOD/LOR	Units	Method No.
Depth	0.50	1.50	2.50	0.50	1.50	0.50	1.50	0.50	1.50	1.00			
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	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019			
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	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019			
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 ^{SV}	<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	<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	0.2 ^{SV}	<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2	1.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	17.2	<0.2	mg/kg	TMS/PM8/PM16
>C12-C16 #	<4	<4	<4	<4	<4	<4	<4	<4	<4	12	<4	mg/kg	TMS/PM8/PM16
>C16-C21 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	66	<7	mg/kg	TMS/PM8/PM16
>C21-C35 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	2821	<7	mg/kg	TMS/PM8/PM16
>C35-C40	<7	<7	<7	<7	<7	<7	<7	<7	<7	413	<7	mg/kg	TMS/PM8/PM16
Total aliphatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26	<26	3329	<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	0.2 ^{SV}	<0.1	mg/kg	TM36/PM12
>C10-C25	<10	<10	<10	<10	<10	<10	<10	<10	<10	530	<10	mg/kg	TMS/PM8/PM16
>C25-C35	<10	<10	<10	<10	<10	<10	<10	<10	<10	2358	<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	<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	<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	<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	31.4	<0.2	mg/kg	TMS/PM8/PM16
>EC12-EC16 #	<4	<4	<4	<4	<4	<4	<4	<4	<4	36	<4	mg/kg	TMS/PM8/PM16
>EC16-EC21 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	129	<7	mg/kg	TMS/PM8/PM16
>EC21-EC35 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	1585	<7	mg/kg	TMS/PM8/PM16
>EC35-EC40	<7	<7	<7	<7	<7	<7	<7	<7	<7	291	<7	mg/kg	TMS/PM8/PM16
Total aromatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26	<26	2072	<26	mg/kg	TMS/PM8/PM16
Total aliphatics and aromatics(C5-40)	<52	<52	<52	<52	<52	<52	<52	<52	<52	5401	<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	<0.1 ^{SV}	<0.1	mg/kg	TM36/PM12
>EC10-EC25	<10	<10	<10	<10	<10	<10	<10	<10	<10	463	<10	mg/kg	TMS/PM8/PM16
>EC25-EC35	<10	<10	<10	<10	<10	<10	<10	<10	<10	1315	<10	mg/kg	TMS/PM8/PM16
MTBE #	<5	<5	<5	<5	<5	<5	<5	<5 ^{SV}	<5	<5 ^{SV}	<5	ug/kg	TM31/PM12
Benzene #	<5	<5	<5	<5	<5	<5	<5	<5 ^{SV}	<5	<5 ^{SV}	<5	ug/kg	TM31/PM12
Toluene #	<5	<5	<5	<5	<5	<5	<5	<5 ^{SV}	<5	<5 ^{SV}	<5	ug/kg	TM31/PM12
Ethylbenzene #	<5	<5	<5	<5	<5	<5	<5	<5 ^{SV}	<5	13 ^{SV}	<5	ug/kg	TM31/PM12
m/p-Xylene #	<5	<5	<5	<5	<5	<5	<5	<5 ^{SV}	<5	15 ^{SV}	<5	ug/kg	TM31/PM12
o-Xylene #	<5	<5	<5	<5	<5	<5	<5	<5 ^{SV}	<5	30 ^{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

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

Report : Solid

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

J E Sample No.	52-54	55-57	58-60	64-66	67-69	73-75	76-78	81-83	84-86	94-96	Please see attached notes for all abbreviations and acronyms		
Sample ID	TP-07	TP-07	TP-07	TP-07A	TP-07A	TP-08	TP-08	TP-09	TP-09	TP-14			
Depth	0.50	1.50	2.50	0.50	1.50	0.50	1.50	0.50	1.50	1.00			
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	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019			
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	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	LOD/LOR	Units	Method No.
Natural Moisture Content	13.5	14.2	14.7	23.3	17.0	23.9	18.4	29.8	11.5	17.0	<0.1	%	PM4/PM0
Moisture Content (% Wet Weight)	11.9	12.5	12.8	18.9	14.6	19.3	15.5	23.0	10.3	14.5	<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
Sulphate as SO4 (2:1 Ext) #	-	-	-	-	-	-	-	-	-	-	<0.0015	g/l	TM38/PM20
Chromium III	40.1	54.6	47.5	66.8	59.7	67.6	70.0	79.6	54.6	60.1	<0.5	mg/kg	NONE/NONE
Total Organic Carbon #	0.43	0.27	0.18	0.67	0.64	0.85	0.69	4.57	0.33	1.04	<0.02	%	TM21/PM24
pH #	8.94	8.78	8.91	8.18	8.57	8.33	8.46	8.35	8.86	8.46	<0.01	pH units	TM73/PM11
Mass of raw test portion	0.0985	0.1004	0.1067	0.1087	0.1013	0.111	0.1061	0.112	0.1029	0.1026		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

Exova Jones Environmental

Client Name: Ground Investigations Ireland
 Reference: 8354-01-19
 Location: Cornelscourt
 Contact: Barry Sexton
 JE Job No.: 19/1176

Report : Solid

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

J E Sample No.	97-99	100-102	103-105	106-108															
Sample ID	TP-14	TP-14	TP-20	TP-20															
Depth	2.00	3.00	0.50	1.50															
COC No / misc																			
Containers	V J T	V J T	V J T	V J T															
Sample Date	22/01/2019	22/01/2019	21/01/2019	21/01/2019															
Sample Type	Soil	Soil	Soil	Soil															
Batch Number	1	1	1	1															
Date of Receipt	24/01/2019	24/01/2019	24/01/2019	24/01/2019															
										LOD/LOR	Units	Method No.							
Antimony	1	2	3	1															
Arsenic #	7.2	9.2	17.4	8.0															
Barium #	51	63	139	96															
Cadmium #	1.7	1.9	5.4	1.9															
Chromium #	45.7	54.7	76.6	38.5															
Copper #	26	23	140	26															
Lead #	65	24	72	15															
Mercury #	<0.1	<0.1	0.2	<0.1															
Molybdenum #	2.8	2.8	6.0	3.5															
Nickel #	22.7	34.2	49.9	32.9															
Selenium #	1	<1	2	1															
Zinc #	68	79	181	80															
PAH MS																			
Naphthalene #	1.45	0.16	<0.04	<0.04															
Acenaphthylene	0.28	0.14	<0.03	<0.03															
Acenaphthene #	0.10	0.09	<0.05	<0.05															
Fluorene #	0.54	0.41	<0.04	<0.04															
Phenanthrene #	2.19	1.54	0.08	<0.03															
Anthracene #	0.42	0.30	<0.04	<0.04															
Fluoranthene #	1.15	0.80	0.14	<0.03															
Pyrene #	2.86	2.41	0.14	<0.03															
Benzo(a)anthracene #	0.59	0.47	0.13	<0.06															
Chrysene #	0.36	0.27	0.10	<0.02															
Benzo(bk)fluoranthene #	0.46	0.33	0.20	<0.07															
Benzo(a)pyrene #	0.43	0.35	0.11	<0.04															
Indeno(123cd)pyrene #	0.17	0.17	0.08	<0.04															
Dibenzo(ah)anthracene #	<0.04	<0.04	<0.04	<0.04															
Benzo(ghi)perylene #	0.82	0.67	0.08	<0.04															
Coronene	0.28	0.24	<0.04	<0.04															
PAH 6 Total #	3.03	2.32	0.61	<0.22															
PAH 17 Total	12.10	8.35	1.06	<0.64															
Benzo(b)fluoranthene	0.33	0.24	0.14	<0.05															
Benzo(k)fluoranthene	0.13	0.09	0.06	<0.02															
Benzo(j)fluoranthene	<1	<1	<1	<1															
PAH Surrogate % Recovery	101	102	107	102															
Mineral Oil (C10-C40)	3848	3465	<30	<30															

Please see attached notes for all abbreviations and acronyms

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

Report : Solid

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

Please see attached notes for all abbreviations and acronyms

J E Sample No.	97-99	100-102	103-105	106-108										
Sample ID	TP-14	TP-14	TP-20	TP-20										
Depth	2.00	3.00	0.50	1.50										
COC No / misc														
Containers	V J T	V J T	V J T	V J T										
Sample Date	22/01/2019	22/01/2019	21/01/2019	21/01/2019										
Sample Type	Soil	Soil	Soil	Soil										
Batch Number	1	1	1	1										
Date of Receipt	24/01/2019	24/01/2019	24/01/2019	24/01/2019										
Natural Moisture Content	11.2	13.6	25.0	13.3								<0.1	%	PM4/PM0
Moisture Content (% Wet Weight)	10.1	12.0	20.0	11.8								<0.1	%	PM4/PM0
Hexavalent Chromium #	<0.3	<0.3	<0.3	<0.3								<0.3	mg/kg	TM38/PM20
Sulphate as SO4 (2:1 Ext) #	-	-	-	-								<0.0015	g/l	TM38/PM20
Chromium III	45.7	54.7	76.6	38.5								<0.5	mg/kg	NONE/NONE
Total Organic Carbon #	0.72	0.63	2.44	0.24								<0.02	%	TM21/PM24
pH #	8.42	8.68	8.38	8.68								<0.01	pH units	TM73/PM11
Mass of raw test portion	0.1007	0.1016	0.1054	0.103									kg	NONE/PM17
Mass of dried test portion	0.09	0.09	0.09	0.09									kg	NONE/PM17

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

Report : CEN 10:1 1 Batch

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

J E Sample No.	1-3	10-12	19-21	28-30	37-39	40-42	43-45	52-54	55-57	58-60	Please see attached notes for all abbreviations and acronyms		
Sample ID	TP-01	TP-02	TP-03	TP-04	TP-05	TP-06	TP-06	TP-07	TP-07	TP-07			
Depth	0.50	0.60	0.50	1.00	0.80	0.50	1.50	0.50	1.50	2.50			
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	21/01/2019	21/01/2019	22/01/2019	22/01/2019	22/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019			
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	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	LOD/LOR	Units	Method No.
Dissolved Antimony #	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.002	0.003	<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	0.03	<0.02	<0.02	<0.02	mg/kg	TM30/PM17
Dissolved Arsenic #	<0.0025	<0.0025	<0.0025	<0.0025	0.0032	<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	0.032	<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 #	0.006	0.007	0.003	0.004	0.005	0.005	0.006	0.004	0.005	0.006	<0.002	mg/l	TM30/PM17
Dissolved Molybdenum (A10) #	0.06	0.07	0.03	0.04	0.05	0.05	0.06	0.04	0.05	0.06	<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 #	<0.003	<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	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	mg/l	TM173/PM0
Fluoride	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	mg/kg	TM173/PM0
Sulphate as SO4 #	6.4	0.6	<0.5	<0.5	<0.5	4.8	3.6	0.7	1.1	0.8	<0.5	mg/l	TM38/PM0
Sulphate as SO4 #	64	6	<5	<5	<5	48	36	7	11	8	<5	mg/kg	TM38/PM0
Chloride #	0.9	0.9	0.4	0.4	0.6	0.9	0.8	0.3	<0.3	<0.3	<0.3	mg/l	TM38/PM0
Chloride #	9	9	4	4	6	9	8	3	<3	<3	<3	mg/kg	TM38/PM0
Dissolved Organic Carbon	<2	<2	2	<2	6	<2	<2	<2	<2	<2	<2	mg/l	TM60/PM0
Dissolved Organic Carbon	<20	<20	20	<20	60	<20	<20	<20	<20	<20	<20	mg/kg	TM60/PM0
pH	8.18	8.27	8.07	8.23	8.10	8.40	8.09	8.60	8.45	8.36	<0.01	pH units	TM73/PM0
Total Dissolved Solids #	69	113	172	115	74	93	82	60	54	59	<35	mg/l	TM20/PM0
Total Dissolved Solids #	690	1130	1720	1150	740	930	820	600	540	590	<350	mg/kg	TM20/PM0

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

Report : CEN 10:1 1 Batch

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

J E Sample No.	64-66	67-69	73-75	76-78	81-83	84-86	94-96	97-99	100-102	103-105	Please see attached notes for all abbreviations and acronyms		
Sample ID	TP-07A	TP-07A	TP-08	TP-08	TP-09	TP-09	TP-14	TP-14	TP-14	TP-20			
Depth	0.50	1.50	0.50	1.50	0.50	1.50	1.00	2.00	3.00	0.50			
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	21/01/2019	21/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	21/01/2019			
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	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	LOD/LOR	Units	Method No.
Dissolved Antimony #	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.003	0.004	<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	0.03	0.04	<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	0.0027	<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	0.027	<0.025	<0.025	mg/kg	TM30/PM17
Dissolved Barium #	0.004	0.004	<0.003	<0.003	0.003	<0.003	0.018	0.034	0.016	0.004	<0.003	mg/l	TM30/PM17
Dissolved Barium (A10) #	0.04	0.04	<0.03	<0.03	0.03	<0.03	0.18	0.34	0.16	0.04	<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	0.005	0.003	0.005	0.003	0.005	0.009	0.009	0.016	0.003	<0.002	mg/l	TM30/PM17
Dissolved Molybdenum (A10) #	0.02	0.05	0.03	0.05	0.03	0.05	0.09	0.09	0.16	0.03	<0.02	mg/kg	TM30/PM17
Dissolved Nickel #	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.006	0.008	0.008	<0.002	<0.002	mg/l	TM30/PM17
Dissolved Nickel (A10) #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.06	0.08	0.08	<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 #	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.003	0.005	<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	0.05	<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	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	mg/l	TM173/PM0
Fluoride	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	mg/kg	TM173/PM0
Sulphate as SO4 #	<0.5	1.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	0.6	<0.5	mg/l	TM38/PM0
Sulphate as SO4 #	<5	17	<5	<5	<5	<5	<5	<5	6	6	<5	mg/kg	TM38/PM0
Chloride #	1.5	0.4	<0.3	<0.3	<0.3	0.7	0.6	0.7	1.0	<0.3	<0.3	mg/l	TM38/PM0
Chloride #	15	4	<3	<3	<3	7	6	7	10	<3	<3	mg/kg	TM38/PM0
Dissolved Organic Carbon	<2	<2	<2	<2	4	<2	6	3	3	3	<2	mg/l	TM60/PM0
Dissolved Organic Carbon	<20	<20	<20	<20	40	<20	60	30	30	30	<20	mg/kg	TM60/PM0
pH	8.13	8.24	7.90	8.22	8.10	7.91	8.29	8.27	8.01	8.07	<0.01	pH units	TM73/PM0
Total Dissolved Solids #	131	159	41	<35	78	142	107	80	65	<35	<35	mg/l	TM20/PM0
Total Dissolved Solids #	1310	1590	410	<350	780	1420	1070	800	650	<350	<350	mg/kg	TM20/PM0

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

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

J E Sample No.	1-3	10-12	19-21	28-30	37-39	40-42	43-45	52-54	55-57	58-60	Please see attached notes for all abbreviations and acronyms					
Sample ID	TP-01	TP-02	TP-03	TP-04	TP-05	TP-06	TP-06	TP-07	TP-07	TP-07	Inert	Stable Non-reactive	Hazardous	LOD LOR	Units	Method No.
Depth	0.50	0.60	0.50	1.00	0.80	0.50	1.50	0.50	1.50	2.50						
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	21/01/2019	21/01/2019	22/01/2019	22/01/2019	22/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019	21/01/2019						
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	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019						
Solid Waste Analysis																
Total Organic Carbon #	0.70	0.36	1.58	0.34	1.66	0.28	0.34	0.43	0.27	0.18	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	<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	0.27	<0.22	0.43	<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	0.76	<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	0.032	<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/PM0
Molybdenum #	0.06	0.07	0.03	0.04	0.05	0.05	0.06	0.04	0.05	0.06	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	0.03	<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	<0.03	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 #	690	1130	1720	1150	740	930	820	600	540	590	4000	60000	100000	<350	mg/kg	TM20/PM0
Dissolved Organic Carbon	<20	<20	20	<20	60	<20	<20	<20	<20	<20	500	800	1000	<20	mg/kg	TM60/PM0
Mass of raw test portion	0.1042	0.1058	0.1137	0.1107	0.1125	0.1046	0.1048	0.0985	0.1004	0.1067	-	-	-		kg	NONE/PM17
Dry Matter Content Ratio	86.0	85.5	78.9	81.0	79.7	85.8	86.1	91.7	89.2	84.4	-	-	-	<0.1	%	NONE/PM4
Leachant Volume	0.885	0.885	0.876	0.879	0.877	0.885	0.885	0.892	0.889	0.883	-	-	-		l	NONE/PM17
Eluate Volume	0.75	0.7	0.68	0.69	0.8	0.78	0.85	0.79	0.77	0.78	-	-	-		l	NONE/PM17
pH #	8.46	8.76	8.40	8.80	8.52	8.62	8.74	8.94	8.78	8.91	-	-	-	<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	<3	<3	<3	<3	<3	-	-	-	<3	mg/kg	TM173/PM0
Sulphate as SO4 #	64	6	<5	<5	<5	48	36	7	11	8	1000	20000	50000	<5	mg/kg	TM38/PM0
Chloride #	9	9	4	4	6	9	8	3	<3	<3	800	15000	25000	<3	mg/kg	TM38/PM0

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1176

Report : EN12457_2

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

J E Sample No.	64-66	67-69	73-75	76-78	81-83	84-86	94-96	97-99	100-102	103-105						
Sample ID	TP-07A	TP-07A	TP-08	TP-08	TP-09	TP-09	TP-14	TP-14	TP-14	TP-20						
Depth	0.50	1.50	0.50	1.50	0.50	1.50	1.00	2.00	3.00	0.50						
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	21/01/2019	21/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	22/01/2019	21/01/2019						
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	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019	24/01/2019						
Solid Waste Analysis																
Total Organic Carbon #	0.67	0.64	0.85	0.69	4.57	0.33	1.04	0.72	0.63	2.44	3	5	6	<0.02	%	TM21/PM24
Sum of BTEX	<0.025	<0.025	<0.025	<0.025	<0.025 ^{SV}	<0.025	0.058 ^{SV}	0.476 ^{SV}	0.058 ^{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	3329	3848	3465	<30	500	-	-	<30	mg/kg	TM5/PM8/PM16
PAH Sum of 6 #	<0.22	<0.22	<0.22	<0.22	0.42	<0.22	4.35	3.03	2.32	0.61	-	-	-	<0.22	mg/kg	TM4/PM8
PAH Sum of 17	<0.64	<0.64	<0.64	<0.64	0.76	<0.64	11.37	12.10	8.35	1.06	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	0.027	<0.025	0.5	2	25	<0.025	mg/kg	TM30/PM17
Barium #	0.04	0.04	<0.03	<0.03	0.03	<0.03	0.18	0.34	0.16	0.04	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/PM0
Molybdenum #	0.02	0.05	0.03	0.05	0.03	0.05	0.09	0.09	0.16	0.03	0.5	10	30	<0.02	mg/kg	TM30/PM17
Nickel #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.06	0.08	0.08	<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	0.03	0.04	<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	<0.03	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	0.05	<0.03	4	50	200	<0.03	mg/kg	TM30/PM17
Total Dissolved Solids #	1310	1590	410	<350	780	1420	1070	800	650	<350	4000	60000	100000	<350	mg/kg	TM20/PM0
Dissolved Organic Carbon	<20	<20	<20	<20	40	<20	60	30	30	30	500	800	1000	<20	mg/kg	TM60/PM0
Mass of raw test portion	0.1087	0.1013	0.111	0.1061	0.112	0.1029	0.1026	0.1007	0.1016	0.1054	-	-	-		kg	NONE/PM17
Dry Matter Content Ratio	82.5	89.1	80.8	84.7	80.0	87.5	87.6	89.7	88.7	85.1	-	-	-	<0.1	%	NONE/PM4
Leachant Volume	0.881	0.889	0.879	0.884	0.878	0.887	0.887	0.89	0.889	0.884	-	-	-		l	NONE/PM17
Elate Volume	0.64	0.59	0.7	0.65	0.78	0.85	0.8	0.78	0.85	0.74	-	-	-		l	NONE/PM17
pH #	8.18	8.57	8.33	8.46	8.35	8.86	8.46	8.42	8.68	8.38	-	-	-	<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	<3	<3	<3	<3	<3	-	-	-	<3	mg/kg	TM173/PM0
Sulphate as SO4 #	<5	17	<5	<5	<5	<5	<5	<5	6	6	1000	20000	50000	<5	mg/kg	TM38/PM0
Chloride #	15	4	<3	<3	<3	7	6	7	10	<3	800	15000	25000	<3	mg/kg	TM38/PM0

Please see attached notes for all abbreviations and acronyms

Client Name: Ground Investigations Ireland
Reference: 19/01/8354
Location: Cornelscourt
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 Jones Environmental Laboratory consultant, Jones Environmental Laboratory cannot be responsible for inaccurate or unrepresentative sampling.

Signed on behalf of Jones Environmental Laboratory:



Ryan Butterworth
 Asbestos Team Leader

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	Date Of Analysis	Analysis	Result
19/1176	1	TP-01	0.50	2	02/02/2019	General Description (Bulk Analysis)	Soil/Stone
					02/02/2019	Asbestos Fibres	NAD
					02/02/2019	Asbestos ACM	NAD
					02/02/2019	Asbestos Type	NAD
					02/02/2019	Asbestos Level Screen	NAD
19/1176	1	TP-02	0.60	11	02/02/2019	General Description (Bulk Analysis)	Soil/Stone
					02/02/2019	Asbestos Fibres	NAD
					02/02/2019	Asbestos ACM	NAD
					02/02/2019	Asbestos Type	NAD
					02/02/2019	Asbestos Level Screen	NAD
19/1176	1	TP-03	0.50	20	02/02/2019	General Description (Bulk Analysis)	Soil/Stone
					02/02/2019	Asbestos Fibres	NAD
					02/02/2019	Asbestos ACM	NAD
					02/02/2019	Asbestos Type	NAD
					02/02/2019	Asbestos Level Screen	NAD
19/1176	1	TP-04	1.00	29	04/02/2019	General Description (Bulk Analysis)	Soil/Stones
					04/02/2019	Asbestos Fibres	NAD
					04/02/2019	Asbestos ACM	NAD
					04/02/2019	Asbestos Type	NAD
					04/02/2019	Asbestos Level Screen	NAD
19/1176	1	TP-05	0.80	38	04/02/2019	General Description (Bulk Analysis)	Soil/Stones
					04/02/2019	Asbestos Fibres	NAD
					04/02/2019	Asbestos ACM	NAD
					04/02/2019	Asbestos Type	NAD
					04/02/2019	Asbestos Level Screen	NAD
19/1176	1	TP-06	0.50	41	02/02/2019	General Description (Bulk Analysis)	Soil/Stone
					02/02/2019	Asbestos Fibres	NAD
					02/02/2019	Asbestos ACM	NAD
					02/02/2019	Asbestos Type	NAD
					02/02/2019	Asbestos Level Screen	NAD
19/1176	1	TP-06	1.50	44	02/02/2019	General Description (Bulk Analysis)	Soil/Stone
					02/02/2019	Asbestos Fibres	NAD
					02/02/2019	Asbestos ACM	NAD

Client Name: Ground Investigations Ireland
Reference: 19/01/8354
Location: Cornelscourt
Contact: Barry Sexton

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	Date Of Analysis	Analysis	Result
19/1176	1	TP-06	1.50	44	02/02/2019	Asbestos Type	NAD
					02/02/2019	Asbestos Level Screen	NAD
19/1176	1	TP-07	0.50	53	02/02/2019	General Description (Bulk Analysis)	Soil/Stone
					02/02/2019	Asbestos Fibres	NAD
					02/02/2019	Asbestos ACM	NAD
					02/02/2019	Asbestos Type	NAD
					02/02/2019	Asbestos Level Screen	NAD
19/1176	1	TP-07	1.50	56	04/02/2019	General Description (Bulk Analysis)	Soil/Stones
					04/02/2019	Asbestos Fibres	NAD
					04/02/2019	Asbestos ACM	NAD
					04/02/2019	Asbestos Type	NAD
					04/02/2019	Asbestos Level Screen	NAD
19/1176	1	TP-07	2.50	59	04/02/2019	General Description (Bulk Analysis)	Soil/Stones
					04/02/2019	Asbestos Fibres	NAD
					04/02/2019	Asbestos ACM	NAD
					04/02/2019	Asbestos Type	NAD
					04/02/2019	Asbestos Level Screen	NAD
19/1176	1	TP-07A	0.50	65	04/02/2019	General Description (Bulk Analysis)	Soil/Stones
					04/02/2019	Asbestos Fibres	NAD
					04/02/2019	Asbestos ACM	NAD
					04/02/2019	Asbestos Type	NAD
					04/02/2019	Asbestos Level Screen	NAD
19/1176	1	TP-07A	1.50	68	02/02/2019	General Description (Bulk Analysis)	Soil/Stone
					02/02/2019	Asbestos Fibres	NAD
					02/02/2019	Asbestos ACM	NAD
					02/02/2019	Asbestos Type	NAD
					02/02/2019	Asbestos Level Screen	NAD
19/1176	1	TP-08	0.50	74	02/02/2019	General Description (Bulk Analysis)	Soil/Stone
					02/02/2019	Asbestos Fibres	NAD
					02/02/2019	Asbestos ACM	NAD
					02/02/2019	Asbestos Type	NAD
					02/02/2019	Asbestos Level Screen	NAD
19/1176	1	TP-08	1.50	77	02/02/2019	General Description (Bulk Analysis)	Soil/Stone
					02/02/2019	Asbestos Fibres	NAD
					02/02/2019	Asbestos ACM	NAD
					02/02/2019	Asbestos Type	NAD
					02/02/2019	Asbestos Level Screen	NAD
19/1176	1	TP-09	0.50	82	02/02/2019	General Description (Bulk Analysis)	Soil/Stone
					02/02/2019	Asbestos Fibres	NAD
					02/02/2019	Asbestos ACM	NAD
					02/02/2019	Asbestos Type	NAD
					02/02/2019	Asbestos Level Screen	NAD
19/1176	1	TP-09	1.50	85	02/02/2019	General Description (Bulk Analysis)	Soil/Stone
					02/02/2019	Asbestos Fibres	NAD

Client Name: Ground Investigations Ireland
Reference: 19/01/8354
Location: Cornelscourt
Contact: Barry Sexton

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	Date Of Analysis	Analysis	Result
19/1176	1	TP-09	1.50	85	02/02/2019	Asbestos ACM	NAD
					02/02/2019	Asbestos Type	NAD
					02/02/2019	Asbestos Level Screen	NAD
19/1176	1	TP-14	1.00	95	02/02/2019	General Description (Bulk Analysis)	Soil/Stone
					02/02/2019	Asbestos Fibres	NAD
					02/02/2019	Asbestos ACM	NAD
					02/02/2019	Asbestos Type	NAD
					02/02/2019	Asbestos Level Screen	NAD
19/1176	1	TP-14	2.00	98	02/02/2019	General Description (Bulk Analysis)	Soil/Stone
					02/02/2019	Asbestos Fibres	NAD
					02/02/2019	Asbestos ACM	NAD
					02/02/2019	Asbestos Type	NAD
					02/02/2019	Asbestos Level Screen	NAD
19/1176	1	TP-14	3.00	101	02/02/2019	General Description (Bulk Analysis)	Soil/STONE
					02/02/2019	Asbestos Fibres	NAD
					02/02/2019	Asbestos ACM	NAD
					02/02/2019	Asbestos Type	NAD
					02/02/2019	Asbestos Level Screen	NAD
19/1176	1	TP-20	0.50	104	02/02/2019	General Description (Bulk Analysis)	Soil/Stone
					02/02/2019	Asbestos Fibres	NAD
					02/02/2019	Asbestos ACM	NAD
					02/02/2019	Asbestos Type	NAD
					02/02/2019	Asbestos Level Screen	NAD
19/1176	1	TP-20	1.50	107	02/02/2019	General Description (Bulk Analysis)	Soil/Stone
					02/02/2019	Asbestos Fibres	NAD
					02/02/2019	Asbestos ACM	NAD
					02/02/2019	Asbestos Type	NAD
					02/02/2019	Asbestos Level Screen	NAD

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	Analysis	Reason
No deviating sample report results for job 19/1176						

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

JE Job No.: 19/1176

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. 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.

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

Samples must be received in a condition appropriate to the requested analyses. All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. If this is not the case you will be informed and any test results that may be compromised highlighted on your deviating samples report.

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.

REPORTS FROM THE SOUTH AFRICA LABORATORY

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

Please include all sections of this report if it is reproduced

All solid results are expressed on a dry weight basis unless stated otherwise.

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.
++	Result outside calibration range, results should be considered as indicative only and are not accredited.
*	Analysis subcontracted to an Exova Jones Environmental 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

Appendix - Methods used for WAC (2003/33/EC)

JE Job No.: 19/1176

Leachate tests	
10l/kg; 4mm	I.S. EN 12457-2:2002 Specified particle size; water added to L/S ratio; capped; agitated for 24 ± 0.5 hours; eluate settled and filtered over 0.45 µm membrane filter.
Eluate analysis	
As	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Ba	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Cd	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Cr total	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Cu	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Hg	I.S. EN 13370 rec. EN 1483 (CVAAS)
Mo	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Ni	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Pb	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Sb	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Se	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Zn	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Chloride	I.S. EN 12506 rec. EN ISO 10304-part 1 (liquid chromatography of ions)
Fluoride	I.S. EN 12506 rec. EN ISO 10304-part 1 (liquid chromatography of ions)
Sulphate	I.S. EN 12506 rec. EN ISO 10304-part 1 (liquid chromatography of ions)
Phenol index	I.S. EN 13370 rec. ISO 6439 (4-Aminoantipyrine spectrometric methods after distillation)* (BY HPLC - Jones Env)
DOC	I.S. EN 1484
TDS	I.S. EN 15216
Compositional analysis	
TOC	I.S. EN 13137 Method B: carbonates removed with acid; TOC by combustion.
BTEX	GC-FID
PCB7**	I.S. EN 15308 analysis by GC-ECD.
Mineral oil	I.S. EN 14039 C10 to C40 analysis by GC-FID.
PAH17***	I.S. EN 15527 PAH17 analysis by GC-MS
Metals	I.S. EN 13657 - Aqua regia digestion: EN ISO 11885 (ICP-OES)
Other	
Dry matter	I.S. EN 14346 sample is dried to a constant mass in an oven at 105 ± 3 °C; Method B Water content by direct Karl-Fischer-titration and either volumetric or coulometric detection.
LOI	I.S. EN 15169 Difference in mass after heating in a furnace up to 550 ± 25 °C.
ANC	CEN/TS 15364 Determined by amounts of acid or base needed to cover the pH range
<p>Notes:</p> <p>*If not suitable due to LOD, precision, etc., any other suitable method can be used, e.g. AFS, ICP-MS</p> <p>**PCB-28, PCB-52, PCB-101, PCB-118, PCB-138, PCB-153 and PCB-180</p> <p>***Naphthalene, Acenaphthylene, Acenaphthene, Anthracene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(g,h,i)perylene, Benzo(a)pyrene, Chrysene, Coronene, Dibenzo(a,h)anthracene, Fluorene, Fluoranthene, Indeno(1,2,3-c,d)pyrene, Phenanthrene and Pyrene.</p>	

JE Job No: 19/1176

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 16 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 16 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 USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	PM16	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	
TM5	Modified USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	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 USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	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

JE Job No: 19/1176

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 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		AD	Yes

JE Job No: 19/1176

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
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
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			AR	Yes
NONE	No Method Code	PM17	Modified method 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 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	

JE Job No: 19/1176

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
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	



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Attention : Barry Sexton
Date : 15th February, 2019
Your reference : 8354-01-19
Our reference : Test Report 19/1246 Batch 1
Location : Cornelscourt
Date samples received : 25th January, 2019
Status : Final report
Issue : 1

Eighteen samples were received for analysis on 25th January, 2019 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.

Where Waste Acceptance Criteria Suite (EC Decision of 19 December 2002 (2003/33/EC)) has been requested, all analyses have been performed using the relevant EN methods where they exist.

Compiled By:

Lucas Halliwell
Project Co-ordinator

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1246

Report : Solid

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

J E 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	TP - 11	TP - 11	TP - 11	TP - 12	TP - 12	TP - 12	TP - 13	TP - 13	TP - 13	TP - 16			
Depth	1.00	2.00	3.00	0.50	1.50	2.50	0.50	1.50	2.50	0.50			
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	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019			
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	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	LOD/LOR	Units	Method No.
Antimony	<1	2	1	2	2	2	2	3	2	1	<1	mg/kg	TM30/PM15
Arsenic #	8.0	9.8	8.8	13.2	10.1	10.8	8.6	20.8	10.7	7.3	<0.5	mg/kg	TM30/PM15
Barium #	52	73	60	91	69	61	154	63	92	132	<1	mg/kg	TM30/PM15
Cadmium #	2.1	2.0	1.6	2.2	1.8	1.2	2.1	3.0	2.3	1.1	<0.1	mg/kg	TM30/PM15
Chromium #	40.4	37.1	47.8	69.0	41.8	65.3	66.2	45.3	46.8	88.6	<0.5	mg/kg	TM30/PM15
Copper #	18	33	28	34	28	14	40	38	33	31	<1	mg/kg	TM30/PM15
Lead #	12	16	15	31	16	15	28	20	21	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 #	3.6	3.9	4.1	5.4	3.8	3.7	3.2	4.3	4.5	2.3	<0.1	mg/kg	TM30/PM15
Nickel #	25.0	40.5	34.4	45.0	33.8	46.8	49.6	50.4	41.9	25.6	<0.7	mg/kg	TM30/PM15
Selenium #	<1	1	1	1	1	1	1	2	2	<1	<1	mg/kg	TM30/PM15
Zinc #	77	92	76	110	83	75	107	190	100	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	99	83	90	95	85	89	107	90	95	101	<0	%	TM4/PM8
Mineral Oil (C10-C40)	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	mg/kg	TM5/PM8/PM16

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1246

Report : Solid

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

J E 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	TP - 11	TP - 11	TP - 11	TP - 12	TP - 12	TP - 12	TP - 13	TP - 13	TP - 13	TP - 16			
Depth	1.00	2.00	3.00	0.50	1.50	2.50	0.50	1.50	2.50	0.50			
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	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019			
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	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	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	<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	<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	<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	<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	<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	<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	<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	<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	<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	<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	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
Benzene #	<5	<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	<5	ug/kg	TM31/PM12
Ethylbenzene #	<5	<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	<5	ug/kg	TM31/PM12
o-Xylene #	<5	<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	<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

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1246

Report : Solid

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

J E 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	TP - 11	TP - 11	TP - 11	TP - 12	TP - 12	TP - 12	TP - 13	TP - 13	TP - 13	TP - 16			
Depth	1.00	2.00	3.00	0.50	1.50	2.50	0.50	1.50	2.50	0.50			
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	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019			
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	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	LOD/LOR	Units	Method No.
Natural Moisture Content	15.5	10.7	13.4	23.0	13.6	12.1	24.9	15.1	14.0	22.3	<0.1	%	PM4/PM0
Moisture Content (% Wet Weight)	13.4	9.7	11.8	18.7	12.0	10.8	20.0	13.1	12.3	18.2	<0.1	%	PM4/PM0
Hexavalent Chromium #	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	mg/kg	TM38/PM20
Sulphate as SO4 (2:1 Ext) #	-	-	-	-	0.0075	-	-	-	0.0099	-	<0.0015	g/l	TM38/PM20
Chromium III	40.4	37.1	47.8	69.0	41.8	65.3	66.2	45.3	46.8	88.6	<0.5	mg/kg	NONE/NONE
Total Organic Carbon #	0.22	0.35	0.27	1.01	0.29	0.15	1.18	0.34	0.49	0.95	<0.02	%	TM21/PM24
pH #	8.64	8.57	8.71	8.35	8.73	8.69	8.24	8.53	8.61	8.22	<0.01	pH units	TM73/PM11
Mass of raw test portion	0.1027	0.1047	0.1033	0.1094	0.1042	0.1026	0.1135	0.1036	0.1005	0.1098		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

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1246

Report : Solid

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

J E Sample No.	31-33	34-36	37-39	40-42	43-45	46-48	49-51	52-54						
Sample ID	TP - 16	TP - 16	TP - 17	TP - 17	TP - 17	TP - 21	TP - 21	TP - 21						
Depth	1.50	2.50	0.50	1.50	2.50	0.50	1.50	2.50						
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	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019						
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil						
Batch Number	1	1	1	1	1	1	1	1						
Date of Receipt	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019						
										LOD/LOR	Units	Method No.	Please see attached notes for all abbreviations and acronyms	
Antimony	2	2	3	2	<1	2	2	2		<1	mg/kg	TM30/PM15		
Arsenic #	9.7	10.0	16.2	12.1	5.6	8.5	10.7	11.4		<0.5	mg/kg	TM30/PM15		
Barium #	70	72	96	70	65	129	86	92		<1	mg/kg	TM30/PM15		
Cadmium #	1.9	2.3	3.1	2.1	1.1	1.3	2.0	2.3		<0.1	mg/kg	TM30/PM15		
Chromium #	55.1	56.2	68.0	44.3	43.8	104.6	55.3	53.7		<0.5	mg/kg	TM30/PM15		
Copper #	31	29	44	32	26	41	34	34		<1	mg/kg	TM30/PM15		
Lead #	16	17	36	19	17	22	18	22		<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 #	3.5	3.8	6.7	4.9	2.5	2.9	4.4	4.5		<0.1	mg/kg	TM30/PM15		
Nickel #	35.5	36.8	65.3	44.7	38.8	29.6	44.0	42.8		<0.7	mg/kg	TM30/PM15		
Selenium #	1	1	2	1	<1	<1	1	2		<1	mg/kg	TM30/PM15		
Zinc #	88	85	136	106	82	77	95	103		<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	0.05	<0.03	<0.03		<0.03	mg/kg	TM4/PM8		
Pyrene #	<0.03	<0.03	<0.03	<0.03	<0.03	0.05	<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	0.05	<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	97	85	98	103	101	99	95	98		<0	%	TM4/PM8		
Mineral Oil (C10-C40)	<30	<30	<30	<30	<30	<30	<30	<30		<30	mg/kg	TM5/PM8/PM16		

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1246

Report : Solid

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

J E Sample No.	31-33	34-36	37-39	40-42	43-45	46-48	49-51	52-54					
Sample ID	TP - 16	TP - 16	TP - 17	TP - 17	TP - 17	TP - 21	TP - 21	TP - 21					
Depth	1.50	2.50	0.50	1.50	2.50	0.50	1.50	2.50					
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	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019					
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil					
Batch Number	1	1	1	1	1	1	1	1					
Date of Receipt	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019					
									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	mg/kg	TM36/PM12		
>C6-C8 #	<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	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/PM12/PM15		
>C6-C10	<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	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	<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	mg/kg	TM36/PM12		
>EC8-EC10 #	<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	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/PM12/PM15		
Total aliphatics and aromatics(C5-40)	<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	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	<5	ug/kg	TM31/PM12		
Benzene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM31/PM12		
Toluene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM31/PM12		
Ethylbenzene #	<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	ug/kg	TM31/PM12		
o-Xylene #	<5	<5	<5	<5	<5	<5	<5	<5	<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		

Please see attached notes for all abbreviations and acronyms

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1246

Report : Solid

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

J E Sample No.	31-33	34-36	37-39	40-42	43-45	46-48	49-51	52-54				
Sample ID	TP - 16	TP - 16	TP - 17	TP - 17	TP - 17	TP - 21	TP - 21	TP - 21				
Depth	1.50	2.50	0.50	1.50	2.50	0.50	1.50	2.50				
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	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019				
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil				
Batch Number	1	1	1	1	1	1	1	1				
Date of Receipt	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019				
										LOD/LOR	Units	Method No.
Natural Moisture Content	14.9	14.2	24.6	12.2	12.8	23.1	12.8	14.9		<0.1	%	PM4/PM0
Moisture Content (% Wet Weight)	13.0	12.4	19.8	10.9	11.4	18.8	11.4	13.0		<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
Sulphate as SO4 (2:1 Ext) #	-	0.0131	-	-	0.0071	-	-	-		<0.0015	g/l	TM38/PM20
Chromium III	55.1	56.2	68.0	44.3	43.8	104.6	55.3	53.7		<0.5	mg/kg	NONE/NONE
Total Organic Carbon #	0.29	0.28	1.00	0.30	0.33	1.40	0.36	0.36		<0.02	%	TM21/PM24
pH #	8.58	8.63	8.26	8.62	8.76	8.21	8.57	8.67		<0.01	pH units	TM73/PM11
Mass of raw test portion	0.1007	0.1066	0.1115	0.1029	0.1008	0.1115	0.1049	0.1036			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

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1246

Report : CEN 10:1 1 Batch

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

J E 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	TP - 11	TP - 11	TP - 11	TP - 12	TP - 12	TP - 12	TP - 13	TP - 13	TP - 13	TP - 16			
Depth	1.00	2.00	3.00	0.50	1.50	2.50	0.50	1.50	2.50	0.50			
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	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019			
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	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	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	0.005	<0.003	<0.003	0.003	0.004	<0.003	<0.003	<0.003	<0.003	<0.003	mg/l	TM30/PM17
Dissolved Barium (A10) #	<0.03	0.05	<0.03	<0.03	<0.03	0.04	<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 #	0.007	0.017	0.005	0.004	0.007	0.007	0.003	0.004	0.007	<0.002	<0.002	mg/l	TM30/PM17
Dissolved Molybdenum (A10) #	0.07	0.17	0.05	0.04	0.07	0.07	0.03	0.04	0.07	<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 #	<0.003	<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	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	mg/l	TM173/PM0
Fluoride	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	mg/kg	TM173/PM0
Sulphate as SO4 #	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	mg/l	TM38/PM0
Sulphate as SO4 #	<5	<5	<5	<5	<5	6	<5	<5	<5	<5	<5	mg/kg	TM38/PM0
Chloride #	0.4	<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 #	4	<3	<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	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	8.07	8.30	8.02	8.14	8.14	8.01	8.10	8.20	8.14	7.96	<0.01	pH units	TM73/PM0
Total Dissolved Solids #	165	189	130	283	115	102	184	160	94	78	<35	mg/l	TM20/PM0
Total Dissolved Solids #	1649	1889	1300	2829	1150	1020	1840	1599	940	780	<350	mg/kg	TM20/PM0

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1246

Report : CEN 10:1 1 Batch

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

J E Sample No.	31-33	34-36	37-39	40-42	43-45	46-48	49-51	52-54					
Sample ID	TP - 16	TP - 16	TP - 17	TP - 17	TP - 17	TP - 21	TP - 21	TP - 21					
Depth	1.50	2.50	0.50	1.50	2.50	0.50	1.50	2.50					
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	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019					
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil					
Batch Number	1	1	1	1	1	1	1	1					
Date of Receipt	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019					
										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	0.004	<0.003		<0.003	mg/l	TM30/PM17	
Dissolved Barium (A10) #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.04	<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 #	0.005	0.007	0.002	0.008	0.014	<0.002	0.006	0.007		<0.002	mg/l	TM30/PM17	
Dissolved Molybdenum (A10) #	0.05	0.07	0.02	0.08	0.14	<0.02	0.06	0.07		<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 CVA#	<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 CVA#	<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	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3		<0.3	mg/l	TM173/PM0	
Fluoride	<3	<3	<3	<3	<3	<3	<3	<3		<3	mg/kg	TM173/PM0	
Sulphate as SO4 #	<0.5	0.6	1.3	1.3	1.3	1.3	1.4	2.1		<0.5	mg/l	TM38/PM0	
Sulphate as SO4 #	<5	6	13	13	13	13	14	21		<5	mg/kg	TM38/PM0	
Chloride #	0.4	0.7	0.9	0.8	6.9	0.9	0.9	0.8		<0.3	mg/l	TM38/PM0	
Chloride #	4	7	9	8	69	9	9	8		<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	7.67	7.01	7.68	8.28	8.46	8.13	8.28	8.47		<0.01	pH units	TM73/PM0	
Total Dissolved Solids #	168	<35	<35	<35	77	174	65	35		<35	mg/l	TM20/PM0	
Total Dissolved Solids #	1680	<350	<350	<350	770	1740	650	<350		<350	mg/kg	TM20/PM0	

Please see attached notes for all abbreviations and acronyms

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1246

Report : EN12457_2

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

J E 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	TP - 11	TP - 11	TP - 11	TP - 12	TP - 12	TP - 12	TP - 13	TP - 13	TP - 13	TP - 16	Inert	Stable Non-reactive	Hazardous	LOD LOR	Units	Method No.
Depth	1.00	2.00	3.00	0.50	1.50	2.50	0.50	1.50	2.50	0.50						
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	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019						
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	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019						
Solid Waste Analysis																
Total Organic Carbon #	0.22	0.35	0.27	1.01	0.29	0.15	1.18	0.34	0.49	0.95	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	<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 #	<0.03	0.05	<0.03	<0.03	<0.03	0.04	<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/PM0
Molybdenum #	0.07	0.17	0.05	0.04	0.07	0.07	0.03	0.04	0.07	<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	<0.02	<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	<0.03	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 #	1649	1889	1300	2829	1150	1020	1840	1599	940	780	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	0.1027	0.1047	0.1033	0.1094	0.1042	0.1026	0.1135	0.1036	0.1005	0.1098	-	-	-		kg	NONE/PM17
Dry Matter Content Ratio	87.8	85.9	87.5	82.0	86.6	87.6	79.0	86.8	89.4	81.6	-	-	-	<0.1	%	NONE/PM4
Leachant Volume	0.887	0.885	0.887	0.88	0.886	0.887	0.876	0.886	0.889	0.88	-	-	-		l	NONE/PM17
Eluate Volume	0.82	0.65	0.7	0.75	0.7	0.85	0.71	0.61	0.68	0.7	-	-	-		l	NONE/PM17
pH #	8.64	8.57	8.71	8.35	8.73	8.69	8.24	8.53	8.61	8.22	-	-	-	<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	<3	<3	<3	<3	<3	-	-	-	<3	mg/kg	TM173/PM0
Sulphate as SO4 #	<5	<5	<5	<5	<5	6	<5	<5	<5	<5	1000	20000	50000	<5	mg/kg	TM38/PM0
Chloride #	4	<3	<3	<3	<3	<3	<3	<3	<3	<3	800	15000	25000	<3	mg/kg	TM38/PM0

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/1246

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

J E Sample No.	31-33	34-36	37-39	40-42	43-45	46-48	49-51	52-54							
Sample ID	TP - 16	TP - 16	TP - 17	TP - 17	TP - 17	TP - 21	TP - 21	TP - 21							
Depth	1.50	2.50	0.50	1.50	2.50	0.50	1.50	2.50							
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	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019	23/01/2019							
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil							
Batch Number	1	1	1	1	1	1	1	1							
Date of Receipt	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019	25/01/2019							
										Inert	Stable Non-reactive	Hazardous	LOD LOR	Units	Method No.
Solid Waste Analysis															
Total Organic Carbon #	0.29	0.28	1.00	0.30	0.33	1.40	0.36	0.36		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		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	0.04	<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 #	0.05	0.07	0.02	0.08	0.14	<0.02	0.06	0.07		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 #	1680	<350	<350	<350	770	1740	650	<350		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	0.1007	0.1066	0.1115	0.1029	0.1008	0.1115	0.1049	0.1036		-	-	-		kg	NONE/PM17
Dry Matter Content Ratio	88.9	84.4	80.8	87.0	89.0	81.0	85.8	86.6		-	-	-	<0.1	%	NONE/PM4
Leachant Volume	0.889	0.883	0.879	0.887	0.889	0.879	0.885	0.886		-	-	-		l	NONE/PM17
Eluate Volume	0.62	0.7	0.65	0.7	0.71	0.8	0.75	0.7		-	-	-		l	NONE/PM17
pH #	8.58	8.63	8.26	8.62	8.76	8.21	8.57	8.67		-	-	-	<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	<3	<3	<3	<3	<3	<3	<3		-	-	-	<3	mg/kg	TM173/PM0
Sulphate as SO4 #	<5	6	13	13	13	13	14	21		1000	20000	50000	<5	mg/kg	TM38/PM0
Chloride #	4	7	9	8	69	9	9	8		800	15000	25000	<3	mg/kg	TM38/PM0

Please see attached notes for all abbreviations and acronyms

Client Name: Ground Investigations Ireland
Reference: 19/01/8354
Location: Cornelscourt
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 Jones Environmental Laboratory consultant, Jones Environmental Laboratory cannot be responsible for inaccurate or unrepresentative sampling.

Signed on behalf of Jones Environmental Laboratory:



Ryan Butterworth
 Asbestos Team Leader

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	Date Of Analysis	Analysis	Result
19/1246	1	TP - 11	1.00	2	01/02/2019	General Description (Bulk Analysis)	Soil/Stone
					01/02/2019	Asbestos Fibres	NAD
					01/02/2019	Asbestos ACM	NAD
					01/02/2019	Asbestos Type	NAD
					01/02/2019	Asbestos Level Screen	NAD
19/1246	1	TP - 11	2.00	5	01/02/2019	General Description (Bulk Analysis)	Soil/Stone
					01/02/2019	Asbestos Fibres	NAD
					01/02/2019	Asbestos ACM	NAD
					01/02/2019	Asbestos Type	NAD
					01/02/2019	Asbestos Level Screen	NAD
19/1246	1	TP - 11	3.00	8	01/02/2019	General Description (Bulk Analysis)	Soil/Stone
					01/02/2019	Asbestos Fibres	NAD
					01/02/2019	Asbestos ACM	NAD
					01/02/2019	Asbestos Type	NAD
					01/02/2019	Asbestos Level Screen	NAD
19/1246	1	TP - 12	0.50	11	01/02/2019	General Description (Bulk Analysis)	Soil/Stone
					01/02/2019	Asbestos Fibres	NAD
					01/02/2019	Asbestos ACM	NAD
					01/02/2019	Asbestos Type	NAD
					01/02/2019	Asbestos Level Screen	NAD
19/1246	1	TP - 12	1.50	14	01/02/2019	General Description (Bulk Analysis)	Soil/Stone
					01/02/2019	Asbestos Fibres	NAD
					01/02/2019	Asbestos ACM	NAD
					01/02/2019	Asbestos Type	NAD
					01/02/2019	Asbestos Level Screen	NAD
19/1246	1	TP - 12	2.50	17	01/02/2019	General Description (Bulk Analysis)	Soil/Stone
					01/02/2019	Asbestos Fibres	NAD
					01/02/2019	Asbestos ACM	NAD
					01/02/2019	Asbestos Type	NAD
					01/02/2019	Asbestos Level Screen	NAD
19/1246	1	TP - 13	0.50	20	01/02/2019	General Description (Bulk Analysis)	soil-stones
					01/02/2019	Asbestos Fibres	NAD
					01/02/2019	Asbestos ACM	NAD

Client Name: Ground Investigations Ireland
Reference: 19/01/8354
Location: Cornelscourt
Contact: Barry Sexton

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	Date Of Analysis	Analysis	Result
19/1246	1	TP - 13	0.50	20	01/02/2019	Asbestos Type	NAD
					01/02/2019	Asbestos Level Screen	NAD
19/1246	1	TP - 13	1.50	23	01/02/2019	General Description (Bulk Analysis)	soil-stones
					01/02/2019	Asbestos Fibres	NAD
					01/02/2019	Asbestos ACM	NAD
					01/02/2019	Asbestos Type	NAD
					01/02/2019	Asbestos Level Screen	NAD
19/1246	1	TP - 13	2.50	26	01/02/2019	General Description (Bulk Analysis)	soil-stones
					01/02/2019	Asbestos Fibres	NAD
					01/02/2019	Asbestos ACM	NAD
					01/02/2019	Asbestos Type	NAD
					01/02/2019	Asbestos Level Screen	NAD
19/1246	1	TP - 16	0.50	29	01/02/2019	General Description (Bulk Analysis)	Soil/Stones
					01/02/2019	Asbestos Fibres	NAD
					01/02/2019	Asbestos ACM	NAD
					01/02/2019	Asbestos Type	NAD
					01/02/2019	Asbestos Level Screen	NAD
19/1246	1	TP - 16	1.50	32	01/02/2019	General Description (Bulk Analysis)	Soil/Stones
					01/02/2019	Asbestos Fibres	NAD
					01/02/2019	Asbestos ACM	NAD
					01/02/2019	Asbestos Type	NAD
					01/02/2019	Asbestos Level Screen	NAD
19/1246	1	TP - 16	2.50	35	01/02/2019	General Description (Bulk Analysis)	Soil/Stones
					01/02/2019	Asbestos Fibres	NAD
					01/02/2019	Asbestos ACM	NAD
					01/02/2019	Asbestos Type	NAD
					01/02/2019	Asbestos Level Screen	NAD
19/1246	1	TP - 17	0.50	38	01/02/2019	General Description (Bulk Analysis)	soil-stones
					01/02/2019	Asbestos Fibres	NAD
					01/02/2019	Asbestos ACM	NAD
					01/02/2019	Asbestos Type	NAD
					01/02/2019	Asbestos Level Screen	NAD
19/1246	1	TP - 17	1.50	41	01/02/2019	General Description (Bulk Analysis)	soil-stones
					01/02/2019	Asbestos Fibres	NAD
					01/02/2019	Asbestos ACM	NAD
					01/02/2019	Asbestos Type	NAD
					01/02/2019	Asbestos Level Screen	NAD
19/1246	1	TP - 17	2.50	44	01/02/2019	General Description (Bulk Analysis)	Soil/Stones
					01/02/2019	Asbestos Fibres	NAD
					01/02/2019	Asbestos ACM	NAD
					01/02/2019	Asbestos Type	NAD
					01/02/2019	Asbestos Level Screen	NAD
19/1246	1	TP - 21	0.50	47	01/02/2019	General Description (Bulk Analysis)	soil.stones
					01/02/2019	Asbestos Fibres	NAD

Client Name: Ground Investigations Ireland
Reference: 19/01/8354
Location: Cornelscourt
Contact: Barry Sexton

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	Date Of Analysis	Analysis	Result
19/1246	1	TP - 21	0.50	47	01/02/2019	Asbestos ACM	NAD
					01/02/2019	Asbestos Type	NAD
					01/02/2019	Asbestos Level Screen	NAD
19/1246	1	TP - 21	1.50	50	01/02/2019	General Description (Bulk Analysis)	soil.stones
					01/02/2019	Asbestos Fibres	NAD
					01/02/2019	Asbestos ACM	NAD
					01/02/2019	Asbestos Type	NAD
					01/02/2019	Asbestos Level Screen	NAD
19/1246	1	TP - 21	2.50	53	01/02/2019	General Description (Bulk Analysis)	soil.stones
					01/02/2019	Asbestos Fibres	NAD
					01/02/2019	Asbestos ACM	NAD
					01/02/2019	Asbestos Type	NAD
					01/02/2019	Asbestos Level Screen	NAD

Client Name: Ground Investigations Ireland

Reference: 8354-01-19

Location: Cornelscourt

Contact: Barry Sexton

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	Analysis	Reason
No deviating sample report results for job 19/1246						

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

JE Job No.: 19/1246

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. 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.

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

Samples must be received in a condition appropriate to the requested analyses. All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. If this is not the case you will be informed and any test results that may be compromised highlighted on your deviating samples report.

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.

REPORTS FROM THE SOUTH AFRICA LABORATORY

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

Please include all sections of this report if it is reproduced

All solid results are expressed on a dry weight basis unless stated otherwise.

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.
++	Result outside calibration range, results should be considered as indicative only and are not accredited.
*	Analysis subcontracted to an Exova Jones Environmental 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

Appendix - Methods used for WAC (2003/33/EC)

JE Job No.: 19/1246

Leachate tests	
10l/kg; 4mm	I.S. EN 12457-2:2002 Specified particle size; water added to L/S ratio; capped; agitated for 24 ± 0.5 hours; eluate settled and filtered over 0.45 µm membrane filter.
Eluate analysis	
As	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Ba	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Cd	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Cr total	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Cu	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Hg	I.S. EN 13370 rec. EN 1483 (CVAAS)
Mo	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Ni	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Pb	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Sb	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Se	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Zn	I.S. EN 12506 : EN ISO 11885 (ICP-OES)
Chloride	I.S. EN 12506 rec. EN ISO 10304-part 1 (liquid chromatography of ions)
Fluoride	I.S. EN 12506 rec. EN ISO 10304-part 1 (liquid chromatography of ions)
Sulphate	I.S. EN 12506 rec. EN ISO 10304-part 1 (liquid chromatography of ions)
Phenol index	I.S. EN 13370 rec. ISO 6439 (4-Aminoantipyrine spectrometric methods after distillation)* (BY HPLC - Jones Env)
DOC	I.S. EN 1484
TDS	I.S. EN 15216
Compositional analysis	
TOC	I.S. EN 13137 Method B: carbonates removed with acid; TOC by combustion.
BTEX	GC-FID
PCB7**	I.S. EN 15308 analysis by GC-ECD.
Mineral oil	I.S. EN 14039 C10 to C40 analysis by GC-FID.
PAH17***	I.S. EN 15527 PAH17 analysis by GC-MS
Metals	I.S. EN 13657 - Aqua regia digestion: EN ISO 11885 (ICP-OES)
Other	
Dry matter	I.S. EN 14346 sample is dried to a constant mass in an oven at 105 ± 3 °C; Method B Water content by direct Karl-Fischer-titration and either volumetric or coulometric detection.
LOI	I.S. EN 15169 Difference in mass after heating in a furnace up to 550 ± 25 °C.
ANC	CEN/TS 15364 Determined by amounts of acid or base needed to cover the pH range
<p>Notes:</p> <p>*If not suitable due to LOD, precision, etc., any other suitable method can be used, e.g. AFS, ICP-MS</p> <p>**PCB-28, PCB-52, PCB-101, PCB-118, PCB-138, PCB-153 and PCB-180</p> <p>***Naphthalene, Acenaphthylene, Acenaphthene, Anthracene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(g,h,i)perylene, Benzo(a)pyrene, Chrysene, Coronene, Dibenzo(a,h)anthracene, Fluorene, Fluoranthene, Indeno(1,2,3-c,d)pyrene, Phenanthrene and Pyrene.</p>	

JE Job No: 19/1246

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 16 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 16 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 USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	PM16	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	
TM5	Modified USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	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 USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	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

JE Job No: 19/1246

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 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		AD	Yes

JE Job No: 19/1246

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
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
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			AR	Yes
NONE	No Method Code	PM17	Modified method 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 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	

JE Job No: 19/1246

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
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	

Client Name: Ground Investigations Ireland
 Reference: 8354-01-19
 Location: Cornelscourt
 Contact: Barry Sexton
 JE Job No.: 19/4257

Report: Liquid

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

JE Sample No.	1-7	8-14	15-21	22-28																																																							
Sample ID	BH03	BH07	BH08	BH11																																																							
Depth	7.94	2.28	4.13	5.49																																																							
COC No / misc																																																											
Containers	V H HN HCL P G	V H HN HCL P G	V H HN HCL P G	V H HN HCL P G																																																							
Sample Date	13/03/2019	13/03/2019	13/03/2019	13/03/2019																																																							
Sample Type	Ground Water	Ground Water	Ground Water	Ground Water																																																							
Batch Number	1	1	1	1																																																							
Date of Receipt	14/03/2019	14/03/2019	14/03/2019	14/03/2019																																																							
Dissolved Arsenic #	4.9	2.9	4.0	23.5																																		<2.5	ug/l	TM30/PM14																			
Dissolved Boron	32	38	49	38																																			<12	ug/l	TM30/PM14																		
Dissolved Cadmium #	<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	ug/l	TM30/PM14																		
Dissolved Copper #	<7	13	<7	<7																																		<7	ug/l	TM30/PM14																			
Dissolved Lead #	<5	<5	<5	<5																																		<5	ug/l	TM30/PM14																			
Dissolved Manganese #	571	480	194	599																																		<2	ug/l	TM30/PM14																			
Dissolved Mercury #	<1	<1	<1	<1																																			<1	ug/l	TM30/PM14																		
Dissolved Nickel #	3	59	16	8																																		<2	ug/l	TM30/PM14																			
Dissolved Phosphorus #	11	<5	<5	<5																																		<5	ug/l	TM30/PM14																			
Dissolved Potassium #	5.6	7.5	11.6	8.8																																		<0.1	mg/l	TM30/PM14																			
Dissolved Selenium #	<3	<3	<3	<3																																		<3	ug/l	TM30/PM14																			
Dissolved Zinc #	<3	3	<3	<3																																		<3	ug/l	TM30/PM14																			
PAH MS																																																											
Naphthalene #	<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	ug/l	TM4/PM30																
Acenaphthene #	<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	ug/l	TM4/PM30																	
Phenanthrene #	<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	ug/l	TM4/PM30																	
Fluoranthene #	<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	ug/l	TM4/PM30																		
Benzo(a)anthracene #	<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	ug/l	TM4/PM30																		
Benzo(b)fluoranthene #	<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	ug/l	TM4/PM30																			
Indeno(123cd)pyrene #	<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	ug/l	TM4/PM30																			
Benzo(ghi)perylene #	<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	ug/l	TM4/PM30																			
Benzo(b)fluoranthene	<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	ug/l	TM4/PM30																			
PAH Surrogate % Recovery	79	73	78	71																																		<0	%	TM4/PM30																			

Please see attached notes for all abbreviations and acronyms

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton
JE Job No.: 19/4257

Report : Liquid

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

J E Sample No.	1-7	8-14	15-21	22-28											
Sample ID	BH03	BH07	BH08	BH11											
Depth	7.94	2.28	4.13	5.49											
COC No / misc															
Containers	V H HN HCL P G	V H HN HCL P G	V H HN HCL P G	V H HN HCL P G											
Sample Date	13/03/2019	13/03/2019	13/03/2019	13/03/2019											
Sample Type	Ground Water	Ground Water	Ground Water	Ground Water											
Batch Number	1	1	1	1											
Date of Receipt	14/03/2019	14/03/2019	14/03/2019	14/03/2019											
													LOD/LOR	Units	Method No.
TPH CWG															
Aliphatics															
>C5-C6 #	<10	<10	<10	35									<10	ug/l	TM36/PM12
>C6-C8 #	<10	<10	<10	63									<10	ug/l	TM36/PM12
>C8-C10 #	<10	<10	<10	16									<10	ug/l	TM36/PM12
>C10-C12 #	<5	<5	<5	<5									<5	ug/l	TM5/PM16/PM30
>C12-C16 #	<10	<10	<10	<10									<10	ug/l	TM5/PM16/PM30
>C16-C21 #	<10	<10	<10	<10									<10	ug/l	TM5/PM16/PM30
>C21-C35 #	<10	<10	<10	<10									<10	ug/l	TM5/PM16/PM30
Total aliphatics C5-35 #	<10	<10	<10	114									<10	ug/l	TM5/PM16/PM30
Aromatics															
>C5-EC7 #	<10	<10	<10	<10									<10	ug/l	TM36/PM12
>EC7-EC8 #	<10	<10	<10	<10									<10	ug/l	TM36/PM12
>EC8-EC10 #	<10	<10	<10	<10									<10	ug/l	TM36/PM12
>EC10-EC12 #	<5	<5	<5	<5									<5	ug/l	TM5/PM16/PM30
>EC12-EC16 #	<10	<10	<10	<10									<10	ug/l	TM5/PM16/PM30
>EC16-EC21 #	<10	<10	<10	<10									<10	ug/l	TM5/PM16/PM30
>EC21-EC35 #	<10	<10	<10	<10									<10	ug/l	TM5/PM16/PM30
Total aromatics C5-35 #	<10	<10	<10	<10									<10	ug/l	TM5/PM16/PM30
Total aliphatics and aromatics(C5-35) #	<10	<10	<10	114									<10	ug/l	TM5/PM16/PM30
MTBE #	<5	<5	<5	25									<5	ug/l	TM31/PM12
Benzene #	<5	<5	<5	<5									<5	ug/l	TM31/PM12
Toluene #	<5	<5	<5	<5									<5	ug/l	TM31/PM12
Ethylbenzene #	<5	<5	<5	<5									<5	ug/l	TM31/PM12
m/p-Xylene #	<5	<5	<5	<5									<5	ug/l	TM31/PM12
o-Xylene #	<5	<5	<5	<5									<5	ug/l	TM31/PM12
Phenol #	<0.01	<0.01	<0.01	<0.01									<0.01	mg/l	TM26/PM0
Sulphate as SO4 #	24.9	38.1	14.3	17.2									<0.5	mg/l	TM38/PM0
Chloride #	20.0	37.2	23.7	17.9									<0.3	mg/l	TM38/PM0
Nitrate as NO3 #	<0.2	5.4	5.6	2.2									<0.2	mg/l	TM38/PM0
Nitrite as NO2 #	0.15	1.03	<0.02	0.08									<0.02	mg/l	TM38/PM0
Total Cyanide #	<0.01	<0.01	<0.01	<0.01									<0.01	mg/l	TM89/PM0
Ammoniacal Nitrogen as NH3 #	0.37	0.42	0.06	0.11									<0.03	mg/l	TM38/PM0
Hexavalent Chromium	<0.006	<0.006	<0.006	<0.006									<0.006	mg/l	TM38/PM0
Electrical Conductivity @25C #	292	694	641	399									<2	uS/cm	TM76/PM0
pH #	8.44	7.54	7.59	7.85									<0.01	pH units	TM73/PM0

Please see attached notes for all abbreviations and acronyms

Client Name: Ground Investigations Ireland
Reference: 8354-01-19
Location: Cornelscourt
Contact: Barry Sexton

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	Analysis	Reason
No deviating sample report results for job 19/4257						

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

JE Job No.: 19/4257

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. 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.

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

Samples must be received in a condition appropriate to the requested analyses. All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. If this is not the case you will be informed and any test results that may be compromised highlighted on your deviating samples report.

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.

REPORTS FROM THE SOUTH AFRICA LABORATORY

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

Please include all sections of this report if it is reproduced

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.
++	Result outside calibration range, results should be considered as indicative only and are not accredited.
*	Analysis subcontracted to an Exova Jones Environmental 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

JE Job No: 19/4257

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 8270 method for the solvent extraction and determination of 16 PAHs by GC-MS.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.				
TM4	Modified USEPA 8270 method for the solvent extraction and determination of 16 PAHs by GC-MS.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.	Yes			
TM5	Modified USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	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/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.	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	PM14	Analysis of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered for dissolved metals and acidified if required.				
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	PM14	Analysis of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered for dissolved metals and acidified if required.	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			
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 GC/FID 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			
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.				

JE Job No: 19/4257

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
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			
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.	Yes			
TM76	Modified US EPA method 120.1. Determination of Specific Conductance by Metrohm automated probe analyser.	PM0	No preparation is required.	Yes			
TM89	Modified USEPA method OIA-1667. 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			

APPENDIX 10 – HazWasteOnLine™ Report

Waste Classification Report



C7FYH-8S2DA-LWBBE

Job name

Cornelscourt TP Data File 1

Description/Comments

Project

8354-01-19

Site

Cornelscourt

Related Documents

#	Name	Description
1	Cornelscourt TP Data File 1.hwol	.hwol file used to create the Job

Waste Stream Template

Example waste stream template for contaminated soils

Classified by

Name:
Barry Sexton
Date:
11 Feb 2019 14:53 GMT
Telephone:
00353876119640

Company:
Ground Investigations Ireland
Catherinestown House,
Hazelhatch Road, Newcastle
Co. Dublin

Report

Created by: Barry Sexton
Created date: 11 Feb 2019 14:53 GMT

Job summary

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
1	TP-01-21/01/2019-0.50m		Non Hazardous		3
2	TP-02-21/01/2019-0.60m		Non Hazardous		6
3	TP-03-22/01/2019-0.50m		Non Hazardous		9
4	TP-04-22/01/2019-1.00m		Non Hazardous		12
5	TP-05-22/01/2019-0.80m		Non Hazardous		15
6	TP-06-21/01/2019-0.50m		Non Hazardous		18
7	TP-06-21/01/2019-1.50m		Non Hazardous		21
8	TP-07-21/01/2019-0.50m		Non Hazardous		24
9	TP-07-21/01/2019-1.50m		Non Hazardous		27
10	TP-07-21/01/2019-2.50m		Non Hazardous		30
11	TP-07A-21/01/2019-0.50m		Non Hazardous		33
12	TP-07A-21/01/2019-1.50m		Non Hazardous		36

Waste Classification Report



BQKJC-6FVYW-HM8SH

Job name

Cornelscourt TP Data File 2

Description/Comments

Project

8354-01-19

Site

Cornelscourt

Related Documents

#	Name	Description
1	Cornelscourt TP Data File 2.HWOL	.hwol file used to create the Job

Waste Stream Template

Example waste stream template for contaminated soils

Classified by

Name:
Barry Sexton
 Date:
13 Mar 2019 17:25 GMT
 Telephone:
00353876119640

Company:
Ground Investigations Ireland
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Report

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 Created date: 13 Mar 2019 17:25 GMT

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Classification of sample: TP - 11-23/01/2019-1.00m

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

Sample details

Sample Name: TP - 11-23/01/2019-1.00m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 13.4% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

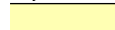



Determinands

Moisture content: 13.4% 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 }				<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	mg/kg	1.32	9.147	mg/kg	0.000915 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium oxide }				2.1	mg/kg	1.142	2.077	mg/kg	0.000208 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
4	chromium in chromium(III) compounds { chromium(III) oxide }				40.4	mg/kg	1.462	51.135	mg/kg	0.00511 %	✓	
		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 }				18	mg/kg	1.126	17.55	mg/kg	0.00176 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	12	mg/kg	1.56	16.21	mg/kg	0.00104 %	✓	
	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	4.677	mg/kg	0.000468 %	✓	
	042-001-00-9	215-204-7	1313-27-5									
10	nickel { nickel chromate }				25	mg/kg	2.976	64.436	mg/kg	0.00644 %	✓	
	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 }				77	mg/kg	2.774	184.986	mg/kg	0.0185 %	✓	
	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				8.64 pH		8.64 pH	8.64 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 }				52 mg/kg	1.117	50.278 mg/kg	0.00503 %	✓	
		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:								0.0453 %		

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
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP - 11-23/01/2019-2.00m


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

Sample details

Sample Name:	LoW Code:	
TP - 11-23/01/2019-2.00m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
9.7% (wet weight correction)		

Hazard properties

None identified

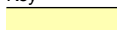



Determinands

Moisture content: 9.7% 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	2.162 mg/kg	0.000216 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				9.8 mg/kg	1.32	11.684 mg/kg	0.00117 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2 mg/kg	1.142	2.063 mg/kg	0.000206 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				37.1 mg/kg	1.462	48.964 mg/kg	0.0049 %	✓	
		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	33.55 mg/kg	0.00336 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	16 mg/kg	1.56	22.536 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 }				3.9 mg/kg	1.5	5.283 mg/kg	0.000528 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				40.5 mg/kg	2.976	108.846 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 }				1 mg/kg	2.554	2.306 mg/kg	0.000231 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				92 mg/kg	2.774	230.465 mg/kg	0.023 %	✓	
	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 }				73 mg/kg	1.117	73.599 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:								0.0588 %		

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
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP - 11-23/01/2019-3.00m

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

Sample details

Sample Name: TP - 11-23/01/2019-3.00m	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

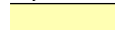



Determinands


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 }	051-005-00-X	215-175-0	1309-64-4	1 mg/kg	1.197	1.056 mg/kg	0.000106 %	✓	
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	8.8 mg/kg	1.32	10.248 mg/kg	0.00102 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	1.6 mg/kg	1.142	1.612 mg/kg	0.000161 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide }		215-160-9	1308-38-9	47.8 mg/kg	1.462	61.619 mg/kg	0.00616 %	✓	
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	28 mg/kg	1.126	27.805 mg/kg	0.00278 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	15 mg/kg	1.56	20.636 mg/kg	0.00132 %	✓	
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	4.1 mg/kg	1.5	5.425 mg/kg	0.000542 %	✓	
10	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7	34.4 mg/kg	2.976	90.302 mg/kg	0.00903 %	✓	
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8			1 mg/kg	2.554	2.252 mg/kg	0.000225 %	✓	
12	zinc { zinc chromate }	024-007-00-3			76 mg/kg	2.774	185.957 mg/kg	0.0186 %	✓	
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				8.71 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 }				60 mg/kg	1.117	59.085 mg/kg	0.00591 %	✓	
		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:								0.0513 %		

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
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP - 12-23/01/2019-0.50m

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

Sample details

Sample Name: TP - 12-23/01/2019-0.50m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 18.7% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

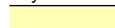



Determinands

Moisture content: 18.7% 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	1.946 mg/kg	0.000195 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				13.2 mg/kg	1.32	14.169 mg/kg	0.00142 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2.2 mg/kg	1.142	2.043 mg/kg	0.000204 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				69 mg/kg	1.462	81.989 mg/kg	0.0082 %	✓	
		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 }				34 mg/kg	1.126	31.122 mg/kg	0.00311 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	31 mg/kg	1.56	39.312 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 }				5.4 mg/kg	1.5	6.586 mg/kg	0.000659 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				45 mg/kg	2.976	108.887 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 }				1 mg/kg	2.554	2.076 mg/kg	0.000208 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				110 mg/kg	2.774	248.092 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				8.35 pH		8.35 pH	8.35 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 }				91 mg/kg	1.117	82.602 mg/kg	0.00826 %	✓	
		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:								0.0659 %		

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
 - CLP: Note 1 Only the metal concentration has been used for classification

Classification of sample: TP - 12-23/01/2019-1.50m

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

Sample details

Sample Name: TP - 12-23/01/2019-1.50m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 12% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

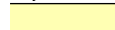



Determinands

Moisture content: 12% 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	2.107 mg/kg	0.000211 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				10.1 mg/kg	1.32	11.735 mg/kg	0.00117 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.8 mg/kg	1.142	1.809 mg/kg	0.000181 %	✓	
	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	53.762 mg/kg	0.00538 %	✓	
		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	27.742 mg/kg	0.00277 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	16 mg/kg	1.56	21.962 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 }				3.8 mg/kg	1.5	5.017 mg/kg	0.000502 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				33.8 mg/kg	2.976	88.526 mg/kg	0.00885 %	✓	
	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	2.247 mg/kg	0.000225 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				83 mg/kg	2.774	202.624 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	<0.0000005 %		<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				8.73 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 }				69 mg/kg	1.117	67.794 mg/kg	0.00678 %	✓	
		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:								0.0532 %		

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
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP - 12-23/01/2019-2.50m

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

Sample details

Sample Name: TP - 12-23/01/2019-2.50m	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

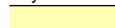



Determinands

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 }				10.8 mg/kg	1.32	12.719 mg/kg	0.00127 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.2 mg/kg	1.142	1.223 mg/kg	0.000122 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				65.3 mg/kg	1.462	85.132 mg/kg	0.00851 %	✓	
		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 }				14 mg/kg	1.126	14.06 mg/kg	0.00141 %	✓	
	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 }				3.7 mg/kg	1.5	4.951 mg/kg	0.000495 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				46.8 mg/kg	2.976	124.246 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 }				1 mg/kg	2.554	2.278 mg/kg	0.000228 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				75 mg/kg	2.774	185.59 mg/kg	0.0186 %	✓	
	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				8.69 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 }				61 mg/kg	1.117	60.751 mg/kg	0.00608 %	✓	
		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:								0.0561 %		

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
 - CLP: Note 1 Only the metal concentration has been used for classification

Classification of sample: TP - 13-23/01/2019-0.50m

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

Sample details

Sample Name: TP - 13-23/01/2019-0.50m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 20% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

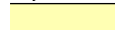



Determinands

Moisture content: 20% 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	1.915 mg/kg	0.000192 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				8.6 mg/kg	1.32	9.084 mg/kg	0.000908 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2.1 mg/kg	1.142	1.919 mg/kg	0.000192 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				66.2 mg/kg	1.462	77.404 mg/kg	0.00774 %	✓	
		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	36.028 mg/kg	0.0036 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	28 mg/kg	1.56	34.94 mg/kg	0.00224 %	✓	
	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 }				3.2 mg/kg	1.5	3.84 mg/kg	0.000384 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				49.6 mg/kg	2.976	118.098 mg/kg	0.0118 %	✓	
	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	2.043 mg/kg	0.000204 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				107 mg/kg	2.774	237.467 mg/kg	0.0237 %	✓	
	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 }				154 mg/kg	1.117	137.554 mg/kg	0.0138 %	✓	
		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:								0.0702 %		

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
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP - 13-23/01/2019-1.50m

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

Sample details

Sample Name: TP - 13-23/01/2019-1.50m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 13.1% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

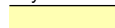



Determinands

Moisture content: 13.1% 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 }				3 mg/kg	1.197	3.121 mg/kg	0.000312 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				20.8 mg/kg	1.32	23.865 mg/kg	0.00239 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				3 mg/kg	1.142	2.978 mg/kg	0.000298 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				45.3 mg/kg	1.462	57.535 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 }				38 mg/kg	1.126	37.179 mg/kg	0.00372 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	20 mg/kg	1.56	27.11 mg/kg	0.00174 %	✓	
	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	5.606 mg/kg	0.000561 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				50.4 mg/kg	2.976	130.353 mg/kg	0.013 %	✓	
	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	4.438 mg/kg	0.000444 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				190 mg/kg	2.774	458.039 mg/kg	0.0458 %	✓	
	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				8.53 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 }				63 mg/kg	1.117	61.125 mg/kg	0.00611 %	✓	
		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:								0.0856 %		

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
 - CLP: Note 1 Only the metal concentration has been used for classification

Classification of sample: TP - 13-23/01/2019-2.50m

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

Sample details

Sample Name: TP - 13-23/01/2019-2.50m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 12.3% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

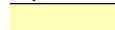



Determinands

Moisture content: 12.3% 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	2.1 mg/kg	0.00021 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				10.7 mg/kg	1.32	12.39 mg/kg	0.00124 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2.3 mg/kg	1.142	2.304 mg/kg	0.00023 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				46.8 mg/kg	1.462	59.988 mg/kg	0.006 %	✓	
		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	32.584 mg/kg	0.00326 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	21 mg/kg	1.56	28.727 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 }				4.5 mg/kg	1.5	5.92 mg/kg	0.000592 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				41.9 mg/kg	2.976	109.367 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	4.479 mg/kg	0.000448 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				100 mg/kg	2.774	243.293 mg/kg	0.0243 %	✓	
	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				8.61 pH		8.61 pH	8.61 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	90.084 mg/kg	0.00901 %	✓	
		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:								0.0635 %		

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
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP - 16-23/01/2019-0.50m


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

Sample details

Sample Name: TP - 16-23/01/2019-0.50m	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

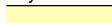



Determinands

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 }				1 mg/kg	1.197	0.979 mg/kg	0.0000979 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				7.3 mg/kg	1.32	7.884 mg/kg	0.000788 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.1 mg/kg	1.142	1.028 mg/kg	0.000103 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				88.6 mg/kg	1.462	105.926 mg/kg	0.0106 %	✓	
		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	28.55 mg/kg	0.00286 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	18 mg/kg	1.56	22.967 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 }				2.3 mg/kg	1.5	2.822 mg/kg	0.000282 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				25.6 mg/kg	2.976	62.325 mg/kg	0.00623 %	✓	
	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 }				67 mg/kg	2.774	152.04 mg/kg	0.0152 %	✓	
	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				8.22 pH		8.22 pH	8.22 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 }				132 mg/kg	1.117	120.556 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:								0.0554 %		

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
 - CLP: Note 1 Only the metal concentration has been used for classification

Classification of sample: TP - 16-23/01/2019-1.50m

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

Sample details

Sample Name: TP - 16-23/01/2019-1.50m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 13% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

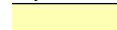



Determinands


Moisture content: 13% 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	2.083 mg/kg	0.000208 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				9.7 mg/kg	1.32	11.142 mg/kg	0.00111 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.9 mg/kg	1.142	1.888 mg/kg	0.000189 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				55.1 mg/kg	1.462	70.063 mg/kg	0.00701 %	✓	
		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	30.365 mg/kg	0.00304 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	16 mg/kg	1.56	21.713 mg/kg	0.00139 %	✓	
	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	4.568 mg/kg	0.000457 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				35.5 mg/kg	2.976	91.922 mg/kg	0.00919 %	✓	
	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	2.222 mg/kg	0.000222 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				88 mg/kg	2.774	212.389 mg/kg	0.0212 %	✓	
	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				8.58 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 }				70 mg/kg	1.117	67.995 mg/kg	0.0068 %	✓	
		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:								0.0563 %		

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
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP - 16-23/01/2019-2.50m

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

Sample details

Sample Name: TP - 16-23/01/2019-2.50m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 12.4% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

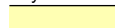



Determinands

Moisture content: 12.4% 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	2.097 mg/kg	0.00021 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				10 mg/kg	1.32	11.566 mg/kg	0.00116 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2.3 mg/kg	1.142	2.302 mg/kg	0.00023 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				56.2 mg/kg	1.462	71.954 mg/kg	0.0072 %	✓	
		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	28.602 mg/kg	0.00286 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	17 mg/kg	1.56	23.229 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 }				3.8 mg/kg	1.5	4.994 mg/kg	0.000499 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				36.8 mg/kg	2.976	95.945 mg/kg	0.00959 %	✓	
	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	2.237 mg/kg	0.000224 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				85 mg/kg	2.774	206.563 mg/kg	0.0207 %	✓	
	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				8.63 pH		8.63 pH	8.63 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 }				72 mg/kg	1.117	70.42 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:								0.0566 %		

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
 - CLP: Note 1 Only the metal concentration has been used for classification

Classification of sample: TP - 17-23/01/2019-0.50m

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

Sample details

Sample Name: TP - 17-23/01/2019-0.50m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 19.8% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

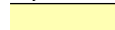



Determinands

Moisture content: 19.8% 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	2.88 mg/kg	0.000288 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				16.2 mg/kg	1.32	17.154 mg/kg	0.00172 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				3.1 mg/kg	1.142	2.84 mg/kg	0.000284 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				68 mg/kg	1.462	79.707 mg/kg	0.00797 %	✓	
		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 }				44 mg/kg	1.126	39.73 mg/kg	0.00397 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	36 mg/kg	1.56	45.035 mg/kg	0.00289 %	✓	
	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	8.061 mg/kg	0.000806 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				65.3 mg/kg	2.976	155.869 mg/kg	0.0156 %	✓	
	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	4.096 mg/kg	0.00041 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				136 mg/kg	2.774	302.582 mg/kg	0.0303 %	✓	
	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				8.26 pH		8.26 pH	8.26 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 }				96 mg/kg	1.117	85.962 mg/kg	0.0086 %	✓	
		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:								0.0782 %		

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
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP - 17-23/01/2019-1.50m


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

Sample details

Sample Name: TP - 17-23/01/2019-1.50m	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

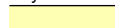



Determinands

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 }				12.1 mg/kg	1.32	14.235 mg/kg	0.00142 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2.1 mg/kg	1.142	2.137 mg/kg	0.000214 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				44.3 mg/kg	1.462	57.69 mg/kg	0.00577 %	✓	
		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	19 mg/kg	1.56	26.406 mg/kg	0.00169 %	✓	
	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	6.55 mg/kg	0.000655 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				44.7 mg/kg	2.976	118.538 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	2.275 mg/kg	0.000228 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				106 mg/kg	2.774	262.007 mg/kg	0.0262 %	✓	
	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				8.62 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 }				70 mg/kg	1.117	69.636 mg/kg	0.00696 %	✓	
		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:								0.0639 %		

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
 - CLP: Note 1 Only the metal concentration has been used for classification

Classification of sample: TP - 17-23/01/2019-2.50m

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

Sample details

Sample Name: TP - 17-23/01/2019-2.50m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 11.4% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

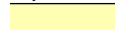



Determinands


Moisture content: 11.4% 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 }				<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 }				5.6 mg/kg	1.32	6.551 mg/kg	0.000655 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.1 mg/kg	1.142	1.113 mg/kg	0.000111 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				43.8 mg/kg	1.462	56.718 mg/kg	0.00567 %	✓	
		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	25.936 mg/kg	0.00259 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	17 mg/kg	1.56	23.494 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 }				2.5 mg/kg	1.5	3.323 mg/kg	0.000332 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				38.8 mg/kg	2.976	102.314 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 }				82 mg/kg	2.774	201.547 mg/kg	0.0202 %	✓	
	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				8.76 pH		8.76 pH	8.76 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	64.3 mg/kg	0.00643 %	✓	
		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:								0.0535 %		

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
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP - 21-23/01/2019-0.50m

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

Sample details

Sample Name: TP - 21-23/01/2019-0.50m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 18.8% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

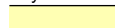



Determinands

Moisture content: 18.8% 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	1.944 mg/kg	0.000194 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				8.5 mg/kg	1.32	9.113 mg/kg	0.000911 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.3 mg/kg	1.142	1.206 mg/kg	0.000121 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				104.6 mg/kg	1.462	124.138 mg/kg	0.0124 %	✓	
		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 }				41 mg/kg	1.126	37.483 mg/kg	0.00375 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	22 mg/kg	1.56	27.865 mg/kg	0.00179 %	✓	
	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 }				2.9 mg/kg	1.5	3.533 mg/kg	0.000353 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				29.6 mg/kg	2.976	71.535 mg/kg	0.00715 %	✓	
	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 }				77 mg/kg	2.774	173.451 mg/kg	0.0173 %	✓	
	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				8.21 pH		8.21 pH	8.21 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				0.05 mg/kg		0.0406 mg/kg	0.00000406 %	✓	
		205-912-4	206-44-0							
27	pyrene				0.05 mg/kg		0.0406 mg/kg	0.00000406 %	✓	
		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				0.05 mg/kg		0.0406 mg/kg	0.00000406 %	✓	
	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 }				129 mg/kg	1.117	116.952 mg/kg	0.0117 %	✓	
		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:								0.0614 %		

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
 - CLP: Note 1 Only the metal concentration has been used for classification

Classification of sample: TP - 21-23/01/2019-1.50m

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

Sample details

Sample Name: TP - 21-23/01/2019-1.50m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 11.4% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

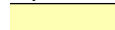



Determinands

Moisture content: 11.4% 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	2.121	mg/kg	0.000212 %	✓	
	051-005-00-X	215-175-0	1309-64-4									
2	arsenic { arsenic trioxide }				10.7	mg/kg	1.32	12.517	mg/kg	0.00125 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium oxide }				2	mg/kg	1.142	2.024	mg/kg	0.000202 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
4	chromium in chromium(III) compounds { chromium(III) oxide }				55.3	mg/kg	1.462	71.61	mg/kg	0.00716 %	✓	
		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 }				34	mg/kg	1.126	33.916	mg/kg	0.00339 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	18	mg/kg	1.56	24.876	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 }				4.4	mg/kg	1.5	5.848	mg/kg	0.000585 %	✓	
	042-001-00-9	215-204-7	1313-27-5									
10	nickel { nickel chromate }				44	mg/kg	2.976	116.027	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 }				1	mg/kg	2.554	2.262	mg/kg	0.000226 %	✓	
	034-002-00-8											
12	zinc { zinc chromate }				95	mg/kg	2.774	233.5	mg/kg	0.0233 %	✓	
	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				8.57 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 }				86 mg/kg	1.117	85.073 mg/kg	0.00851 %	✓	
		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:								0.0635 %		

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
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP - 21-23/01/2019-2.50m

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

Sample details

Sample Name: TP - 21-23/01/2019-2.50m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 13% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

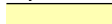



Determinands

Moisture content: 13% 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	2.083 mg/kg	0.000208 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				11.4 mg/kg	1.32	13.095 mg/kg	0.00131 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2.3 mg/kg	1.142	2.286 mg/kg	0.000229 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				53.7 mg/kg	1.462	68.282 mg/kg	0.00683 %	✓	
		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 }				34 mg/kg	1.126	33.304 mg/kg	0.00333 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	22 mg/kg	1.56	29.855 mg/kg	0.00191 %	✓	
	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	5.873 mg/kg	0.000587 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				42.8 mg/kg	2.976	110.824 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 }				2 mg/kg	2.554	4.443 mg/kg	0.000444 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				103 mg/kg	2.774	248.591 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				8.67 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				<0.03 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	89.365 mg/kg	0.00894 %	✓	
		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
 - 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: 2019.67.3824.7797 (09 Mar 2019)

HazWasteOnline Database: 2019.67.3824.7797 (09 Mar 2019)

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



36HV8-NL7SW-2PXVH

Job name

Cornelscourt WS Data

Description/Comments

Project

8354-01-19

Site

Cornelscourt

Related Documents

#	Name	Description
1	Cornelscourt WS Data.HWOL	.hwol file used to create the Job

Waste Stream Template

Example waste stream template for contaminated soils

Classified by

Name:
Barry Sexton
Date:
11 Feb 2019 14:56 GMT
Telephone:
00353876119640

Company:
Ground Investigations Ireland
Catherinestown House,
Hazelhatch Road, Newcastle
Co. Dublin

Report

Created by: Barry Sexton
Created date: 11 Feb 2019 14:56 GMT

Job summary

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
1	WS01-21/01/2019-0.00-1.00m		Non Hazardous		3
2	WS01-21/01/2019-1.00-2.00m		Non Hazardous		4
3	WS01-21/01/2019-2.00-3.00m		Non Hazardous		5
4	WS02-21/01/2019-0.00-1.00m		Non Hazardous		6
5	WS02-21/01/2019-1.00-2.00m		Non Hazardous		8
6	WS02-21/01/2019-2.00-3.00m		Non Hazardous		9
7	WS03-21/01/2019-0.00-1.00m		Non Hazardous		10
8	WS03-21/01/2019-1.00-2.00m		Non Hazardous		11
9	WS03-21/01/2019-2.00-3.00m		Non Hazardous		12
10	WS04-21/01/2019-0.00-1.00m		Non Hazardous		13
11	WS04-21/01/2019-1.00-2.00m		Non Hazardous		14
12	WS04-21/01/2019-2.00-3.00m		Non Hazardous		17

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
13	WS04-21/01/2019-3.00-4.00m		Non Hazardous		20
14	WS05-22/01/2019-0.00-1.00m		Non Hazardous		23
15	WS05-22/01/2019-1.00-2.00m		Non Hazardous		24
16	WS05-22/01/2019-2.00-3.00m		Non Hazardous		25
17	WS06-22/01/2019-0.00-1.00m		Non Hazardous		26
18	WS06-22/01/2019-1.00-2.00m		Non Hazardous		27
19	WS06-22/01/2019-2.00-3.00m		Non Hazardous		28
20	WS07-22/01/2019-0.00-1.00m		Non Hazardous		30
21	WS07-22/01/2019-1.00-2.00m		Non Hazardous		32
22	WS07-22/01/2019-2.00-3.00m		Non Hazardous		35
23	WS07-22/01/2019-3.00-4.00m		Non Hazardous		38
24	WS08-22/01/2019-0.00-1.00m		Non Hazardous		41
25	WS08-22/01/2019-1.00-2.00m		Non Hazardous		43
26	WS08-22/01/2019-2.00-3.00m		Non Hazardous		46
27	WS09-22/01/2019-0.00-1.00m		Non Hazardous		49
28	WS09-22/01/2019-1.00-2.00m		Non Hazardous		50
29	WS09-22/01/2019-2.00-3.00m		Non Hazardous		51
30	WS10-21/01/2019-0.00-1.00m		Non Hazardous		52
31	WS10-21/01/2019-1.00-2.00m		Non Hazardous		53
32	WS10-21/01/2019-2.00-3.00m		Non Hazardous		54
33	WS10-21/01/2019-3.00-4.00m		Non Hazardous		57
34	WS11-21/01/2019-0.00-1.00m		Non Hazardous		60
35	WS11-21/01/2019-1.00-2.00m		Hazardous	HP 7, HP 11	61
36	WS11-21/01/2019-2.00-3.00m		Hazardous	HP 7, HP 11	63
37	WS12-22/01/2019-0.00-1.00m		Non Hazardous		65
38	WS12-22/01/2019-1.00-2.00m		Non Hazardous		67
39	WS12-22/01/2019-2.00-3.00m		Non Hazardous		69
40	WS13-22/01/2019-0.00-1.00m		Non Hazardous		70
41	WS13-22/01/2019-1.00-2.00m		Non Hazardous		72
42	WS13-22/01/2019-2.00-3.00m		Non Hazardous		73

Appendices	Page
Appendix A: Classifier defined and non CLP determinands	74
Appendix B: Rationale for selection of metal species	75
Appendix C: Version	76

Classification of sample: WS01-21/01/2019-0.00-1.00m

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

Sample details

Sample Name:	LoW Code:
WS01-21/01/2019-0.00-1.00m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified


Determinands

Moisture content: 0% 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	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	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]							
Total:								0.0052 %		

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)
- <LOD** Below limit of detection

Classification of sample: WS01-21/01/2019-1.00-2.00m

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

Sample details

Sample Name: WS01-21/01/2019-1.00-2.00m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% 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	● TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
2	● 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							
3	● benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	● toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	● ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	● 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]							
Total:								0.0052 %		

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)
- <LOD** Below limit of detection

Classification of sample: WS01-21/01/2019-2.00-3.00m

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

Sample details

Sample Name:	LoW Code:
WS01-21/01/2019-2.00-3.00m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands


Moisture content: 0% 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	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	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]							
Total:								0.0052 %		

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)
- <LOD** Below limit of detection

Classification of sample: WS02-21/01/2019-0.00-1.00m


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

Sample details

Sample Name: WS02-21/01/2019-0.00-1.00m	LoW Code: Chapter: Entry:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites) 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
---	---------------------------------	--

Hazard properties

None identified

Determinands

Moisture content: 0% 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	TPH (C6 to C40) petroleum group				627 mg/kg		627 mg/kg	0.0627 %	✓	
2	confirm TPH has NOT arisen from diesel or petrol				<input checked="" type="checkbox"/>					
3	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							
4	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
5	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
6	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
7	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]							
Total:								0.0627 %		

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)
- <LOD Below limit of detection

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:

TPH (C6 to C40) petroleum group: (conc.: 0.0627%)

Classification of sample: WS02-21/01/2019-1.00-2.00m

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

Sample details

Sample Name: WS02-21/01/2019-1.00-2.00m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% 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	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
2	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
3	benzene 601-020-00-8 200-753-7 71-43-2				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
4	toluene 601-021-00-3 203-625-9 108-88-3				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
5	ethylbenzene 601-023-00-4 202-849-4 100-41-4				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
6	xylene 601-022-00-9 202-422-2 [1] 95-47-6 [1] 203-396-5 [2] 106-42-3 [2] 203-576-3 [3] 108-38-3 [3] 215-535-7 [4] 1330-20-7 [4]				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
Total:								0.0052 %		

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)
- <LOD** Below limit of detection

Classification of sample: WS02-21/01/2019-2.00-3.00m

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

Sample details

Sample Name: **WS02-21/01/2019-2.00-3.00m** LoW Code: Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands


Moisture content: 0% 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	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	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]							
Total:								0.0052 %		

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)
- <LOD** Below limit of detection

Classification of sample: WS03-21/01/2019-0.00-1.00m


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

Sample details

Sample Name:	LoW Code:
WS03-21/01/2019-0.00-1.00m	Chapter:
	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
	Entry:
	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% 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	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	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]							
Total:								0.0052 %		

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)
- <LOD** Below limit of detection

Classification of sample: WS03-21/01/2019-1.00-2.00m

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

Sample details

Sample Name: **WS03-21/01/2019-1.00-2.00m** LoW Code: Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands


Moisture content: 0% 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	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	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]							
Total:								0.0052 %		

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)
- <LOD** Below limit of detection

Classification of sample: WS03-21/01/2019-2.00-3.00m


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

Sample details

Sample Name:	LoW Code:
WS03-21/01/2019-2.00-3.00m	Chapter:
	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
	Entry:
	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% 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	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	xylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1]	95-47-6 [1]							
		203-396-5 [2]	106-42-3 [2]							
		203-576-3 [3]	108-38-3 [3]							
		215-535-7 [4]	1330-20-7 [4]							
Total:								0.0052 %		

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)
- <LOD** Below limit of detection

Classification of sample: WS04-21/01/2019-0.00-1.00m

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

Sample details

Sample Name: **WS04-21/01/2019-0.00-1.00m** LoW Code: Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified


Determinands

Moisture content: 0% 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	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	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]							
Total:								0.0052 %		

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)
- <LOD** Below limit of detection

Classification of sample: WS04-21/01/2019-1.00-2.00m

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

Sample details

Sample Name: WS04-21/01/2019-1.00-2.00m	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

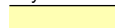



Determinands

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 }				9.8 mg/kg	1.32	11.374 mg/kg	0.00114 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.6 mg/kg	1.142	1.607 mg/kg	0.000161 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				64.5 mg/kg	1.462	82.864 mg/kg	0.00829 %	✓	
		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	28.7 mg/kg	0.00287 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	16 mg/kg	1.56	21.937 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 }				3.7 mg/kg	1.5	4.879 mg/kg	0.000488 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				36 mg/kg	2.976	94.181 mg/kg	0.00942 %	✓	
	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 }				77 mg/kg	2.774	187.763 mg/kg	0.0188 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		1011 mg/kg		888.669 mg/kg	0.0889 %	✓	
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				8.57 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				0.18 mg/kg		0.158 mg/kg	0.0000158 %	✓	
		201-695-5	86-73-7							
24	phenanthrene				0.31 mg/kg		0.272 mg/kg	0.0000272 %	✓	
		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				0.05 mg/kg		0.044 mg/kg	0.0000044 %	✓	
		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	72.624 mg/kg	0.00726 %	✓	
		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:								0.139 %		

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
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:

TPH (C6 to C40) petroleum group: (conc.: 0.0889%)

Classification of sample: WS04-21/01/2019-2.00-3.00m

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

Sample details

Sample Name: WS04-21/01/2019-2.00-3.00m	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 }				12.1 mg/kg	1.32	14.091 mg/kg	0.00141 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.7 mg/kg	1.142	1.713 mg/kg	0.000171 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				44.3 mg/kg	1.462	57.107 mg/kg	0.00571 %	✓	
		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	28.798 mg/kg	0.00288 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	20 mg/kg	1.56	27.515 mg/kg	0.00176 %	✓	
	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	4.763 mg/kg	0.000476 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				36.4 mg/kg	2.976	95.552 mg/kg	0.00956 %	✓	
	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 }				103 mg/kg	2.774	252.02 mg/kg	0.0252 %	✓	
	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				0.015 mg/kg		0.0132 mg/kg	0.00000132 %	✓	
	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				8.61 pH		8.61 pH	8.61 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	72.872 mg/kg	0.00729 %	✓	
		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:								0.0603 %		

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
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. 2; H225 "Highly flammable liquid and vapour."

Because of determinand:

tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane: (conc.: 1.32e-06%)

Classification of sample: WS04-21/01/2019-3.00-4.00m

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

Sample details

Sample Name: WS04-21/01/2019-3.00-4.00m	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

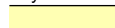



Determinands

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 }				<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 }				3.8	mg/kg	1.32	4.636	mg/kg	0.000464 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium oxide }				0.1	mg/kg	1.142	0.106	mg/kg	0.0000106 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
4	chromium in chromium(III) compounds { chromium(III) oxide }				72	mg/kg	1.462	97.234	mg/kg	0.00972 %	✓	
		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 }				6	mg/kg	1.126	6.242	mg/kg	0.000624 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	6	mg/kg	1.56	8.648	mg/kg	0.000554 %	✓	
	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	5.683	mg/kg	0.000568 %	✓	
	042-001-00-9	215-204-7	1313-27-5									
10	nickel { nickel chromate }				7.2	mg/kg	2.976	19.8	mg/kg	0.00198 %	✓	
	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 }				37	mg/kg	2.774	94.843	mg/kg	0.00948 %	✓	
	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				0.079	mg/kg		0.073	mg/kg	0.0000073 %	✓	
	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				0.017 mg/kg		0.0157 mg/kg	0.00000157 %	✓	
	601-023-00-4	202-849-4	100-41-4							
18	xylene				0.017 mg/kg		0.0157 mg/kg	0.00000157 %	✓	
	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				9.2 pH		9.2 pH	9.2 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 }				34 mg/kg	1.117	35.076 mg/kg	0.00351 %	✓	
		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:								0.0327 %		

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
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. 2; H225 "Highly flammable liquid and vapour."

Because of determinands:

tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane: (conc.: 7.3e-06%)

ethylbenzene: (conc.: 1.57e-06%)

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

xylene: (conc.: 1.57e-06%)

Classification of sample: WS05-22/01/2019-0.00-1.00m

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

Sample details

Sample Name: **WS05-22/01/2019-0.00-1.00m** LoW Code: Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands


Moisture content: 0% 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	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	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]							
Total:								0.0052 %		

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)
- <LOD** Below limit of detection

Classification of sample: WS05-22/01/2019-1.00-2.00m


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

Sample details

Sample Name: WS05-22/01/2019-1.00-2.00m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% 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	● TPH (C6 to C40) petroleum group TPH				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
2	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
3	● benzene 601-020-00-8 200-753-7 71-43-2				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
4	toluene 601-021-00-3 203-625-9 108-88-3				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
5	● ethylbenzene 601-023-00-4 202-849-4 100-41-4				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
6	xylene 601-022-00-9 202-422-2 [1] 95-47-6 [1] 203-396-5 [2] 106-42-3 [2] 203-576-3 [3] 108-38-3 [3] 215-535-7 [4] 1330-20-7 [4]				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
Total:								0.0052 %		

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)
- <LOD** Below limit of detection

Classification of sample: WS05-22/01/2019-2.00-3.00m

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

Sample details

Sample Name: **WS05-22/01/2019-2.00-3.00m** LoW Code: Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands


Moisture content: 0% 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	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	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]							
Total:								0.0052 %		

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)
- <LOD** Below limit of detection

Classification of sample: WS06-22/01/2019-0.00-1.00m


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

Sample details

Sample Name:	LoW Code:
WS06-22/01/2019-0.00-1.00m	Chapter:
	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
	Entry:
	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% 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	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	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]							
Total:								0.0052 %		

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)
- <LOD** Below limit of detection

Classification of sample: WS06-22/01/2019-1.00-2.00m

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

Sample details

Sample Name: **WS06-22/01/2019-1.00-2.00m** LoW Code: Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands


Moisture content: 0% 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	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	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]							
Total:								0.0052 %		

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)
- <LOD** Below limit of detection

Classification of sample: WS06-22/01/2019-2.00-3.00m


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

Sample details

Sample Name:	LoW Code:
WS06-22/01/2019-2.00-3.00m	Chapter:
	Entry:
	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% 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	TPH (C6 to C40) petroleum group				122 mg/kg		122 mg/kg	0.0122 %	✓	
2	confirm TPH has NOT arisen from diesel or petrol				<input checked="" type="checkbox"/>					
3	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							
4	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
5	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
6	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
7	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]							
Total:								0.0122 %		

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)
- <LOD Below limit of detection

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:

TPH (C6 to C40) petroleum group: (conc.: 0.0122%)

Classification of sample: WS07-22/01/2019-0.00-1.00m


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

Sample details

Sample Name: WS07-22/01/2019-0.00-1.00m	LoW Code: Chapter: Entry:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites) 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
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Hazard properties

None identified

Determinands

Moisture content: 0% 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	TPH (C6 to C40) petroleum group				154 mg/kg		154 mg/kg	0.0154 %	✓	
2	confirm TPH has NOT arisen from diesel or petrol				<input checked="" type="checkbox"/>					
3	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							
4	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
5	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
6	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
7	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]							
Total:								0.0154 %		

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)
- <LOD Below limit of detection

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:

TPH (C6 to C40) petroleum group: (conc.: 0.0154%)

Classification of sample: WS07-22/01/2019-1.00-2.00m


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

Sample details

Sample Name:	LoW Code:
WS07-22/01/2019-1.00-2.00m	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
15.4%	Entry:
(wet weight correction)	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

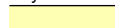



Determinands

Moisture content: 15.4% 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	2.025 mg/kg	0.000203 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				11.3 mg/kg	1.32	12.622 mg/kg	0.00126 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2.1 mg/kg	1.142	2.029 mg/kg	0.000203 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				48 mg/kg	1.462	59.351 mg/kg	0.00594 %	✓	
		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 }				35 mg/kg	1.126	33.338 mg/kg	0.00333 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	18 mg/kg	1.56	23.753 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 }				4 mg/kg	1.5	5.077 mg/kg	0.000508 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				43.2 mg/kg	2.976	108.774 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	4.321 mg/kg	0.000432 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				106 mg/kg	2.774	248.774 mg/kg	0.0249 %	✓	
	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				8.69 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 }				67 mg/kg	1.117	63.286 mg/kg	0.00633 %	✓	
		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:								0.0609 %		

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
 - CLP: Note 1 Only the metal concentration has been used for classification

Classification of sample: WS07-22/01/2019-2.00-3.00m

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

Sample details

Sample Name: WS07-22/01/2019-2.00-3.00m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 12.7% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

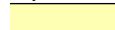



Determinands

Moisture content: 12.7% 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	2.09 mg/kg	0.000209 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				8.4 mg/kg	1.32	9.682 mg/kg	0.000968 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.7 mg/kg	1.142	1.695 mg/kg	0.00017 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				54.9 mg/kg	1.462	70.049 mg/kg	0.007 %	✓	
		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	27.521 mg/kg	0.00275 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	16 mg/kg	1.56	21.787 mg/kg	0.0014 %	✓	
	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 }				3.2 mg/kg	1.5	4.191 mg/kg	0.000419 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				34.8 mg/kg	2.976	90.42 mg/kg	0.00904 %	✓	
	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 }				76 mg/kg	2.774	184.059 mg/kg	0.0184 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		211 mg/kg		184.203 mg/kg	0.0184 %	✓	
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				0.261 mg/kg		0.228 mg/kg	0.0000228 %	✓	
	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				0.1 mg/kg		0.0873 mg/kg	0.00000873 %	✓	
	601-023-00-4	202-849-4	100-41-4							
18	xylene				0.441 mg/kg		0.385 mg/kg	0.0000385 %	✓	
	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				7.69 pH		7.69 pH	7.69 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 }				61 mg/kg	1.117	59.457 mg/kg	0.00595 %	✓	
		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:								0.0653 %		

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
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. 2; H225 "Highly flammable liquid and vapour."

Because of determinands:

tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane: (conc.: 0.00002%)

ethylbenzene: (conc.: 8.73e-06%)


Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinands:

TPH (C6 to C40) petroleum group: (conc.: 0.0184%)

xylene: (conc.: 0.00003%)

Classification of sample: WS07-22/01/2019-3.00-4.00m


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

Sample details

Sample Name:	LoW Code:	
WS07-22/01/2019-3.00-4.00m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
9.7% (wet weight correction)		

Hazard properties

None identified

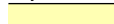



Determinands

Moisture content: 9.7% 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 }				1 mg/kg	1.197	1.081 mg/kg	0.000108 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				7.8 mg/kg	1.32	9.3 mg/kg	0.00093 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.3 mg/kg	1.142	1.341 mg/kg	0.000134 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				67.5 mg/kg	1.462	89.085 mg/kg	0.00891 %	✓	
		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 }				17 mg/kg	1.126	17.284 mg/kg	0.00173 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	12 mg/kg	1.56	16.902 mg/kg	0.00108 %	✓	
	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 }				3.1 mg/kg	1.5	4.199 mg/kg	0.00042 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				27.6 mg/kg	2.976	74.177 mg/kg	0.00742 %	✓	
	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 }				66 mg/kg	2.774	165.334 mg/kg	0.0165 %	✓	
	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				0.798 mg/kg		0.721 mg/kg	0.0000721 %	✓	
	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				0.08 mg/kg		0.0722 mg/kg	0.00000722 %	✓	
	601-023-00-4	202-849-4	100-41-4							
18	xylene				0.257 mg/kg		0.232 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				8.44 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 }				48 mg/kg	1.117	48.394 mg/kg	0.00484 %	✓	
		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:								0.0479 %		

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
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. 2; H225 "Highly flammable liquid and vapour."

Because of determinands:

tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane: (conc.: 0.00007%)

ethylbenzene: (conc.: 7.22e-06%)

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

xylene: (conc.: 0.00002%)

Classification of sample: WS08-22/01/2019-0.00-1.00m

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

Sample details

Sample Name:	LoW Code:
WS08-22/01/2019-0.00-1.00m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% 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	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
2	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				0.041 mg/kg		0.041 mg/kg	0.0000041 %	✓	
	603-181-00-X	216-653-1	1634-04-4							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				0.01 mg/kg		0.01 mg/kg	0.000001 %	✓	
	601-023-00-4	202-849-4	100-41-4							
6	xylene				0.021 mg/kg		0.021 mg/kg	0.0000021 %	✓	
	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]							
Total:								0.00521 %		

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)
- <LOD** Below limit of detection

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. 2; H225 "Highly flammable liquid and vapour."

Because of determinands:

tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane: (conc.: 4.1e-06%)
ethylbenzene: (conc.: 1.0e-06%)

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

xylene: (conc.: 2.1e-06%)

Classification of sample: WS08-22/01/2019-1.00-2.00m

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

Sample details

Sample Name: WS08-22/01/2019-1.00-2.00m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 14.8% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

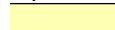



Determinands

Moisture content: 14.8% 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	2.04 mg/kg	0.000204 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				10 mg/kg	1.32	11.249 mg/kg	0.00112 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.8 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 }				52.9 mg/kg	1.462	65.873 mg/kg	0.00659 %	✓	
		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 }				21 mg/kg	1.126	20.144 mg/kg	0.00201 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	14 mg/kg	1.56	18.605 mg/kg	0.00119 %	✓	
	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 }				3.3 mg/kg	1.5	4.218 mg/kg	0.000422 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				26.4 mg/kg	2.976	66.945 mg/kg	0.00669 %	✓	
	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 }				76 mg/kg	2.774	179.632 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	<0.0000005 %		<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				0.008 mg/kg		0.0068 mg/kg	0.000000682 %	✓	
	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 }				51 mg/kg	1.117	48.514 mg/kg	0.00485 %	✓	
		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:								0.0469 %		

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
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.: 6.82e-07%)

Classification of sample: WS08-22/01/2019-2.00-3.00m


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

Sample details

Sample Name: WS08-22/01/2019-2.00-3.00m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 12.6% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

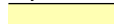



Determinands

Moisture content: 12.6% 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	2.093 mg/kg	0.000209 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				9.8 mg/kg	1.32	11.309 mg/kg	0.00113 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.6 mg/kg	1.142	1.597 mg/kg	0.00016 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				59.8 mg/kg	1.462	76.389 mg/kg	0.00764 %	✓	
		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	26.569 mg/kg	0.00266 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	18 mg/kg	1.56	24.539 mg/kg	0.00157 %	✓	
	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	4.72 mg/kg	0.000472 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				33.4 mg/kg	2.976	86.882 mg/kg	0.00869 %	✓	
	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 }				80 mg/kg	2.774	193.968 mg/kg	0.0194 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group				761 mg/kg		665.114 mg/kg	0.0665 %	✓	
			TPH							
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				0.755 mg/kg		0.66 mg/kg	0.000066 %	✓	
	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				0.049 mg/kg		0.0428 mg/kg	0.00000428 %	✓	
	601-023-00-4	202-849-4	100-41-4							
18	xylene				0.209 mg/kg		0.183 mg/kg	0.0000183 %	✓	
	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				0.08 mg/kg		0.0699 mg/kg	0.00000699 %	✓	
		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				0.14 mg/kg		0.122 mg/kg	0.0000122 %	✓	
		201-695-5	86-73-7							
24	phenanthrene				0.27 mg/kg		0.236 mg/kg	0.0000236 %	✓	
		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 }				70 mg/kg	1.117	68.308 mg/kg	0.00683 %	✓	
		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:								0.116 %		

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
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. 2; H225 "Highly flammable liquid and vapour."

Because of determinands:

tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane: (conc.: 0.00006%)

ethylbenzene: (conc.: 4.28e-06%)

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinands:

TPH (C6 to C40) petroleum group: (conc.: 0.0665%)

xylene: (conc.: 0.00001%)

Classification of sample: WS09-22/01/2019-0.00-1.00m

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

Sample details

Sample Name: **WS09-22/01/2019-0.00-1.00m** LoW Code: Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified


Determinands

Moisture content: 0% 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	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	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]							
Total:								0.0052 %		

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)
- <LOD** Below limit of detection

Classification of sample: WS09-22/01/2019-1.00-2.00m

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

Sample details

Sample Name: WS09-22/01/2019-1.00-2.00m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% 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	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
2	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
3	benzene 601-020-00-8 200-753-7 71-43-2				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
4	toluene 601-021-00-3 203-625-9 108-88-3				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
5	ethylbenzene 601-023-00-4 202-849-4 100-41-4				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
6	xylene 601-022-00-9 202-422-2 [1] 95-47-6 [1] 203-396-5 [2] 106-42-3 [2] 203-576-3 [3] 108-38-3 [3] 215-535-7 [4] 1330-20-7 [4]				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
Total:								0.0052 %		

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)
- <LOD** Below limit of detection

Classification of sample: WS09-22/01/2019-2.00-3.00m

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

Sample details

Sample Name: **WS09-22/01/2019-2.00-3.00m** LoW Code: Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified


Determinands

Moisture content: 0% 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	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	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]							
Total:								0.0052 %		

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)
- <LOD** Below limit of detection

Classification of sample: WS10-21/01/2019-0.00-1.00m

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

Sample details

Sample Name: WS10-21/01/2019-0.00-1.00m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% 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	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
2	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
3	benzene 601-020-00-8 200-753-7 71-43-2				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
4	toluene 601-021-00-3 203-625-9 108-88-3				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
5	ethylbenzene 601-023-00-4 202-849-4 100-41-4				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
6	xylene 601-022-00-9 202-422-2 [1] 95-47-6 [1] 203-396-5 [2] 106-42-3 [2] 203-576-3 [3] 108-38-3 [3] 215-535-7 [4] 1330-20-7 [4]				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
Total:								0.0052 %		

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)
- <LOD** Below limit of detection

Classification of sample: WS10-21/01/2019-1.00-2.00m

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

Sample details

Sample Name: **WS10-21/01/2019-1.00-2.00m** LoW Code: Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands


Moisture content: 0% 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	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	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]							
Total:								0.0052 %		

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)
- <LOD** Below limit of detection

Classification of sample: WS10-21/01/2019-2.00-3.00m

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

Sample details

Sample Name: WS10-21/01/2019-2.00-3.00m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 13.3% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

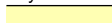



Determinands

Moisture content: 13.3% 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	2.076 mg/kg	0.000208 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				12.1 mg/kg	1.32	13.851 mg/kg	0.00139 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2.1 mg/kg	1.142	2.08 mg/kg	0.000208 %	✓	
	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	64.372 mg/kg	0.00644 %	✓	
		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	36.117 mg/kg	0.00361 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	21 mg/kg	1.56	28.4 mg/kg	0.00182 %	✓	
	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	6.243 mg/kg	0.000624 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				47.8 mg/kg	2.976	123.344 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	2.214 mg/kg	0.000221 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				104 mg/kg	2.774	250.139 mg/kg	0.025 %	✓	
	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				8.18 pH		8.18 pH	8.18 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	71.633 mg/kg	0.00716 %	✓	
		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:								0.0645 %		

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
 - CLP: Note 1 Only the metal concentration has been used for classification

Classification of sample: WS10-21/01/2019-3.00-4.00m

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

Sample details

Sample Name:	LoW Code:	
WS10-21/01/2019-3.00-4.00m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
11.8%		
(wet weight correction)		

Hazard properties

None identified

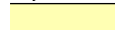



Determinands

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 }				10.1 mg/kg	1.32	11.762 mg/kg	0.00118 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.9 mg/kg	1.142	1.914 mg/kg	0.000191 %	✓	
	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	66.002 mg/kg	0.0066 %	✓	
		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	28.798 mg/kg	0.00288 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	21 mg/kg	1.56	28.891 mg/kg	0.00185 %	✓	
	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	5.557 mg/kg	0.000556 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				37.7 mg/kg	2.976	98.965 mg/kg	0.0099 %	✓	
	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 }				83 mg/kg	2.774	203.084 mg/kg	0.0203 %	✓	
	024-007-00-3									
13	TPH (C6 to C40) petroleum group		TPH		180 mg/kg		158.76 mg/kg	0.0159 %	✓	
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				0.007 mg/kg		0.0061 mg/kg	0.000000617 %	✓	
	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				8.19 pH		8.19 pH	8.19 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 }				66 mg/kg	1.117	64.994 mg/kg	0.0065 %	✓	
		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:								0.0665 %		

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
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 determinands:

TPH (C6 to C40) petroleum group: (conc.: 0.0159%)

xylene: (conc.: 6.17e-07%)

Classification of sample: WS11-21/01/2019-0.00-1.00m


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

Sample details

Sample Name:	LoW Code:
WS11-21/01/2019-0.00-1.00m	Chapter:
	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
	Entry:
	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands


Moisture content: 0% 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	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
2	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
3	benzene 601-020-00-8 200-753-7 71-43-2				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
4	toluene 601-021-00-3 203-625-9 108-88-3				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
5	ethylbenzene 601-023-00-4 202-849-4 100-41-4				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
6	xylene 601-022-00-9 202-422-2 [1] 95-47-6 [1] 203-396-5 [2] 106-42-3 [2] 203-576-3 [3] 108-38-3 [3] 215-535-7 [4] 1330-20-7 [4]				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
Total:								0.0052 %		

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)
- <LOD** Below limit of detection

Classification of sample: WS11-21/01/2019-1.00-2.00m



Hazardous Waste
Classified as **17 05 03 ***
in the List of Waste

Sample details

Sample Name:	LoW Code:	
WS11-21/01/2019-1.00-2.00m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
	Entry:	17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

HP 7: Carcinogenic "waste which induces cancer or increases its incidence"

Hazard Statements hit:

Carc. 1B; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.178%)

HP 11: Mutagenic "waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell"

Hazard Statements hit:

Muta. 1B; H340 "May cause genetic defects [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

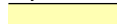



TPH (C6 to C40) petroleum group: (conc.: 0.178%)

Determinands

Moisture content: 0% 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	TPH (C6 to C40) petroleum group				1783 mg/kg		1783 mg/kg	0.178 %	✓	
			TPH							
2	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				2.907 mg/kg		2.907 mg/kg	0.000291 %	✓	
	603-181-00-X	216-653-1	1634-04-4							
3	benzene				0.282 mg/kg		0.282 mg/kg	0.0000282 %	✓	
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				3.397 mg/kg		3.397 mg/kg	0.00034 %	✓	
	601-023-00-4	202-849-4	100-41-4							
6	xylene				10.263 mg/kg		10.263 mg/kg	0.00103 %	✓	
	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]							
Total:								0.18 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

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. 2; H225 "Highly flammable liquid and vapour."

Because of determinands:

tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane: (conc.: 0.00029%)

benzene: (conc.: 0.00002%)

ethylbenzene: (conc.: 0.00034%)


Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinands:

TPH (C6 to C40) petroleum group: (conc.: 0.178%)

xylene: (conc.: 0.00103%)

Classification of sample: WS11-21/01/2019-2.00-3.00m



Hazardous Waste
Classified as **17 05 03 ***
in the List of Waste

Sample details

Sample Name:	LoW Code:	
WS11-21/01/2019-2.00-3.00m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
	Entry:	17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

HP 7: Carcinogenic "waste which induces cancer or increases its incidence"

Hazard Statements hit:

Carc. 1B; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.306%)

HP 11: Mutagenic "waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell"

Hazard Statements hit:

Muta. 1B; H340 "May cause genetic defects [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

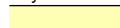



TPH (C6 to C40) petroleum group: (conc.: 0.306%)

Determinands

Moisture content: 0% 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	TPH (C6 to C40) petroleum group				3064 mg/kg		3064 mg/kg	0.306 %	✓	
			TPH							
2	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				5.007 mg/kg		5.007 mg/kg	0.000501 %	✓	
	603-181-00-X	216-653-1	1634-04-4							
3	benzene				0.395 mg/kg		0.395 mg/kg	0.0000395 %	✓	
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				8.582 mg/kg		8.582 mg/kg	0.000858 %	✓	
	601-023-00-4	202-849-4	100-41-4							
6	xylene				21.432 mg/kg		21.432 mg/kg	0.00214 %	✓	
	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]							
Total:								0.31 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

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. 2; H225 "Highly flammable liquid and vapour."

Because of determinands:

tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane: (conc.: 0.0005%)

benzene: (conc.: 0.00003%)

ethylbenzene: (conc.: 0.00085%)

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinands:

TPH (C6 to C40) petroleum group: (conc.: 0.306%)

xylene: (conc.: 0.00214%)

Classification of sample: WS12-22/01/2019-0.00-1.00m

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

Sample details

Sample Name: **WS12-22/01/2019-0.00-1.00m** LoW Code: Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% 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	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	xylene				0.011 mg/kg		0.011 mg/kg	0.0000011 %	✓	
	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]							
Total:								0.0052 %		

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)
- <LOD** Below limit of detection

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.: 1.1e-06%)

Classification of sample: WS12-22/01/2019-1.00-2.00m

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

Sample details

Sample Name: **WS12-22/01/2019-1.00-2.00m** LoW Code: Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% 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	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	xylene				0.011 mg/kg		0.011 mg/kg	0.0000011 %	✓	
	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]							
Total:								0.0052 %		

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)
- <LOD** Below limit of detection

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.: 1.1e-06%)

Classification of sample: WS12-22/01/2019-2.00-3.00m

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

Sample details

Sample Name: **WS12-22/01/2019-2.00-3.00m** LoW Code: Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands


Moisture content: 0% 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	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	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]							
Total:								0.0052 %		

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)
- <LOD** Below limit of detection

Classification of sample: WS13-22/01/2019-0.00-1.00m

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

Sample details

Sample Name:	LoW Code:
WS13-22/01/2019-0.00-1.00m	Chapter:
	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% 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	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				0.007 mg/kg		0.007 mg/kg	0.0000007 %	✓	
	601-023-00-4	202-849-4	100-41-4							
6	xylene				0.013 mg/kg		0.013 mg/kg	0.0000013 %	✓	
	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]							
Total:								0.0052 %		

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)
- <LOD Below limit of detection

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. 2; H225 "Highly flammable liquid and vapour."

Because of determinand:


ethylbenzene: (conc.: 7.0e-07%)

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

xylene: (conc.: 1.3e-06%)

Classification of sample: WS13-22/01/2019-1.00-2.00m


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

Sample details

Sample Name: WS13-22/01/2019-1.00-2.00m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% 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	● TPH (C6 to C40) petroleum group TPH				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
2	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
3	● benzene 601-020-00-8 200-753-7 71-43-2				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
4	toluene 601-021-00-3 203-625-9 108-88-3				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
5	● ethylbenzene 601-023-00-4 202-849-4 100-41-4				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
6	xylene 601-022-00-9 202-422-2 [1] 95-47-6 [1] 203-396-5 [2] 106-42-3 [2] 203-576-3 [3] 108-38-3 [3] 215-535-7 [4] 1330-20-7 [4]				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
Total:								0.0052 %		

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)
- <LOD Below limit of detection

Classification of sample: WS13-22/01/2019-2.00-3.00m

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

Sample details

Sample Name: **WS13-22/01/2019-2.00-3.00m** LoW Code: Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% 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	TPH (C6 to C40) petroleum group				<52 mg/kg		<52 mg/kg	<0.0052 %		<LOD
			TPH							
2	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							
3	benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
4	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
5	ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
6	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]							
Total:								0.0052 %		

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)
- <LOD** Below limit of detection

Appendix A: Classifier defined and non CLP determinands

• **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

• **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

• **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

• **confirm TPH has NOT arisen from diesel or petrol**

Description/Comments: Chapter 3, section 4b requires a positive confirmation for benzo[a]pyrene to be used as a marker in evaluating Carc. 1B; H350 (HP 7) and Muta. 1B; H340 (HP 11)
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

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) Worst 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: 2019.38.3777.7713 (07 Feb 2019)
HazWasteOnline Database: 2019.38.3777.7713 (07 Feb 2019)

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

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
13	TP-08-22/01/2019-0.50m		Non Hazardous		39
14	TP-08-22/01/2019-1.50m		Non Hazardous		42
15	TP-09-22/01/2019-0.50m		Non Hazardous		45
16	TP-09-22/01/2019-1.50m		Non Hazardous		48
17	TP-14-22/01/2019-1.00m		Hazardous	HP 7, HP 11	51
18	TP-14-22/01/2019-2.00m		Hazardous	HP 7, HP 11	54
19	TP-14-22/01/2019-3.00m		Hazardous	HP 7, HP 11	57
20	TP-20-21/01/2019-0.50m		Non Hazardous		60
21	TP-20-21/01/2019-1.50m		Non Hazardous		63

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Appendix B: Rationale for selection of metal species	67
Appendix C: Version	68

Classification of sample: TP-01-21/01/2019-0.50m

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

Sample details

Sample Name: TP-01-21/01/2019-0.50m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 14.8% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

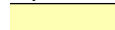



Determinands

Moisture content: 14.8% 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	2.04	mg/kg	0.000204 %	✓	
	051-005-00-X	215-175-0	1309-64-4									
2	arsenic { arsenic trioxide }				16.1	mg/kg	1.32	18.111	mg/kg	0.00181 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium oxide }				2.6	mg/kg	1.142	2.53	mg/kg	0.000253 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
4	chromium in chromium(III) compounds { chromium(III) oxide }				88.9	mg/kg	1.462	110.702	mg/kg	0.0111 %	✓	
		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	25.9	mg/kg	0.00259 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	24	mg/kg	1.56	31.895	mg/kg	0.00204 %	✓	
	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	4.601	mg/kg	0.00046 %	✓	
	042-001-00-9	215-204-7	1313-27-5									
10	nickel { nickel chromate }				48.1	mg/kg	2.976	121.971	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 }				2	mg/kg	2.554	4.351	mg/kg	0.000435 %	✓	
	034-002-00-8											
12	zinc { zinc chromate }				107	mg/kg	2.774	252.902	mg/kg	0.0253 %	✓	
	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 }				143 mg/kg	1.117	136.031 mg/kg	0.0136 %	✓	
		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:								0.0754 %		

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
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP-02-21/01/2019-0.60m

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

Sample details

Sample Name: TP-02-21/01/2019-0.60m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 13.1% (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: 13.1% 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	2.081 mg/kg	0.000208 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				10.9 mg/kg	1.32	12.506 mg/kg	0.00125 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.9 mg/kg	1.142	1.886 mg/kg	0.000189 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				42.7 mg/kg	1.462	54.233 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 }				27 mg/kg	1.126	26.417 mg/kg	0.00264 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	17 mg/kg	1.56	23.043 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 }				3.2 mg/kg	1.5	4.172 mg/kg	0.000417 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				40 mg/kg	2.976	103.455 mg/kg	0.0103 %	✓	
	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	2.219 mg/kg	0.000222 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				88 mg/kg	2.774	212.145 mg/kg	0.0212 %	✓	
	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				8.76 pH		8.76 pH	8.76 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 }				73 mg/kg	1.117	70.828 mg/kg	0.00708 %	✓	
		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:								0.0559 %		

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
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP-03-22/01/2019-0.50m

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

Sample details

Sample Name: TP-03-22/01/2019-0.50m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 18.8% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

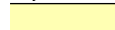



Determinands


Moisture content: 18.8% 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	2.916	mg/kg	0.000292 %	✓	
	051-005-00-X	215-175-0	1309-64-4									
2	arsenic { arsenic trioxide }				16.3	mg/kg	1.32	17.475	mg/kg	0.00175 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium oxide }				2.7	mg/kg	1.142	2.504	mg/kg	0.00025 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
4	chromium in chromium(III) compounds { chromium(III) oxide }				73.1	mg/kg	1.462	86.754	mg/kg	0.00868 %	✓	
		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 }				35	mg/kg	1.126	31.998	mg/kg	0.0032 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	70	mg/kg	1.56	88.66	mg/kg	0.00568 %	✓	
	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	6.7	mg/kg	0.00067 %	✓	
	042-001-00-9	215-204-7	1313-27-5									
10	nickel { nickel chromate }				53.5	mg/kg	2.976	129.295	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 }				2	mg/kg	2.554	4.147	mg/kg	0.000415 %	✓	
	034-002-00-8											
12	zinc { zinc chromate }				138	mg/kg	2.774	310.86	mg/kg	0.0311 %	✓	
	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				8.4 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				0.05 mg/kg		0.0406 mg/kg	0.00000406 %	✓	
		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				0.1 mg/kg		0.0812 mg/kg	0.00000812 %	✓	
		205-912-4	206-44-0							
27	pyrene				0.1 mg/kg		0.0812 mg/kg	0.00000812 %	✓	
		204-927-3	129-00-0							
28	benzo[a]anthracene				0.1 mg/kg		0.0812 mg/kg	0.00000812 %	✓	
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				0.06 mg/kg		0.0487 mg/kg	0.00000487 %	✓	
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				0.08 mg/kg		0.065 mg/kg	0.0000065 %	✓	
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				0.03 mg/kg		0.0244 mg/kg	0.00000244 %	✓	
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				0.06 mg/kg		0.0487 mg/kg	0.00000487 %	✓	
	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 }				165 mg/kg	1.117	149.589 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:								0.0854 %		

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
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP-04-22/01/2019-1.00m

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

Sample details

Sample Name: TP-04-22/01/2019-1.00m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 15.3% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

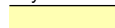



Determinands

Moisture content: 15.3% 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	2.028 mg/kg	0.000203 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				10.1 mg/kg	1.32	11.295 mg/kg	0.00113 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.8 mg/kg	1.142	1.742 mg/kg	0.000174 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				54.8 mg/kg	1.462	67.839 mg/kg	0.00678 %	✓	
		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	25.748 mg/kg	0.00257 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	18 mg/kg	1.56	23.781 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 }				4.2 mg/kg	1.5	5.337 mg/kg	0.000534 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				35.7 mg/kg	2.976	89.996 mg/kg	0.009 %	✓	
	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	2.163 mg/kg	0.000216 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				101 mg/kg	2.774	237.32 mg/kg	0.0237 %	✓	
	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				8.8 pH		8.8 pH	8.8 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	59.578 mg/kg	0.00596 %	✓	
		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
 - CLP: Note 1 Only the metal concentration has been used for classification

Classification of sample: TP-05-22/01/2019-0.80m

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

Sample details

Sample Name: TP-05-22/01/2019-0.80m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 20.7% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

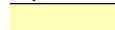



Determinands


Moisture content: 20.7% 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	1.899 mg/kg	0.00019 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				15.4 mg/kg	1.32	16.124 mg/kg	0.00161 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2.9 mg/kg	1.142	2.627 mg/kg	0.000263 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				76.8 mg/kg	1.462	89.012 mg/kg	0.0089 %	✓	
		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	29.463 mg/kg	0.00295 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	142 mg/kg	1.56	175.645 mg/kg	0.0113 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.1 mg/kg	1.353	0.107 mg/kg	0.0000107 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				5.7 mg/kg	1.5	6.781 mg/kg	0.000678 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				51.6 mg/kg	2.976	121.785 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 }				2 mg/kg	2.554	4.05 mg/kg	0.000405 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				144 mg/kg	2.774	316.785 mg/kg	0.0317 %	✓	
	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				8.52 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				0.05 mg/kg		0.0396 mg/kg	0.00000396 %	✓	
		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				0.1 mg/kg		0.0793 mg/kg	0.00000793 %	✓	
		205-912-4	206-44-0							
27	pyrene				0.1 mg/kg		0.0793 mg/kg	0.00000793 %	✓	
		204-927-3	129-00-0							
28	benzo[a]anthracene				0.1 mg/kg		0.0793 mg/kg	0.00000793 %	✓	
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				0.08 mg/kg		0.0634 mg/kg	0.00000634 %	✓	
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				0.1 mg/kg		0.0793 mg/kg	0.00000793 %	✓	
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				0.04 mg/kg		0.0317 mg/kg	0.00000317 %	✓	
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				0.08 mg/kg		0.0634 mg/kg	0.00000634 %	✓	
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				0.05 mg/kg		0.0396 mg/kg	0.00000396 %	✓	
		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				0.06 mg/kg		0.0476 mg/kg	0.00000476 %	✓	
		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	107.132 mg/kg	0.0107 %	✓	
		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:								0.0863 %		

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
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP-06-21/01/2019-0.50m

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

Sample details

Sample Name: TP-06-21/01/2019-0.50m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 14.1% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

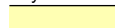



Determinands

Moisture content: 14.1% 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	2.057 mg/kg	0.000206 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				7.7 mg/kg	1.32	8.733 mg/kg	0.000873 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.7 mg/kg	1.142	1.668 mg/kg	0.000167 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				77.4 mg/kg	1.462	97.174 mg/kg	0.00972 %	✓	
		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 }				18 mg/kg	1.126	17.408 mg/kg	0.00174 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	12 mg/kg	1.56	16.079 mg/kg	0.00103 %	✓	
	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 }				3.3 mg/kg	1.5	4.253 mg/kg	0.000425 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				31.6 mg/kg	2.976	80.789 mg/kg	0.00808 %	✓	
	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 }				61 mg/kg	2.774	145.363 mg/kg	0.0145 %	✓	
	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				8.62 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 }				87 mg/kg	1.117	83.44 mg/kg	0.00834 %	✓	
		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:								0.0508 %		

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
 - CLP: Note 1 Only the metal concentration has been used for classification

Classification of sample: TP-06-21/01/2019-1.50m

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

Sample details

Sample Name: TP-06-21/01/2019-1.50m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 12.5% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

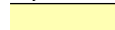



Determinands

Moisture content: 12.5% 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	2.095 mg/kg	0.000209 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				11.3 mg/kg	1.32	13.055 mg/kg	0.00131 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2.1 mg/kg	1.142	2.099 mg/kg	0.00021 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				50 mg/kg	1.462	63.943 mg/kg	0.00639 %	✓	
		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	31.525 mg/kg	0.00315 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	16 mg/kg	1.56	21.837 mg/kg	0.0014 %	✓	
	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	4.594 mg/kg	0.000459 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				44.4 mg/kg	2.976	115.628 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 }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
12	zinc { zinc chromate }				96 mg/kg	2.774	233.028 mg/kg	0.0233 %	✓	
	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				8.74 pH		8.74 pH	8.74 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 }				81 mg/kg	1.117	79.132 mg/kg	0.00791 %	✓	
		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:								0.0616 %		

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
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP-07-21/01/2019-0.50m


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

Sample details

Sample Name: TP-07-21/01/2019-0.50m	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

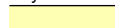



Determinands

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 }				1 mg/kg	1.197	1.055 mg/kg	0.000105 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				7.6 mg/kg	1.32	8.84 mg/kg	0.000884 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.8 mg/kg	1.142	1.812 mg/kg	0.000181 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				40.1 mg/kg	1.462	51.634 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 }				26 mg/kg	1.126	25.79 mg/kg	0.00258 %	✓	
	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 }				3.4 mg/kg	1.5	4.494 mg/kg	0.000449 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				21.2 mg/kg	2.976	55.588 mg/kg	0.00556 %	✓	
	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 }				66 mg/kg	2.774	161.306 mg/kg	0.0161 %	✓	
	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				8.94 pH		8.94 pH	8.94 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 }				36 mg/kg	1.117	35.411 mg/kg	0.00354 %	✓	
		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:								0.0413 %		

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
 - CLP: Note 1 Only the metal concentration has been used for classification

Classification of sample: TP-07-21/01/2019-1.50m

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

Sample details

Sample Name: TP-07-21/01/2019-1.50m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 12.5% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

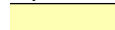



Determinands


Moisture content: 12.5% 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	2.095 mg/kg	0.000209 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				7.8 mg/kg	1.32	9.011 mg/kg	0.000901 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.8 mg/kg	1.142	1.799 mg/kg	0.00018 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				54.6 mg/kg	1.462	69.826 mg/kg	0.00698 %	✓	
		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	22.659 mg/kg	0.00227 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	14 mg/kg	1.56	19.108 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 }				3.4 mg/kg	1.5	4.463 mg/kg	0.000446 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				29.7 mg/kg	2.976	77.346 mg/kg	0.00773 %	✓	
	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	2.234 mg/kg	0.000223 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				80 mg/kg	2.774	194.19 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	<0.000005 %		<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				8.78 pH		8.78 pH	8.78 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 }				62 mg/kg	1.117	60.57 mg/kg	0.00606 %	✓	
		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:								0.0511 %		

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
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP-07-21/01/2019-2.50m

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

Sample details

Sample Name: TP-07-21/01/2019-2.50m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 12.8% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

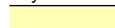



Determinands

Moisture content: 12.8% 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	1.044 mg/kg	0.000104 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				7.7 mg/kg	1.32	8.865 mg/kg	0.000887 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.4 mg/kg	1.142	1.395 mg/kg	0.000139 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				47.5 mg/kg	1.462	60.538 mg/kg	0.00605 %	✓	
		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 }				21 mg/kg	1.126	20.617 mg/kg	0.00206 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	12 mg/kg	1.56	16.322 mg/kg	0.00105 %	✓	
	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 }				2.8 mg/kg	1.5	3.663 mg/kg	0.000366 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				29.2 mg/kg	2.976	75.783 mg/kg	0.00758 %	✓	
	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 }				67 mg/kg	2.774	162.077 mg/kg	0.0162 %	✓	
	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				8.91 pH		8.91 pH	8.91 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	63.284 mg/kg	0.00633 %	✓	
		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:								0.0465 %		

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
 - CLP: Note 1 Only the metal concentration has been used for classification

Classification of sample: TP-07A-21/01/2019-0.50m

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

Sample details

Sample Name: TP-07A-21/01/2019-0.50m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 18.9% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

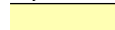



Determinands


Moisture content: 18.9% 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 }				3	mg/kg	1.197	2.913	mg/kg	0.000291 %	✓	
	051-005-00-X	215-175-0	1309-64-4									
2	arsenic { arsenic trioxide }				15.8	mg/kg	1.32	16.918	mg/kg	0.00169 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium oxide }				3	mg/kg	1.142	2.779	mg/kg	0.000278 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
4	chromium in chromium(III) compounds { chromium(III) oxide }				66.8	mg/kg	1.462	79.179	mg/kg	0.00792 %	✓	
		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	28.306	mg/kg	0.00283 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	26	mg/kg	1.56	32.89	mg/kg	0.00211 %	✓	
	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 }				5.6	mg/kg	1.5	6.813	mg/kg	0.000681 %	✓	
	042-001-00-9	215-204-7	1313-27-5									
10	nickel { nickel chromate }				54.4	mg/kg	2.976	131.308	mg/kg	0.0131 %	✓	
	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	4.142	mg/kg	0.000414 %	✓	
	034-002-00-8											
12	zinc { zinc chromate }				134	mg/kg	2.774	301.478	mg/kg	0.0301 %	✓	
	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				8.18 pH		8.18 pH	8.18 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	133.106 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:								0.0782 %		

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
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP-07A-21/01/2019-1.50m

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

Sample details

Sample Name: TP-07A-21/01/2019-1.50m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 14.6% (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: 14.6% 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	2.045 mg/kg	0.000204 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				12.2 mg/kg	1.32	13.756 mg/kg	0.00138 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				3.5 mg/kg	1.142	3.414 mg/kg	0.000341 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				59.7 mg/kg	1.462	74.516 mg/kg	0.00745 %	✓	
		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	35.576 mg/kg	0.00356 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	25 mg/kg	1.56	33.302 mg/kg	0.00214 %	✓	
	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 }				6.2 mg/kg	1.5	7.943 mg/kg	0.000794 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				61 mg/kg	2.976	155.046 mg/kg	0.0155 %	✓	
	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	6.542 mg/kg	0.000654 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				107 mg/kg	2.774	253.496 mg/kg	0.0253 %	✓	
	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				8.57 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 }				255 mg/kg	1.117	243.141 mg/kg	0.0243 %	✓	
		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:								0.0871 %		

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
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP-08-22/01/2019-0.50m

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

Sample details

Sample Name: TP-08-22/01/2019-0.50m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 19.3% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

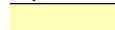



Determinands


Moisture content: 19.3% 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 }				3 mg/kg	1.197	2.898 mg/kg	0.00029 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				17.8 mg/kg	1.32	18.966 mg/kg	0.0019 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				3 mg/kg	1.142	2.766 mg/kg	0.000277 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				67.6 mg/kg	1.462	79.733 mg/kg	0.00797 %	✓	
		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 }				42 mg/kg	1.126	38.161 mg/kg	0.00382 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	35 mg/kg	1.56	44.057 mg/kg	0.00282 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.3 mg/kg	1.353	0.328 mg/kg	0.0000328 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				5.8 mg/kg	1.5	7.022 mg/kg	0.000702 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				66.7 mg/kg	2.976	160.203 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 }				2 mg/kg	2.554	4.122 mg/kg	0.000412 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				143 mg/kg	2.774	320.139 mg/kg	0.032 %	✓	
	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 }				139 mg/kg	1.117	125.242 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:								0.0842 %		

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
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP-08-22/01/2019-1.50m

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

Sample details

Sample Name: TP-08-22/01/2019-1.50m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 15.5% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

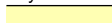



Determinands

Moisture content: 15.5% 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	2.023 mg/kg	0.000202 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				14.6 mg/kg	1.32	16.289 mg/kg	0.00163 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2.6 mg/kg	1.142	2.51 mg/kg	0.000251 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				70 mg/kg	1.462	86.451 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 }				40 mg/kg	1.126	38.055 mg/kg	0.00381 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	26 mg/kg	1.56	34.269 mg/kg	0.0022 %	✓	
	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	6.085 mg/kg	0.000608 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				54.4 mg/kg	2.976	136.813 mg/kg	0.0137 %	✓	
	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	2.158 mg/kg	0.000216 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				116 mg/kg	2.774	271.922 mg/kg	0.0272 %	✓	
	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				8.46 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 }				99 mg/kg	1.117	93.401 mg/kg	0.00934 %	✓	
		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
 - CLP: Note 1 Only the metal concentration has been used for classification

Classification of sample: TP-09-22/01/2019-0.50m

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

Sample details

Sample Name: TP-09-22/01/2019-0.50m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 23% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

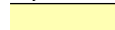



Determinands

Moisture content: 23% 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	2.765	mg/kg	0.000277 %	✓	
	051-005-00-X	215-175-0	1309-64-4									
2	arsenic { arsenic trioxide }				18.6	mg/kg	1.32	18.91	mg/kg	0.00189 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium oxide }				2.5	mg/kg	1.142	2.199	mg/kg	0.00022 %	✓	
	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	89.582	mg/kg	0.00896 %	✓	
		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 }				44	mg/kg	1.126	38.145	mg/kg	0.00381 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	84	mg/kg	1.56	100.889	mg/kg	0.00647 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.2	mg/kg	1.353	0.208	mg/kg	0.0000208 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	molybdenum { molybdenum(VI) oxide }				4.9	mg/kg	1.5	5.66	mg/kg	0.000566 %	✓	
	042-001-00-9	215-204-7	1313-27-5									
10	nickel { nickel chromate }				47.3	mg/kg	2.976	108.399	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 }				2	mg/kg	2.554	3.933	mg/kg	0.000393 %	✓	
	034-002-00-8											
12	zinc { zinc chromate }				139	mg/kg	2.774	296.917	mg/kg	0.0297 %	✓	
	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				8.35 pH		8.35 pH	8.35 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		0.0462 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				0.09 mg/kg		0.0693 mg/kg	0.00000693 %	✓	
		205-912-4	206-44-0							
27	pyrene				0.1 mg/kg		0.077 mg/kg	0.0000077 %	✓	
		204-927-3	129-00-0							
28	benzo[a]anthracene				0.1 mg/kg		0.077 mg/kg	0.0000077 %	✓	
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				0.08 mg/kg		0.0616 mg/kg	0.00000616 %	✓	
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				0.1 mg/kg		0.077 mg/kg	0.0000077 %	✓	
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				0.04 mg/kg		0.0308 mg/kg	0.00000308 %	✓	
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				0.08 mg/kg		0.0616 mg/kg	0.00000616 %	✓	
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				0.06 mg/kg		0.0462 mg/kg	0.00000462 %	✓	
		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				0.05 mg/kg		0.0385 mg/kg	0.00000385 %	✓	
		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 }				125 mg/kg	1.117	107.464 mg/kg	0.0107 %	✓	
		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:								0.0793 %		

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
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP-09-22/01/2019-1.50m

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

Sample details

Sample Name: TP-09-22/01/2019-1.50m	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

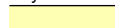



Determinands

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 }				2 mg/kg	1.197	2.148 mg/kg	0.000215 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				10.4 mg/kg	1.32	12.317 mg/kg	0.00123 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.9 mg/kg	1.142	1.947 mg/kg	0.000195 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				54.6 mg/kg	1.462	71.581 mg/kg	0.00716 %	✓	
		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	32.317 mg/kg	0.00323 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	17 mg/kg	1.56	23.786 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	5.114 mg/kg	0.000511 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				42.4 mg/kg	2.976	113.196 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 }				1 mg/kg	2.554	2.291 mg/kg	0.000229 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				91 mg/kg	2.774	226.445 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				<0.01 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				8.86 pH		8.86 pH	8.86 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	69.104 mg/kg	0.00691 %	✓	
		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:								0.0606 %		

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
 - CLP: Note 1 Only the metal concentration has been used for classification

Classification of sample: TP-14-22/01/2019-1.00m



Hazardous Waste
Classified as **17 05 03 ***
in the List of Waste

Sample details

Sample Name:	LoW Code:	
TP-14-22/01/2019-1.00m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry:	17 05 03 * (Soil and stones containing hazardous substances)
14.5% (wet weight correction)		

Hazard properties

HP 7: Carcinogenic "waste which induces cancer or increases its incidence"

Hazard Statements hit:

Carc. 1B; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.462%)

HP 11: Mutagenic "waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell"

Hazard Statements hit:

Muta. 1B; H340 "May cause genetic defects [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.462%)

Determinands

Moisture content: 14.5% 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	2.047 mg/kg	0.000205 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				11.8 mg/kg	1.32	13.321 mg/kg	0.00133 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				2.2 mg/kg	1.142	2.149 mg/kg	0.000215 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				60.1 mg/kg	1.462	75.103 mg/kg	0.00751 %	✓	
		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 }				41 mg/kg	1.126	39.468 mg/kg	0.00395 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	157 mg/kg	1.56	209.382 mg/kg	0.0134 %	✓	
	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							

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
9	molybdenum { molybdenum(VI) oxide }				3.6	mg/kg	1.5	4.618	mg/kg	0.000462 %	✓	
	042-001-00-9	215-204-7	1313-27-5									
10	nickel { nickel chromate }				44	mg/kg	2.976	111.967	mg/kg	0.0112 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
11	selenium { selenium compounds with the exception of cadmium selenosulfide and those specified elsewhere in this Annex }				1	mg/kg	2.554	2.183	mg/kg	0.000218 %	✓	
	034-002-00-8											
12	zinc { zinc chromate }				139	mg/kg	2.774	329.693	mg/kg	0.033 %	✓	
	024-007-00-3											
13	TPH (C6 to C40) petroleum group				5401	mg/kg		4617.855	mg/kg	0.462 %	✓	
			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									
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				0.013	mg/kg		0.0111	mg/kg	0.00000111 %	✓	
	601-023-00-4	202-849-4	100-41-4									
18	xylene				0.045	mg/kg		0.0385	mg/kg	0.00000385 %	✓	
	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				0.15	mg/kg		0.128	mg/kg	0.0000128 %	✓	
	601-052-00-2	202-049-5	91-20-3									
21	acenaphthylene				0.15	mg/kg		0.128	mg/kg	0.0000128 %	✓	
		205-917-1	208-96-8									
22	acenaphthene				0.09	mg/kg		0.0769	mg/kg	0.00000769 %	✓	
		201-469-6	83-32-9									
23	fluorene				0.39	mg/kg		0.333	mg/kg	0.0000333 %	✓	
		201-695-5	86-73-7									
24	phenanthrene				1.51	mg/kg		1.291	mg/kg	0.000129 %	✓	
		201-581-5	85-01-8									
25	anthracene				0.3	mg/kg		0.257	mg/kg	0.0000257 %	✓	
		204-371-1	120-12-7									
26	fluoranthene				1.06	mg/kg		0.906	mg/kg	0.0000906 %	✓	
		205-912-4	206-44-0									
27	pyrene				2.8	mg/kg		2.394	mg/kg	0.000239 %	✓	
		204-927-3	129-00-0									
28	benzo[a]anthracene				0.59	mg/kg		0.504	mg/kg	0.0000504 %	✓	
	601-033-00-9	200-280-6	56-55-3									
29	chrysene				0.37	mg/kg		0.316	mg/kg	0.0000316 %	✓	
	601-048-00-0	205-923-4	218-01-9									
30	benzo[b]fluoranthene				0.5	mg/kg		0.428	mg/kg	0.0000428 %	✓	
	601-034-00-4	205-911-9	205-99-2									
31	benzo[k]fluoranthene				0.19	mg/kg		0.162	mg/kg	0.0000162 %	✓	
	601-036-00-5	205-916-6	207-08-9									
32	benzo[a]pyrene; benzo[def]chrysene				0.6	mg/kg		0.513	mg/kg	0.0000513 %	✓	
	601-032-00-3	200-028-5	50-32-8									
33	indeno[123-cd]pyrene				0.36	mg/kg		0.308	mg/kg	0.0000308 %	✓	
		205-893-2	193-39-5									
34	dibenz[a,h]anthracene				0.05	mg/kg		0.0428	mg/kg	0.00000428 %	✓	
	601-041-00-2	200-181-8	53-70-3									
35	benzo[ghi]perylene				1.64	mg/kg		1.402	mg/kg	0.00014 %	✓	
		205-883-8	191-24-2									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
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	71.596 mg/kg	0.00716 %	✓	
		215-127-9	1304-28-5							
38	coronene				0.62 mg/kg		0.53 mg/kg	0.000053 %	✓	
		205-881-7	191-07-1							
39	benzo[<i>j</i>]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.542 %		

Key

- User supplied data
- Determinand values ignored for classification, see column 'Conc. Not Used' for reason
- Hazardous result
- 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
- 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. 2; H225 "Highly flammable liquid and vapour."

Because of determinand:


ethylbenzene: (conc.: 1.11e-06%)

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinands:

TPH (C6 to C40) petroleum group: (conc.: 0.462%)

xylene: (conc.: 3.85e-06%)

Classification of sample: TP-14-22/01/2019-2.00m
 **Hazardous Waste**
 Classified as **17 05 03 ***
 in the List of Waste

Sample details

Sample Name:	LoW Code:
TP-14-22/01/2019-2.00m	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 03 * (Soil and stones containing hazardous substances)
10.1% (wet weight correction)	

Hazard properties
HP 7: Carcinogenic "waste which induces cancer or increases its incidence"

Hazard Statements hit:

Carc. 1B; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.521%)

HP 11: Mutagenic "waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell"

Hazard Statements hit:

Muta. 1B; H340 "May cause genetic defects [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.521%)

Determinands

Moisture content: 10.1% 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 }				1	mg/kg	1.197	1.076	mg/kg	0.000108 %	✓	
	051-005-00-X	215-175-0	1309-64-4									
2	arsenic { arsenic trioxide }				7.2	mg/kg	1.32	8.546	mg/kg	0.000855 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium oxide }				1.7	mg/kg	1.142	1.746	mg/kg	0.000175 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
4	chromium in chromium(III) compounds { chromium(III) oxide }				45.7	mg/kg	1.462	60.047	mg/kg	0.006 %	✓	
		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	26.317	mg/kg	0.00263 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	65	mg/kg	1.56	91.148	mg/kg	0.00584 %	✓	
	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									

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
9	molybdenum { molybdenum(VI) oxide }				2.8	mg/kg	1.5	3.776	mg/kg	0.000378 %	✓	
	042-001-00-9	215-204-7	1313-27-5									
10	nickel { nickel chromate }				22.7	mg/kg	2.976	60.738	mg/kg	0.00607 %	✓	
	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	2.296	mg/kg	0.00023 %	✓	
	034-002-00-8											
12	zinc { zinc chromate }				68	mg/kg	2.774	169.589	mg/kg	0.017 %	✓	
	024-007-00-3											
13	TPH (C6 to C40) petroleum group				5796	mg/kg		5210.604	mg/kg	0.521 %	✓	
			TPH									
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				0.021	mg/kg		0.0189	mg/kg	0.00000189 %	✓	
	603-181-00-X	216-653-1	1634-04-4									
15	benzene				0.022	mg/kg		0.0198	mg/kg	0.00000198 %	✓	
	601-020-00-8	200-753-7	71-43-2									
16	toluene				0.007	mg/kg		0.0062	mg/kg	0.000000629 %	✓	
	601-021-00-3	203-625-9	108-88-3									
17	ethylbenzene				0.1	mg/kg		0.0899	mg/kg	0.00000899 %	✓	
	601-023-00-4	202-849-4	100-41-4									
18	xylene				0.347	mg/kg		0.312	mg/kg	0.0000312 %	✓	
	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				1.45	mg/kg		1.304	mg/kg	0.00013 %	✓	
	601-052-00-2	202-049-5	91-20-3									
21	acenaphthylene				0.28	mg/kg		0.252	mg/kg	0.0000252 %	✓	
		205-917-1	208-96-8									
22	acenaphthene				0.1	mg/kg		0.0899	mg/kg	0.00000899 %	✓	
		201-469-6	83-32-9									
23	fluorene				0.54	mg/kg		0.485	mg/kg	0.0000485 %	✓	
		201-695-5	86-73-7									
24	phenanthrene				2.19	mg/kg		1.969	mg/kg	0.000197 %	✓	
		201-581-5	85-01-8									
25	anthracene				0.42	mg/kg		0.378	mg/kg	0.0000378 %	✓	
		204-371-1	120-12-7									
26	fluoranthene				1.15	mg/kg		1.034	mg/kg	0.000103 %	✓	
		205-912-4	206-44-0									
27	pyrene				2.86	mg/kg		2.571	mg/kg	0.000257 %	✓	
		204-927-3	129-00-0									
28	benzo[a]anthracene				0.59	mg/kg		0.53	mg/kg	0.000053 %	✓	
	601-033-00-9	200-280-6	56-55-3									
29	chrysene				0.36	mg/kg		0.324	mg/kg	0.0000324 %	✓	
	601-048-00-0	205-923-4	218-01-9									
30	benzo[b]fluoranthene				0.33	mg/kg		0.297	mg/kg	0.0000297 %	✓	
	601-034-00-4	205-911-9	205-99-2									
31	benzo[k]fluoranthene				0.13	mg/kg		0.117	mg/kg	0.0000117 %	✓	
	601-036-00-5	205-916-6	207-08-9									
32	benzo[a]pyrene; benzo[def]chrysene				0.43	mg/kg		0.387	mg/kg	0.0000387 %	✓	
	601-032-00-3	200-028-5	50-32-8									
33	indeno[123-cd]pyrene				0.17	mg/kg		0.153	mg/kg	0.0000153 %	✓	
		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				0.82	mg/kg		0.737	mg/kg	0.0000737 %	✓	
		205-883-8	191-24-2									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
36	<ul style="list-style-type: none"> polychlorobiphenyls; PCB 				<0.035 mg/kg		<0.035 mg/kg	<0.0000035 %		<LOD
	602-039-00-4	215-648-1	1336-36-3							
37	<ul style="list-style-type: none"> barium { <ul style="list-style-type: none"> barium oxide 				51 mg/kg	1.117	51.191 mg/kg	0.00512 %	✓	
		215-127-9	1304-28-5							
38	<ul style="list-style-type: none"> coronene 				0.28 mg/kg		0.252 mg/kg	0.0000252 %	✓	
		205-881-7	191-07-1							
39	<ul style="list-style-type: none"> benzo[<i>jj</i>]fluoranthene 				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.567 %		

Key

- User supplied data
- Determinand values ignored for classification, see column 'Conc. Not Used' for reason
- Hazardous result
- 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
- 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. 2; H225 "Highly flammable liquid and vapour."

Because of determinands:

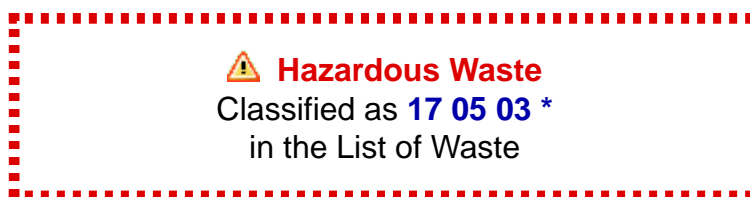
tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane: (conc.: 1.89e-06%)
 benzene: (conc.: 1.98e-06%)
 toluene: (conc.: 6.29e-07%)
 ethylbenzene: (conc.: 8.99e-06%)

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinands:

TPH (C6 to C40) petroleum group: (conc.: 0.521%)
 xylene: (conc.: 0.00003%)

Classification of sample: TP-14-22/01/2019-3.00m



Sample details

Sample Name: TP-14-22/01/2019-3.00m	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 12% (wet weight correction)	Entry:	17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

HP 7: Carcinogenic "waste which induces cancer or increases its incidence"

Hazard Statements hit:

Carc. 1B; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.472%)

HP 11: Mutagenic "waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell"

Hazard Statements hit:

Muta. 1B; H340 "May cause genetic defects [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.472%)

Determinands

Moisture content: 12% 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	2.107 mg/kg	0.000211 %	✓	
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	9.2 mg/kg	1.32	10.689 mg/kg	0.00107 %	✓	
3	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	1.9 mg/kg	1.142	1.91 mg/kg	0.000191 %	✓	
4	chromium in chromium(III) compounds { chromium(III) oxide }		215-160-9	1308-38-9	54.7 mg/kg	1.462	70.353 mg/kg	0.00704 %	✓	
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	23 mg/kg	1.126	22.788 mg/kg	0.00228 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	24 mg/kg	1.56	32.943 mg/kg	0.00211 %	✓	
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

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
9	molybdenum { molybdenum(VI) oxide }				2.8	mg/kg	1.5	3.696	mg/kg	0.00037 %	✓	
	042-001-00-9	215-204-7	1313-27-5									
10	nickel { nickel chromate }				34.2	mg/kg	2.976	89.574	mg/kg	0.00896 %	✓	
	028-035-00-7	238-766-5	14721-18-7									
11	selenium { selenium compounds with the exception of cadmium selenide 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 }				79	mg/kg	2.774	192.859	mg/kg	0.0193 %	✓	
	024-007-00-3											
13	TPH (C6 to C40) petroleum group				5358	mg/kg		4715.04	mg/kg	0.472 %	✓	
			TPH									
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				0.018	mg/kg		0.0158	mg/kg	0.00000158 %	✓	
	603-181-00-X	216-653-1	1634-04-4									
15	benzene				0.012	mg/kg		0.0106	mg/kg	0.00000106 %	✓	
	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				0.014	mg/kg		0.0123	mg/kg	0.00000123 %	✓	
	601-023-00-4	202-849-4	100-41-4									
18	xylene				0.032	mg/kg		0.0282	mg/kg	0.00000282 %	✓	
	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				0.16	mg/kg		0.141	mg/kg	0.0000141 %	✓	
	601-052-00-2	202-049-5	91-20-3									
21	acenaphthylene				0.14	mg/kg		0.123	mg/kg	0.0000123 %	✓	
		205-917-1	208-96-8									
22	acenaphthene				0.09	mg/kg		0.0792	mg/kg	0.00000792 %	✓	
		201-469-6	83-32-9									
23	fluorene				0.41	mg/kg		0.361	mg/kg	0.0000361 %	✓	
		201-695-5	86-73-7									
24	phenanthrene				1.54	mg/kg		1.355	mg/kg	0.000136 %	✓	
		201-581-5	85-01-8									
25	anthracene				0.3	mg/kg		0.264	mg/kg	0.0000264 %	✓	
		204-371-1	120-12-7									
26	fluoranthene				0.8	mg/kg		0.704	mg/kg	0.0000704 %	✓	
		205-912-4	206-44-0									
27	pyrene				2.41	mg/kg		2.121	mg/kg	0.000212 %	✓	
		204-927-3	129-00-0									
28	benzo[a]anthracene				0.47	mg/kg		0.414	mg/kg	0.0000414 %	✓	
	601-033-00-9	200-280-6	56-55-3									
29	chrysene				0.27	mg/kg		0.238	mg/kg	0.0000238 %	✓	
	601-048-00-0	205-923-4	218-01-9									
30	benzo[b]fluoranthene				0.24	mg/kg		0.211	mg/kg	0.0000211 %	✓	
	601-034-00-4	205-911-9	205-99-2									
31	benzo[k]fluoranthene				0.09	mg/kg		0.0792	mg/kg	0.00000792 %	✓	
	601-036-00-5	205-916-6	207-08-9									
32	benzo[a]pyrene; benzo[def]chrysene				0.35	mg/kg		0.308	mg/kg	0.0000308 %	✓	
	601-032-00-3	200-028-5	50-32-8									
33	indeno[123-cd]pyrene				0.17	mg/kg		0.15	mg/kg	0.000015 %	✓	
		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				0.67	mg/kg		0.59	mg/kg	0.000059 %	✓	
		205-883-8	191-24-2									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
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	61.899 mg/kg	0.00619 %	✓	
		215-127-9	1304-28-5							
38	coronene				0.24 mg/kg		0.211 mg/kg	0.0000211 %	✓	
		205-881-7	191-07-1							
39	benzo[<i>jj</i>]fluoranthene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-035-00-X	205-910-3	205-82-3							
Total:								0.52 %		

Key

- User supplied data
- Determinand values ignored for classification, see column 'Conc. Not Used' for reason
- Hazardous result
- 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
- 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. 2; H225 "Highly flammable liquid and vapour."

Because of determinands:


tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane: (conc.: 1.58e-06%)
benzene: (conc.: 1.06e-06%)
ethylbenzene: (conc.: 1.23e-06%)

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinands:

TPH (C6 to C40) petroleum group: (conc.: 0.472%)
xylene: (conc.: 2.82e-06%)

Classification of sample: TP-20-21/01/2019-0.50m


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

Sample details

Sample Name:	LoW Code:	
TP-20-21/01/2019-0.50m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
20% (wet weight correction)		

Hazard properties

None identified





Determinands

Moisture content: 20% 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	2.873 mg/kg	0.000287 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				17.4 mg/kg	1.32	18.379 mg/kg	0.00184 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				5.4 mg/kg	1.142	4.935 mg/kg	0.000493 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				76.6 mg/kg	1.462	89.564 mg/kg	0.00896 %	✓	
		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 }				140 mg/kg	1.126	126.099 mg/kg	0.0126 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	72 mg/kg	1.56	89.845 mg/kg	0.00576 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.2 mg/kg	1.353	0.217 mg/kg	0.0000217 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	molybdenum { molybdenum(VI) oxide }				6 mg/kg	1.5	7.201 mg/kg	0.00072 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				49.9 mg/kg	2.976	118.812 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 }				2 mg/kg	2.554	4.086 mg/kg	0.000409 %	✓	
	034-002-00-8									
12	zinc { zinc chromate }				181 mg/kg	2.774	401.696 mg/kg	0.0402 %	✓	
	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				8.38 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				0.08 mg/kg		0.064 mg/kg	0.0000064 %	✓	
		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				0.14 mg/kg		0.112 mg/kg	0.0000112 %	✓	
		205-912-4	206-44-0							
27	pyrene				0.14 mg/kg		0.112 mg/kg	0.0000112 %	✓	
		204-927-3	129-00-0							
28	benzo[a]anthracene				0.13 mg/kg		0.104 mg/kg	0.0000104 %	✓	
	601-033-00-9	200-280-6	56-55-3							
29	chrysene				0.1 mg/kg		0.08 mg/kg	0.000008 %	✓	
	601-048-00-0	205-923-4	218-01-9							
30	benzo[b]fluoranthene				0.14 mg/kg		0.112 mg/kg	0.0000112 %	✓	
	601-034-00-4	205-911-9	205-99-2							
31	benzo[k]fluoranthene				0.06 mg/kg		0.048 mg/kg	0.0000048 %	✓	
	601-036-00-5	205-916-6	207-08-9							
32	benzo[a]pyrene; benzo[def]chrysene				0.11 mg/kg		0.088 mg/kg	0.0000088 %	✓	
	601-032-00-3	200-028-5	50-32-8							
33	indeno[123-cd]pyrene				0.08 mg/kg		0.064 mg/kg	0.0000064 %	✓	
		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		0.064 mg/kg	0.0000064 %	✓	
		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 }				139 mg/kg	1.117	124.155 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:								0.101 %		

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
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: TP-20-21/01/2019-1.50m

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

Sample details

Sample Name: TP-20-21/01/2019-1.50m	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

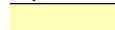



Determinands

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 }				1 mg/kg	1.197	1.056 mg/kg	0.000106 %	✓	
	051-005-00-X	215-175-0	1309-64-4							
2	arsenic { arsenic trioxide }				8 mg/kg	1.32	9.316 mg/kg	0.000932 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium oxide }				1.9 mg/kg	1.142	1.914 mg/kg	0.000191 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	chromium in chromium(III) compounds { chromium(III) oxide }				38.5 mg/kg	1.462	49.63 mg/kg	0.00496 %	✓	
		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	25.819 mg/kg	0.00258 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	15 mg/kg	1.56	20.636 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 }				3.5 mg/kg	1.5	4.631 mg/kg	0.000463 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
10	nickel { nickel chromate }				32.9 mg/kg	2.976	86.365 mg/kg	0.00864 %	✓	
	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 }				80 mg/kg	2.774	195.744 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	<0.000005 %		<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 }				96 mg/kg	1.117	94.537 mg/kg	0.00945 %	✓	
		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
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: 2019.38.3777.7713 (07 Feb 2019)

HazWasteOnline Database: 2019.38.3777.7713 (07 Feb 2019)

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 11 – WAC Data

WAC Data - Cornels Court, January 2019

Sample ID	WS04	WS04	WS04	WS07	WS07	WS07	WS08	WS08	WS10	WS10	Inert	Stable Non-reactive	Hazardous	LOD LOR	Units
Sample Depth (m)	1.00-2.00	2.00-3.00	3.00-4.00	1.00-2.00	2.00-3.00	3.00-4.00	1.00-2.00	2.00-3.00	2.00-3.00	3.00-4.00					
Total Organic Carbon *	0.34	0.26	0.14	0.38	0.26	0.19	0.25	0.29	0.34	0.26	3	5	6	<0.02	%
Sum of BTEX	<0.025	<0.025	0.034	<0.025	0.541	0.337	<0.025	0.258	<0.025	<0.025	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	<0.035	<0.035	1	-	-	<0.035	mg/kg
Mineral Oil	673	<30	<30	<30	143	<30	<30	447	<30	100	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	<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	<0.64	<0.64	100	-	-	<0.64	mg/kg
Arsenic	<0.025	<0.025	0.042	<0.025	0.029	<0.025	<0.025	<0.025	<0.025	<0.025	0.5	2	25	<0.025	mg/kg
Barium	0.12	0.33	<0.03	0.04	0.46	0.11	<0.03	0.27	0.41	0.46	20	100	300	<0.03	mg/kg
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
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
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
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
Molybdenum	0.08	0.12	<0.02	0.08	0.13	0.11	0.08	0.17	0.13	0.13	0.5	10	30	<0.02	mg/kg
Nickel	0.03	<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
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
Antimony	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	0.06	0.7	5	<0.02	mg/kg
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
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
Total Dissolved Solids**	1230	2209	1479	1830	1550	1530	920	1060	1070	2221	4000	60000	100000	<350	mg/kg
Dissolved Organic Carbon	20	<20	<20	<20	30	<20	<20	<20	<20	<20	500	800	1000	<20	mg/kg
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
Sulphate as SO4**	13	<5	<5	18	10	10	<5	37	78	41	1000	20000	50000	<0.5	mg/kg
Chloride**	8	9	5	<3	22	8	<3	46	39	29	800	15000	25000	<3	mg/kg
Asbestos	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	-	-	-	<0.001	%
Asbestos Type	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	-	-	-	-	%

NAD- no asbestos detected

* In the case of soils, a higher limit value maybe admitted by the competent authority, provided the DOC value of 500 mg/kg is achieved at L/S = 10 l/kg, either at the soil's own pH or at a pH value between 7,5 and 8,0.

** The values for total dissolved solids (TDS) can be used alternatively to the values for sulphate and chloride

WAC Data - Cornels Court, January 2019

Sample ID	TP-01	TP-02	TP-03	TP-04	TP-05	TP-06	TP-06	TP-07	TP-07	TP-07	Inert	Stable Non-reactive	Hazardous	LOD LOR	Units
Sample Depth (m)	0.50	0.60	0.50	1.00	0.80	0.50	1.50	0.50	1.50	2.50					
Total Organic Carbon *	0.70	0.36	1.58	0.34	1.66	0.28	0.34	0.43	0.27	0.18	3	5	6	<0.02	%
Sum of BTEX	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	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	<0.035	<0.035	1	-	-	<0.035	mg/kg
Mineral Oil	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	500	-	-	<30	mg/kg
PAH Sum of 6	<0.22	<0.22	0.27	<0.22	0.43	<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	0.76	<0.64	<0.64	<0.64	<0.64	<0.64	100	-	-	<0.64	mg/kg
Arsenic	<0.025	<0.025	<0.025	<0.025	0.032	<0.025	<0.025	<0.025	<0.025	<0.025	0.5	2	25	<0.025	mg/kg
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
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
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
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
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
Molybdenum	0.06	0.07	0.03	0.04	0.05	0.05	0.06	0.04	0.05	0.06	0.5	10	30	<0.02	mg/kg
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
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
Antimony	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	0.06	0.7	5	<0.02	mg/kg
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
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
Total Dissolved Solids**	690	1130	1720	1150	740	930	820	600	540	590	4000	60000	100000	<350	mg/kg
Dissolved Organic Carbon	<20	<20	20	<20	60	<20	<20	<20	<20	<20	500	800	1000	<20	mg/kg
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
Sulphate as SO4**	64	6	<5	<5	<5	48	36	7	11	8	1000	20000	50000	<0.5	mg/kg
Chloride**	9	9	4	4	6	9	8	3	<3	<3	800	15000	25000	<3	mg/kg
Asbestos	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	-	-	-	<0.001	%
Asbestos Type	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	-	-	-	-	%

NAD- no asbestos detected

* In the case of soils, a higher limit value maybe admitted by the competent authority, provided the DOC value of 500 mg/kg is achieved at L/S = 10 l/kg, either at the soil's own pH or at a pH value between 7,5 and 8,0.

** The values for total dissolved solids (TDS) can be used alternatively to the values for sulphate and chloride

WAC Data - Cornels Court, January 2019

Sample ID	TP-07A	TP-07A	TP-08	TP-08	TP-09	TP-09	TP - 11	TP - 11	TP - 11	TP - 12	Inert	Stable Non-reactive	Hazardous	LOD LOR	Units
Sample Depth (m)	0.50	1.50	0.50	1.50	0.50	1.50	1.00	2.00	3.00	0.50					
Total Organic Carbon *	0.67	0.64	0.85	0.69	4.57	0.33	0.22	0.35	0.27	1.01	3	5	6	<0.02	%
Sum of BTEX	<0.025	<0.025	<0.025	<0.025	<0.025 ^{sv}	<0.025	<0.025	<0.025	<0.025	<0.025	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	<0.035	<0.035	1	-	-	<0.035	mg/kg
Mineral Oil	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	500	-	-	<30	mg/kg
PAH Sum of 6	<0.22	<0.22	<0.22	<0.22	0.42	<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	0.76	<0.64	<0.64	<0.64	<0.64	<0.64	100	-	-	<0.64	mg/kg
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
Barium	0.04	0.04	<0.03	<0.03	0.03	<0.03	<0.03	0.05	<0.03	<0.03	20	100	300	<0.03	mg/kg
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
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
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
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
Molybdenum	0.02	0.05	0.03	0.05	0.03	0.05	0.07	0.17	0.05	0.04	0.5	10	30	<0.02	mg/kg
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
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
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
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
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
Total Dissolved Solids**	1310	1590	410	<350	780	1420	1649	1889	1300	2829	4000	60000	100000	<350	mg/kg
Dissolved Organic Carbon	<20	<20	<20	<20	40	<20	<20	<20	<20	<20	500	800	1000	<20	mg/kg
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
Sulphate as SO4**	<5	17	<5	<5	<5	<5	<5	<5	<5	<5	1000	20000	50000	<0.5	mg/kg
Chloride**	15	4	<3	<3	<3	7	4	<3	<3	<3	800	15000	25000	<3	mg/kg
Asbestos	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	-	-	-	<0.001	%
Asbestos Type	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	-	-	-	-	%

NAD- no asbestos detected

* In the case of soils, a higher limit value maybe admitted by the competent authority, provided the DOC value of 500 mg/kg is achieved at L/S = 10 l/kg, either at the soil's own pH or at a pH value between 7,5 and 8,0.

** The values for total dissolved solids (TDS) can be used alternatively to the values for sulphate and chloride

WAC Data - Cornels Court, January 2019

Sample ID	TP - 12	TP - 12	TP - 13	TP - 13	TP - 13	TP-14	TP-14	TP-14	TP - 16	TP - 16	Inert	Stable Non-reactive	Hazardous	LOD LOR	Units
Sample Depth (m)	1.50	2.50	0.50	1.50	2.50	1.00	2.00	3.00	0.50	1.50					
Total Organic Carbon *	0.29	0.15	1.18	0.34	0.49	1.04	0.72	0.63	0.95	0.29	3	5	6	<0.02	%
Sum of BTEX	<0.025	<0.025	<0.025	<0.025	<0.025	0.058 ^{sv}	0.476 ^{sv}	0.058 ^{sv}	<0.025	<0.025	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	<0.035	<0.035	1	-	-	<0.035	mg/kg
Mineral Oil	<30	<30	<30	<30	<30	3329	3848	3465	<30	<30	500	-	-	<30	mg/kg
PAH Sum of 6	<0.22	<0.22	<0.22	<0.22	<0.22	4.35	3.03	2.32	<0.22	<0.22	-	-	-	<0.22	mg/kg
PAH Sum of 17	<0.64	<0.64	<0.64	<0.64	<0.64	11.37	12.10	8.35	<0.64	<0.64	100	-	-	<0.64	mg/kg
Arsenic	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.027	<0.025	<0.025	0.5	2	25	<0.025	mg/kg
Barium	<0.03	0.04	<0.03	<0.03	<0.03	0.18	0.34	0.16	<0.03	<0.03	20	100	300	<0.03	mg/kg
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
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
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
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
Molybdenum	0.07	0.07	0.03	0.04	0.07	0.09	0.09	0.16	<0.02	0.05	0.5	10	30	<0.02	mg/kg
Nickel	<0.02	<0.02	<0.02	<0.02	<0.02	0.06	0.08	0.08	<0.02	<0.02	0.4	10	40	<0.02	mg/kg
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
Antimony	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	0.04	<0.02	<0.02	0.06	0.7	5	<0.02	mg/kg
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
Zinc	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	0.05	<0.03	<0.03	4	50	200	<0.03	mg/kg
Total Dissolved Solids**	1150	1020	1840	1599	940	1070	800	650	780	1680	4000	60000	100000	<350	mg/kg
Dissolved Organic Carbon	<20	<20	<20	<20	<20	60	30	30	20	<20	500	800	1000	<20	mg/kg
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
Sulphate as SO4**	<5	6	<5	<5	<5	<5	<5	6	<5	<5	1000	20000	50000	<0.5	mg/kg
Chloride**	<3	<3	<3	<3	<3	6	7	10	3	4	800	15000	25000	<3	mg/kg
Asbestos	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	-	-	-	<0.001	%
Asbestos Type	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	-	-	-	-	%

NAD- no asbestos detected

* In the case of soils, a higher limit value maybe admitted by the competent authority, provided the DOC value of 500 mg/kg is achieved at L/S = 10 l/kg, either at the soil's own pH or at a pH value between 7,5 and 8,0.

** The values for total dissolved solids (TDS) can be used alternatively to the values for sulphate and chloride

WAC Data - Cornels Court, January 2019

Sample ID	TP - 16	TP - 17	TP - 17	TP - 17	TP-20	TP-20	TP - 21	TP - 21	TP - 21
Sample Depth (m)	2.50	0.50	1.50	2.50	0.50	1.50	0.50	1.50	2.50
Total Organic Carbon *	0.28	1.00	0.30	0.33	2.44	0.24	1.40	0.36	0.36
Sum of BTEX	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Sum of 7 PCBs	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035
Mineral Oil	<30	<30	<30	<30	<30	<30	<30	<30	<30
PAH Sum of 6	<0.22	<0.22	<0.22	<0.22	0.61	<0.22	<0.22	<0.22	<0.22
PAH Sum of 17	<0.64	<0.64	<0.64	<0.64	1.06	<0.64	<0.64	<0.64	<0.64
Arsenic	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Barium	<0.03	<0.03	<0.03	<0.03	0.04	0.05	<0.03	0.04	<0.03
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
Copper	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Mercury	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Molybdenum	0.07	0.02	0.08	0.14	0.03	0.05	<0.02	0.06	0.07
Nickel	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Antimony	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Selenium	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Zinc	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Total Dissolved Solids**	<350	<350	<350	770	<350	670	1740	650	<350
Dissolved Organic Carbon	<20	<20	<20	<20	30	<20	20	<20	<20
Phenol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sulphate as SO4**	6	13	13	13	6	19	13	14	21
Chloride**	7	9	8	69	<3	3	9	9	8
Asbestos	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD
Asbestos Type	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD

NAD- no asbestos detected

* In the case of soils, a higher limit value maybe admitted by the competent authority, provided the DOC value of 500 mg/kg is achieved at L/S = 10 l/kg, either at the soil's own pH or at a pH value between 7,5 and 8,0.

** The values for total dissolved solids (TDS) can be used alternatively to the values for sulphate and chloride

Inert	Stable Non-reactive	Hazardous	LOD LOR	Units
3	5	6	<0.02	%
6	-	-	<0.025	mg/kg
1	-	-	<0.035	mg/kg
500	-	-	<30	mg/kg
-	-	-	<0.22	mg/kg
100	-	-	<0.64	mg/kg
0.5	2	25	<0.025	mg/kg
20	100	300	<0.03	mg/kg
0.04	1	5	<0.005	mg/kg
0.5	10	70	<0.015	mg/kg
2	50	100	<0.07	mg/kg
0.01	0.2	2	<0.0001	mg/kg
0.5	10	30	<0.02	mg/kg
0.4	10	40	<0.02	mg/kg
0.5	10	50	<0.05	mg/kg
0.06	0.7	5	<0.02	mg/kg
0.1	0.5	7	<0.03	mg/kg
4	50	200	<0.03	mg/kg
4000	60000	100000	<350	mg/kg
500	800	1000	<20	mg/kg
1	-	-	<0.1	mg/kg
1000	20000	50000	<0.5	mg/kg
800	15000	25000	<3	mg/kg
-	-	-	<0.001	%
-	-	-	-	%

APPENDIX 12 – Whole Waste Classification Analysis

Whole Waste Classification: Cornelscourt, Dublin

Rank (r)	r-1	CumB	TOC
1	0	0.0000	0.14
2	1	0.0000	0.15
3	2	0.0000	0.18
4	3	0.0000	0.19
5	4	0.0000	0.22
6	5	0.0000	0.24
7	6	0.0000	0.25
8	7	0.0000	0.26
9	8	0.0000	0.26
10	9	0.0000	0.26
11	10	0.0000	0.27
12	11	0.0001	0.27
13	12	0.0002	0.28
14	13	0.0007	0.28
15	14	0.0019	0.29
16	15	0.0047	0.29
17	16	0.0106	0.29
18	17	0.0222	0.30
19	18	0.0427	0.33
20	19	0.0762	0.33
21	20	0.1264	0.34
22	21	0.1958	0.34
23	22	0.2841	0.34
24	23	0.3877	0.34
25	24	0.5000	0.34
26	25	0.6123	0.35
27	26	0.7159	0.36
28	27	0.8042	0.36
29	28	0.8736	0.36
30	29	0.9238	0.38
Minimum number of samples which must pass the test limit WAC limit) and			
31	30	0.9573	0.43
32	31	0.9778	0.49
33	32	0.9894	0.63
34	33	0.9953	0.64
35	34	0.9981	0.67
36	35	0.9993	0.69
37	36	0.9998	0.70
38	37	0.9999	0.72
39	38	1.0000	0.85
40	39	1.0000	0.95
41	40	1.0000	1.00
42	41	1.0000	1.01
43	42	1.0000	1.04
44	43	1.0000	1.18
45	44	1.0000	1.40
46	45	1.0000	1.58
47	46	1.0000	1.66
48	47	1.0000	2.44
49	48	1.0000	4.57

where CumB <0.5

where CumB >0.9

Average (mean) concentration	0.64
Average (mean) concentration Pass/Fail	Pass
Inert WAC	3
Max Allowable Failures of Inert WAC	19
No of Samples Above Inert WAC	1
No of Samples Above Inert WAC (Pass/Fail)	Pass
X50	25
X50 Level (median Concentration)	0.34

APPENDIX 13 – Suitable 4 Use Data

S4UL - Metals (Residential), Cornelscourt, Dublin, January 2019

Sample ID	WS04	WS04	WS04	WS07	WS07	WS07	WS08	WS08	WS10	WS10	Max Level Detected	Units	Residential with homegrown produce	Residential without homegrown produce
Sample Depth (m)	1.00-2.00	2.00-3.00	3.00-4.00	1.00-2.00	2.00-3.00	3.00-4.00	1.00-2.00	2.00-3.00	2.00-3.00	3.00-4.00				
Antimony	2	2	<1	2	2	1	2	2	2	2	2	mg/kg	ne	ne
Arsenic	9.8	12.1	3.8	11.3	8.4	7.8	10	9.8	12.1	10.1	12.1	mg/kg	37	40
Barium	74	74	34	67	61	48	51	70	74	66	74	mg/kg	ne	ne
Cadmium	1.6	1.7	0.1	2.1	1.7	1.3	1.8	1.6	2.1	1.9	2.1	mg/kg	11	85
Chromium	64.5	44.3	72	48	54.9	67.5	52.9	59.8	50.8	51.2	72	mg/kg	910	910
Copper	29	29	6	35	28	17	21	27	37	29	37	mg/kg	2,400	7,100
Lead	16	20	6	18	16	12	14	18	21	21	21	mg/kg	ne	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	1.2
Molybdenum	3.7	3.6	4.1	4	3.2	3.1	3.3	3.6	4.8	4.2	4.8	mg/kg	ne	ne
Nickel	36	36.4	7.2	43.2	34.8	27.6	26.4	33.4	47.8	37.7	47.8	mg/kg	130	180
Selenium	<1	1	<1	2	<1	<1	<1	<1	1	1	2	mg/kg	250	430
Zinc	77	103	37	106	76	66	76	80	104	83	106	mg/kg	3,700	40,000
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*	6*

S4UL - Metals (Residential), Cornelscourt, Dublin, January 2019

Sample ID	TP-01	TP-02	TP-03	TP-04	TP-05	TP-06	TP-06	TP-07	TP-07	TP-07	Max Level Detected	Units	Residential with homegrown produce	Residential without homegrown produce
Sample Depth (m)	0.5	0.6	0.5	1	0.8	0.5	1.5	0.5	1.5	2.5				
Antimony	2	2	3	2	2	2	2	1	2	1	3	mg/kg	ne	ne
Arsenic	16.1	10.9	16.3	10.1	15.4	7.7	11.3	7.6	7.8	7.7	16.3	mg/kg	37	40
Barium	143	73	165	63	121	87	81	36	62	65	165	mg/kg	ne	ne
Cadmium	2.6	1.9	2.7	1.8	2.9	1.7	2.1	1.8	1.8	1.4	2.9	mg/kg	11	85
Chromium	88.9	42.7	73.1	54.8	76.8	77.4	50	40.1	54.6	47.5	88.9	mg/kg	910	910
Copper	27	27	35	27	33	18	32	26	23	21	35	mg/kg	2,400	7,100
Lead	24	17	70	18	142	12	16	11	14	12	142	mg/kg	ne	ne
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	1.2	1.2
Molybdenum	3.6	3.2	5.5	4.2	5.7	3.3	3.5	3.4	3.4	2.8	5.7	mg/kg	ne	ne
Nickel	48.1	40	53.5	35.7	51.6	31.6	44.4	21.2	29.7	29.2	53.5	mg/kg	130	180
Selenium	2	1	2	1	2	<1	<1	<1	1	<1	2	mg/kg	250	430
Zinc	107	88	138	101	144	61	96	66	80	67	144	mg/kg	3,700	40,000
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*	6*

S4UL - Metals (Residential), Cornelscourt, Dublin, January 2019

Sample ID	TP-07A	TP-07A	TP-08	TP-08	TP-09	TP-09	TP - 11	TP - 11	TP - 11	TP - 12	Max Level Detected	Units	Residential with homegrown produce	Residential without homegrown produce
Sample Depth (m)	0.5	1.5	0.5	1.5	0.5	1.5	1	2	3	0.5				
Antimony	3	2	3	2	3	2	<1	2	1	2	3	mg/kg	ne	ne
Arsenic	15.8	12.2	17.8	14.6	18.6	10.4	8	9.8	8.8	13.2	18.6	mg/kg	37	40
Barium	147	255	139	99	125	69	52	73	60	91	255	mg/kg	ne	ne
Cadmium	3	3.5	3	2.6	2.5	1.9	2.1	2	1.6	2.2	3.5	mg/kg	11	85
Chromium	66.8	59.7	67.6	70	79.6	54.6	40.4	37.1	47.8	69	79.6	mg/kg	910	910
Copper	31	37	42	40	44	32	18	33	28	34	44	mg/kg	2,400	7,100
Lead	26	25	35	26	84	17	12	16	15	31	84	mg/kg	ne	ne
Mercury	<0.1	<0.1	0.3	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	mg/kg	1.2	1.2
Molybdenum	5.6	6.2	5.8	4.8	4.9	3.8	3.6	3.9	4.1	5.4	6.2	mg/kg	ne	ne
Nickel	54.4	61	66.7	54.4	47.3	42.4	25	40.5	34.4	45	66.7	mg/kg	130	180
Selenium	2	3	2	1	2	1	<1	1	1	1	3	mg/kg	250	430
Zinc	134	107	143	116	139	91	77	92	76	110	143	mg/kg	3,700	40,000
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*	6*

S4UL - Metals (Residential), Cornelscourt, Dublin, January 2019

Sample ID	TP - 12	TP - 12	TP - 13	TP - 13	TP - 13	TP-14	TP-14	TP-14	TP - 16	TP - 16	Max Level Detected	Units	Residential with homegrown produce	Residential without homegrown produce
Sample Depth (m)	1.5	2.5	0.5	1.5	2.5	1	2	3	0.5	1.5				
Antimony	2	2	2	3	2	2	1	2	1	2	3	mg/kg	ne	ne
Arsenic	10.1	10.8	8.6	20.8	10.7	11.8	7.2	9.2	7.3	9.7	20.8	mg/kg	37	40
Barium	69	61	154	63	92	75	51	63	132	70	154	mg/kg	ne	ne
Cadmium	1.8	1.2	2.1	3	2.3	2.2	1.7	1.9	1.1	1.9	3	mg/kg	11	85
Chromium	41.8	65.3	66.2	45.3	46.8	60.1	45.7	54.7	88.6	55.1	88.6	mg/kg	910	910
Copper	28	14	40	38	33	41	26	23	31	31	41	mg/kg	2,400	7,100
Lead	16	15	28	20	21	157	65	24	18	16	157	mg/kg	ne	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	1.2
Molybdenum	3.8	3.7	3.2	4.3	4.5	3.6	2.8	2.8	2.3	3.5	4.5	mg/kg	ne	ne
Nickel	33.8	46.8	49.6	50.4	41.9	44	22.7	34.2	25.6	35.5	50.4	mg/kg	130	180
Selenium	1	1	1	2	2	1	1	<1	<1	1	2	mg/kg	250	430
Zinc	83	75	107	190	100	139	68	79	67	88	190	mg/kg	3,700	40,000
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*	6*

S4UL - Metals (Residential), Cornelscourt, Dublin, January 2019

Sample ID	TP - 16	TP - 17	TP - 17	TP - 17	TP-20	TP-20	TP - 21	TP - 21	TP - 21
Sample Depth (m)	2.5	0.5	1.5	2.5	0.5	1.5	0.5	1.5	2.5
Antimony	2	3	2	<1	3	1	2	2	2
Arsenic	10	16.2	12.1	5.6	17.4	8	8.5	10.7	11.4
Barium	72	96	70	65	139	96	129	86	92
Cadmium	2.3	3.1	2.1	1.1	5.4	1.9	1.3	2	2.3
Chromium	56.2	68	44.3	43.8	76.6	38.5	104.6	55.3	53.7
Copper	29	44	32	26	140	26	41	34	34
Lead	17	36	19	17	72	15	22	18	22
Mercury	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1
Molybdenum	3.8	6.7	4.9	2.5	6	3.5	2.9	4.4	4.5
Nickel	36.8	65.3	44.7	38.8	49.9	32.9	29.6	44	42.8
Selenium	1	2	1	<1	2	1	<1	1	2
Zinc	85	136	106	82	181	80	77	95	103
Hexavalent Chromium	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3

Max Level Detected	Units	Residential with homegrown produce	Residential without homegrown produce
3	mg/kg	ne	ne
17.4	mg/kg	37	40
139	mg/kg	ne	ne
5.4	mg/kg	11	85
104.6	mg/kg	910	910
140	mg/kg	2,400	7,100
72	mg/kg	ne	ne
0.2	mg/kg	1.2	1.2
6.7	mg/kg	ne	ne
65.3	mg/kg	130	180
2	mg/kg	250	430
181	mg/kg	3,700	40,000
0	mg/kg	6*	6*

S4UL - TPH (Residential), Cornelscourt, Dubin, January 2019

Commercial	TP-01	TP-02	TP-03	TP-04	TP-05	TP-06	TP-06	TP-07	TP-07	TP-07	Max Level Detected	Units	Residential with homegrown produce		
													1 % SOM	2.5 % SOM	6 % SOM
Aliphatics	0.50	0.60	0.50	1.00	0.80	0.50	1.50	0.50	1.50	2.50					
>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	1.50	<0.2	1.50	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 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	mg/kg	ne	ne	ne
Benzene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	mg/kg	87	170	370
Toluene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	mg/kg	130000	290000	660000
Ethylbenzene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	mg/kg	47000	110000	260000
m/p-Xylene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	mg/kg	56000	130000	310000
o-Xylene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	mg/kg	60000	140000	330000
TOC	0.70	0.36	1.58	0.34	1.66	0.28	0.34	0.43	0.27	0.18					
SOM (Note 1)	1.21	0.62	2.72	0.59	2.86	0.48	0.59	0.74	0.47	0.31		%			

Note 1 - TOC * 1.724

S4UL - TPH (Residential), Cornelscourt, Dubin, January 2019

Commercial	TP-07A	TP-07A	TP-08	TP-08	TP-09	TP-09	TP - 11	TP - 11	TP - 11	TP - 12	Max Level Detected	Units	Residential with homegrown produce		
	0.50	1.50	0.50	1.50	0.50	1.50	1.00	2.00	3.00	0.50			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	<0.1SV	<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 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	mg/kg	ne	ne	ne
Benzene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	mg/kg	87	170	370
Toluene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	mg/kg	130000	290000	660000
Ethylbenzene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	mg/kg	47000	110000	260000
m/p-Xylene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	mg/kg	56000	130000	310000
o-Xylene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	4.57	mg/kg	60000	140000	330000
TOC	0.67	0.64	0.85	0.69	4.57	0.33	0.22	0.35	0.27	1.01					
SOM (Note 1)	1.16	1.10	1.47	1.19	7.88	0.57	0.38	0.60	0.47	1.74		%			

Note 1 - TOC * 1.724

S4UL - TPH (Residential), Cornelscourt, Dubin, January 2019

Commercial	TP - 12	TP - 12	TP - 13	TP - 13	TP - 13	TP-14	TP-14	TP-14	TP - 16	TP - 16	Max Level Detected	Units	Residential with homegrown produce			
													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	0.30	0.20	<0.1	<0.1	0.30	mg/kg	100	230	530	
>C8-C10	<0.1	<0.1	<0.1	<0.1	<0.1	0.20	1.70	0.90	<0.1	<0.1	1.70	mg/kg	27	65	150	
>C10-C12 #	<0.2	<0.2	<0.2	<0.2	<0.2	17.20	16.70	8.30	<0.2	<0.2	17.20	mg/kg	130	330	760	
>C12-C16 #	<4	<4	<4	<4	<4	12.00	12.00	<4	<4	<4	12.00	mg/kg	1,100	2,400	4,300	
>C16-C21 #	<7	<7	<7	<7	<7	66.00	81.00	66.00	<7	<7	81.00	mg/kg	ne	ne	ne	
>C21-C35 #	<7	<7	<7	<7	<7	2821.00	3251.00	2906.00	<7	<7	3251.00	mg/kg	ne	ne	ne	
>C16-C35 #	<14	<14	<14	<14	<14	5642.00	6502.00	5812.00	<14	<14	6502.00	mg/kg	65000	92000	110000	
>C35-C40	<7	<7	<7	<7	<7	413.00	487.00	485.00	<7	<7	487.00	mg/kg	ne	ne	ne	
Total aliphatics C5-40	<26	<26	<26	<26	<26	3329.00	3850.00	3466.00	<26	<26	3850.00	mg/kg	ne	ne	ne	
>C6-C10	<0.1	<0.1	<0.1	<0.1	<0.1	0.20	2.00	1.10	<0.1	<0.1	2.00	mg/kg	ne	ne	ne	
>C10-C25	<10	<10	<10	<10	<10	530.00	644.00	567.00	<10	<10	644.00	mg/kg	ne	ne	ne	
>C25-C35	<10	<10	<10	<10	<10	2358.00	2658.00	2444.00	<10	<10	2658.00	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	0.40	<0.1	<0.1	<0.1	0.40	mg/kg	34	83	190	
>EC10-EC12 #	<0.2	<0.2	<0.2	<0.2	<0.2	31.40	49.60	28.50	<0.2	<0.2	49.60	mg/kg	74	180	380	
>EC12-EC16 #	<4	<4	<4	<4	<4	36.00	57.00	36.00	<4	<4	57.00	mg/kg	140	330	660	
>EC16-EC21 #	<7	<7	<7	<7	<7	129.00	145.00	133.00	<7	<7	145.00	mg/kg	260	540	930	
>EC21-EC35 #	<7	<7	<7	<7	<7	1585.00	1426.00	1413.00	<7	<7	1585.00	mg/kg	1,100	1,500	1,700	
>EC35-EC40	<7	<7	<7	<7	<7	291.00	268.00	281.00	<7	<7	291.00	mg/kg	ne	ne	ne	
Total aromatics C5-40	<26	<26	<26	<26	<26	2072.00	1946.00	1892.00	<26	<26	2072.00	mg/kg	ne	ne	ne	
Total aliphatics and aromatics(C5-40)	<52	<52	<52	<52	<52	5401.00	5796.00	5358.00	<52	<52	5796.00	mg/kg	ne	ne	ne	
>EC6-EC10 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.40	<0.1	<0.1	<0.1	0.40	mg/kg	ne	ne	ne	
>EC10-EC25	<10	<10	<10	<10	<10	463.00	458.00	416.00	<10	<10	463.00	mg/kg	ne	ne	ne	
>EC25-EC35	<10	<10	<10	<10	<10	1315.00	1142.00	1162.00	<10	<10	1315.00	mg/kg	ne	ne	ne	
BTEX																
MTBE #	<5	<5	<5	<5	<5	<5	21.00	18.00	<5	<5	21.00	mg/kg	ne	ne	ne	
Benzene #	<5	<5	<5	<5	<5	<5	22.00	12.00	<5	<5	22.00	mg/kg	87	170	370	
Toluene #	<5	<5	<5	<5	<5	<5	7.00	<5	<5	<5	7.00	mg/kg	130000	290000	660000	
Ethylbenzene #	<5	<5	<5	<5	<5	13.00	100.00	14.00	<5	<5	100.00	mg/kg	47000	110000	260000	
m/p-Xylene #	<5	<5	<5	<5	<5	15.00	240.00	32.00	<5	<5	240.00	mg/kg	56000	130000	310000	
o-Xylene #	<5	<5	<5	<5	<5	30.00	107.00	<5	<5	<5	107.00	mg/kg	60000	140000	330000	
TOC	0.29	0.15	1.18	0.34	0.49	1.04	0.72	0.63	0.95	0.29						
SOM (Note 1)	0.50	0.26	2.03	0.59	0.84	1.79	1.24	1.09	1.64	0.50		%				

Note 1 - TOC * 1.724

S4UL - TPH (Residential), Cornelscourt, Dubin, January 2019

Commercial	TP - 16	TP - 17	TP - 17	TP - 17	TP-20	TP-20	TP - 21	TP - 21	TP - 21	WS01	Max Level Detected	Units	Residential with homegrown produce			
													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	1.80	<0.2	<0.2	<0.2	<0.2	<0.2	1.80	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 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	ug/kg	ne	ne	ne	
Benzene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	ug/kg	87	170	370	
Toluene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	ug/kg	130000	290000	660000	
Ethylbenzene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	ug/kg	47000	110000	260000	
m/p-Xylene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	ug/kg	56000	130000	310000	
o-Xylene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	ug/kg	60000	140000	330000	
TOC	0.28	1.00	0.30	0.33	2.44	0.24	1.40	0.36	0.36	-						
SOM (Note 1)	0.48	1.72	0.52	0.57	4.21	0.41	2.41	0.62	0.62	-		%				

Note 1 - TOC * 1.724

S4UL - TPH (Residential), Cornelscourt, Dubin, January 2019

Commercial	WS01	WS01	WS02	WS02	WS02	WS03	WS03	WS03	WS04	WS04	Max Level Detected	Units	Residential with homegrown produce		
	1.00-2.00	2.00-3.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00	1.00-2.00			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	73.20	73.20	mg/kg	130	330	760
>C12-C16 #	<4	<4	21.00	<4	<4	<4	<4	<4	<4	221.00	221.00	mg/kg	1,100	2,400	4,300
>C16-C21 #	<7	<7	60.00	<7	<7	<7	<7	<7	<7	265.00	265.00	mg/kg	ne	ne	ne
>C21-C35 #	<7	<7	419.00	<7	<7	<7	<7	<7	<7	114.00	419.00	mg/kg	ne	ne	ne
>C16-C35 #	<14	<14	479.00	<14	<14	<14	<14	<14	<14	379.00	479.00	mg/kg	65000	92000	110000
>C35-C40	<7	<7	127.00	<7	<7	<7	<7	<7	<7	<7	127.00	mg/kg	ne	ne	ne
Total aliphatics C5-40	<26	<26	627.00	<26	<26	<26	<26	<26	<26	673.00	673.00	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	172.00	<10	<10	<10	<10	<10	<10	673.00	673.00	mg/kg	ne	ne	ne
>C25-C35	<10	<10	334.00	<10	<10	<10	<10	<10	<10	16.00	334.00	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	8.20	8.20	mg/kg	74	180	380
>EC12-EC16 #	<4	<4	<4	<4	<4	<4	<4	<4	<4	92.00	92.00	mg/kg	140	330	660
>EC16-EC21 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	164.00	164.00	mg/kg	260	540	930
>EC21-EC35 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	74.00	74.00	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	338.00	338.00	mg/kg	ne	ne	ne
Total aliphatics and aromatics(C5-40)	<52	<52	627.00	<52	<52	<52	<52	<52	<52	1011.00	1011.00	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	343.00	343.00	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 #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	ug/kg	ne	ne	ne
Benzene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	ug/kg	87	170	370
Toluene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	ug/kg	130000	290000	660000
Ethylbenzene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	ug/kg	47000	110000	260000
m/p-Xylene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	ug/kg	56000	130000	310000
o-Xylene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	ug/kg	60000	140000	330000
TOC	-	-	-	-	-	-	-	-	-	-	0.34				
SOM (Note 1)											0.59	%			

Note 1 - TOC * 1.724

S4UL - TPH (Residential), Cornelscourt, Dubin, January 2019

Commercial	WS04	WS04	WS05	WS05	WS05	WS06	WS06	WS06	WS07	WS07	Max Level Detected	Units	Residential with homegrown produce		
	2.00-3.00	3.00-4.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00	1.00-2.00			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	0.80	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.80	mg/kg	100	230	530
>C8-C10	<0.1	0.20	<0.1	<0.1	<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	12.00	<4	<4	<4	<4	<4	<4	<4	<4	12.00	mg/kg	1,100	2,400	4,300
>C16-C21 #	<7	10.00	<7	<7	<7	<7	<7	<7	<7	<7	10.00	mg/kg	ne	ne	ne
>C21-C35 #	<7	<7	<7	<7	<7	<7	<7	109.00	60.00	<7	109.00	mg/kg	ne	ne	ne
>C16-C35 #	<14	<14	<14	<14	<14	<14	<14	109.00	60.00	<14	109.00	mg/kg	65000	92000	110000
>C35-C40	<7	<7	<7	<7	<7	<7	<7	13.00	<7	<7	13.00	mg/kg	ne	ne	ne
Total aliphatics C5-40	<26	<26	<26	<26	<26	<26	<26	122.00	60.00	<26	122.00	mg/kg	ne	ne	ne
>C6-C10	<0.1	1.00	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.00	mg/kg	ne	ne	ne
>C10-C25	<10	25.00	<10	<10	<10	<10	<10	29.00	<10	<10	29.00	mg/kg	ne	ne	ne
>C25-C35	<10	<10	<10	<10	<10	<10	<10	86.00	54.00	<10	86.00	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	78.00	<7	78.00	mg/kg	1,100	1,500	1,700
>EC35-EC40	<7	<7	<7	<7	<7	<7	<7	<7	16.00	<7	16.00	mg/kg	ne	ne	ne
Total aromatics C5-40	<26	<26	<26	<26	<26	<26	<26	<26	94.00	<26	94.00	mg/kg	ne	ne	ne
Total aliphatics and aromatics(C5-40)	<52	<52	<52	<52	<52	<52	<52	122.00	154.00	<52	154.00	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	71.00	<10	71.00	mg/kg	ne	ne	ne
BTEX															
MTBE #	15.00	79.00	<5	<5	<5	<5	<5	<5	<5	<5	79.00	ug/kg	ne	ne	ne
Benzene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	ug/kg	87	170	370
Toluene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	ug/kg	130000	290000	660000
Ethylbenzene #	<5	17.00	<5	<5	<5	<5	<5	<5	<5	<5	17.00	ug/kg	47000	110000	260000
m/p-Xylene #	<5	17.00	<5	<5	<5	<5	<5	<5	<5	<5	17.00	ug/kg	56000	130000	310000
o-Xylene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	ug/kg	60000	140000	330000
TOC	0.26	0.14	-	-	-	-	-	-	-	-	0.38				
SOM (Note 1)	0.45	0.24	-	-	-	-	-	-	-	-	0.66	%			

Note 1 - TOC * 1.724

S4UL - TPH (Residential), Cornelscourt, Dubin, January 2019

Commercial	WS07	WS07	WS08	WS08	WS08	WS09	WS09	WS09	WS10	WS10	Max Level Detected	Units	Residential with homegrown produce		
	2.00-3.00	3.00-4.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00	1.00-2.00			1 % SOM	2.5 % SOM	6 % SOM
Aliphatics															
>C5-C6 #	0.60	1.70	<0.1	<0.1	1.30	<0.1	<0.1	<0.1	<0.1	<0.1	1.70	mg/kg	42	78	160
>C6-C8 #	2.10	4.10	0.50	<0.1	6.50	<0.1	<0.1	<0.1	<0.1	<0.1	6.50	mg/kg	100	230	530
>C8-C10	2.40	2.90	0.40	<0.1	8.90	<0.1	<0.1	<0.1	<0.1	<0.1	8.90	mg/kg	27	65	150
>C10-C12 #	35.90	<0.2	<0.2	<0.2	89.00	<0.2	<0.2	<0.2	<0.2	<0.2	89.00	mg/kg	130	330	760
>C12-C16 #	49.00	<4	<4	<4	160.00	<4	<4	<4	<4	<4	160.00	mg/kg	1,100	2,400	4,300
>C16-C21 #	48.00	<7	<7	<7	152.00	<7	<7	<7	<7	<7	152.00	mg/kg	ne	ne	ne
>C21-C35 #	10.00	<7	<7	<7	46.00	<7	<7	<7	<7	<7	46.00	mg/kg	ne	ne	ne
>C16-C35 #	<14	<14	<14	<14	198.00	<14	<14	<14	<14	<14	198.00	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	148.00	<26	<26	<26	464.00	<26	<26	<26	<26	<26	464.00	mg/kg	ne	ne	ne
>C6-C10	4.50	7.00	0.90	<0.1	15.40	<0.1	<0.1	<0.1	<0.1	<0.1	15.40	mg/kg	ne	ne	ne
>C10-C25	160.00	<10	<10	<10	447.00	<10	<10	<10	<10	<10	447.00	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 #	0.60	0.30	<0.1	<0.1	0.20	<0.1	<0.1	<0.1	<0.1	<0.1	0.60	mg/kg	34	83	190
>EC10-EC12 #	17.00	<0.2	<0.2	<0.2	61.80	<0.2	<0.2	<0.2	<0.2	<0.2	61.80	mg/kg	74	180	380
>EC12-EC16 #	23.00	<4	<4	<4	98.00	<4	<4	<4	<4	<4	98.00	mg/kg	140	330	660
>EC16-EC21 #	22.00	<7	<7	<7	106.00	<7	<7	<7	<7	<7	106.00	mg/kg	260	540	930
>EC21-EC35 #	<7	<7	<7	<7	31.00	<7	<7	<7	<7	<7	31.00	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	63.00	<26	<26	<26	297.00	<26	<26	<26	<26	<26	297.00	mg/kg	ne	ne	ne
Total aliphatics and aromatics(C5-40)	211.00	<52	<52	<52	761.00	<52	<52	<52	<52	<52	761.00	mg/kg	ne	ne	ne
>EC6-EC10 #	0.60	0.30	<0.1	<0.1	0.20	<0.1	<0.1	<0.1	<0.1	<0.1	0.60	mg/kg	ne	ne	ne
>EC10-EC25	68.00	<10	<10	<10	280.00	<10	<10	<10	<10	<10	280.00	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 #	261.00	798.00	41.00	<5	755.00	<5	<5	<5	<5	<5	798.00	ug/kg	ne	ne	ne
Benzene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	ug/kg	87	170	370
Toluene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	ug/kg	130000	290000	660000
Ethylbenzene #	100.00	80.00	10.00	<5	49.00	<5	<5	<5	<5	<5	100.00	ug/kg	47000	110000	260000
m/p-Xylene #	441.00	257.00	21.00	8.00	209.00	<5	<5	<5	<5	<5	441.00	ug/kg	56000	130000	310000
o-Xylene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	ug/kg	60000	140000	330000
TOC	0.26	0.19	-	0.25	0.29	-	-	-	-	-					
SOM (Note 1)	0.45	0.33		0.43	0.50	-	-	-	-	-		%			

Note 1 - TOC * 1.724

S4UL - TPH (Residential), Cornelscourt, Dubin, January 2019

Commercial	WS10	WS10	WS11	WS11	WS11	WS12	WS12	WS12	WS13	WS13	Max Level Detected	Units	Residential with homegrown produce		
	2.00-3.00	3.00-4.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00	1.00-2.00	2.00-3.00	0.00-1.00	1.00-2.00			1 % SOM	2.5 % SOM	6 % SOM
Aliphatics															
>C5-C6 #	<0.1	<0.1	<0.1	10.40	13.90	<0.1	<0.1	<0.1	<0.1	<0.1	13.90	mg/kg	42	78	160
>C6-C8 #	<0.1	0.10	<0.1	33.40	63.50	<0.1	<0.1	<0.1	<0.1	<0.1	63.50	mg/kg	100	230	530
>C8-C10	0.50	<0.1	<0.1	34.10	59.80	<0.1	<0.1	<0.1	<0.1	<0.1	59.80	mg/kg	27	65	150
>C10-C12 #	<0.2	15.20	<0.2	203.90	349.00	<0.2	<0.2	<0.2	<0.2	<0.2	349.00	mg/kg	130	330	760
>C12-C16 #	<4	45.00	<4	365.00	613.00	<4	<4	<4	<4	<4	613.00	mg/kg	1,100	2,400	4,300
>C16-C21 #	<7	40.00	<7	364.00	642.00	<7	<7	<7	<7	<7	642.00	mg/kg	ne	ne	ne
>C21-C35 #	<7	<7	<7	115.00	220.00	<7	<7	<7	<7	<7	220.00	mg/kg	ne	ne	ne
>C16-C35 #	<14	<14	<14	479.00	862.00	<14	<14	<14	<14	<14	862.00	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	100.00	<26	1126.00	1961.00	<26	<26	<26	<26	<26	1961.00	mg/kg	ne	ne	ne
>C6-C10	0.50	0.10	<0.1	67.50	123.30	<0.1	<0.1	<0.1	<0.1	<0.1	123.30	mg/kg	ne	ne	ne
>C10-C25	<10	104.00	<10	1027.00	1758.00	<10	<10	<10	<10	<10	1758.00	mg/kg	ne	ne	ne
>C25-C35	<10	<10	<10	<10	21.00	<10	<10	<10	<10	<10	21.00	mg/kg	ne	ne	ne
Aromatics															
>C5-EC7 #	<0.1	<0.1	<0.1	0.20	0.30	<0.1	<0.1	<0.1	<0.1	<0.1	0.30	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	13.70	30.10	<0.1	<0.1	<0.1	<0.1	<0.1	30.10	mg/kg	34	83	190
>EC10-EC12 #	<0.2	4.20	<0.2	132.20	231.20	<0.2	<0.2	<0.2	<0.2	<0.2	231.20	mg/kg	74	180	380
>EC12-EC16 #	<4	26.00	<4	190.00	325.00	<4	<4	<4	<4	<4	325.00	mg/kg	140	330	660
>EC16-EC21 #	<7	39.00	<7	229.00	384.00	<7	<7	<7	<7	<7	384.00	mg/kg	260	540	930
>EC21-EC35 #	<7	11.00	<7	92.00	132.00	<7	<7	<7	<7	<7	132.00	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	80.00	<26	657.00	1103.00	<26	<26	<26	<26	<26	1103.00	mg/kg	ne	ne	ne
Total aliphatics and aromatics(C5-40)	<52	180.00	<52	1783.00	3064.00	<52	<52	<52	<52	<52	3064.00	mg/kg	ne	ne	ne
>EC6-EC10 #	<0.1	<0.1	<0.1	13.90	30.40	<0.1	<0.1	<0.1	<0.1	<0.1	30.40	mg/kg	ne	ne	ne
>EC10-EC25	<10	70.00	<10	630.00	1068.00	<10	<10	<10	<10	<10	1068.00	mg/kg	ne	ne	ne
>EC25-EC35	<10	<10	<10	13.00	16.00	<10	<10	<10	<10	<10	16.00	mg/kg	ne	ne	ne
BTEX															
MTBE #	<5	<5	<5	2907.00	5007.00	<5	<5	<5	<5	<5	5007.00	ug/kg	ne	ne	ne
Benzene #	<5	<5	<5	282.00	395.00	<5	<5	<5	<5	<5	395.00	ug/kg	87	170	370
Toluene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	ug/kg	130000	290000	660000
Ethylbenzene #	<5	<5	<5	3397.00	8582.00	<5	<5	<5	7.00	<5	8582.00	ug/kg	47000	110000	260000
m/p-Xylene #	<5	7.00	<5	10263.00	21432.00	11.00	11.00	<5	13.00	<5	21432.00	ug/kg	56000	130000	310000
o-Xylene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0.00	ug/kg	60000	140000	330000
TOC	0.34	0.26	-	-	-	-	-	-	-	-					
SOM (Note 1)	0.59	0.45	-	-	-	-	-	-	-	-		%			

Note 1 - TOC * 1.724

S4UL - TPH (Residential), Cornelscourt, Dublin, January 2019

Commercial	WS13
	2.00-3.00
Aliphatics	
>C5-C6 #	<0.1
>C6-C8 #	<0.1
>C8-C10	<0.1
>C10-C12 #	<0.2
>C12-C16 #	<4
>C16-C21 #	<7
>C21-C35 #	<7
>C16-C35 #	<14
>C35-C40	<7
Total aliphatics C5-40	<26
>C6-C10	<0.1
>C10-C25	<10
>C25-C35	<10
Aromatics	
>C5-EC7 #	<0.1
>EC7-EC8 #	<0.1
>EC8-EC10 #	<0.1
>EC10-EC12 #	<0.2
>EC12-EC16 #	<4
>EC16-EC21 #	<7
>EC21-EC35 #	<7
>EC35-EC40	<7
Total aromatics C5-40	<26
Total aliphatics and aromatics(C5-40)	<52
>EC6-EC10 #	<0.1
>EC10-EC25	<10
>EC25-EC35	<10
BTEX	
MTBE #	<5
Benzene #	<5
Toluene #	<5
Ethylbenzene #	<5
m/p-Xylene #	<5
o-Xylene #	<5
TOC	-
SOM (Note 1)	-

Note 1 - TOC * 1.724

Max Level Detected	Units	Residential with homegrown produce		
		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	ug/kg	ne	ne	ne
0.00	ug/kg	87	170	370
0.00	ug/kg	130000	290000	660000
0.00	ug/kg	47000	110000	260000
0.00	ug/kg	56000	130000	310000
0.00	ug/kg	60000	140000	330000
	%			

21432.00

S4UL - PAHs (Residential), Cornelscourt, Dubin, January 2019

	WS04										Max Level Detected	Units	Residential with homegrown produce		
	WS04		WS04		WS07		WS08		WS10				LQM/CIEH Suitable 4 Use Levels (S4ULs) [mg/kg DW]		
	1.00-2.00	2.00-3.00	3.00-4.00	1.00-2.00	2.00-3.00	3.00-4.00	1.00-2.00	2.00-3.00	2.00-3.00	3.00-4.00			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	0.08	<0.03	<0.03	0.08	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	0.18	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.14	<0.04	<0.04	0.18	mg/kg	170	400	860
Phenanthrene	0.31	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.27	<0.03	<0.03	0.31	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	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.05	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(b)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	0.34	0.26	0.14	0.38	0.26	0.19	0.25	0.29	0.34	0.26		mg/kg			
SOM (Note 1)	0.59	0.45	0.24	0.66	0.45	0.33	0.43	0.50	0.59	0.45		%			

Note 1 - TOC * 1.724

S4UL - PAHs (Residential), Cornelscourt, Dubin, January 2019

	TP-01	TP-02	TP-03	TP-04	TP-05	TP-06	TP-06	TP-07	TP-07	TP-07	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
	0.50	0.60	0.50	1.00	0.80	0.50	1.50	0.50	1.50	2.50					
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	0.05	<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	0.10	<0.03	0.10	<0.03	<0.03	<0.03	<0.03	<0.03	0.10	mg/kg	280	560	890
Pyrene	<0.03	<0.03	0.10	<0.03	0.10	<0.03	<0.03	<0.03	<0.03	<0.03	0.10	mg/kg	620	1,200	2,000
Benzo(a)anthracene	<0.06	<0.06	0.10	<0.06	0.10	<0.06	<0.06	<0.06	<0.06	<0.06	0.10	mg/kg	7.2	11	13
Chrysene	<0.02	<0.02	0.06	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	0.08	mg/kg	15	22	27
Benzo(bk)fluoranthene	<0.07	<0.07	0.11	<0.07	0.14	<0.07	<0.07	<0.07	<0.07	<0.07	0.14	mg/kg	ne	ne	ne
Benzo(a)pyrene	<0.04	<0.04	0.06	<0.04	0.08	<0.04	<0.04	<0.04	<0.04	<0.04	0.08	mg/kg	2.2	2.7	3
Indeno(123cd)pyrene	<0.04	<0.04	<0.04	<0.04	0.05	<0.04	<0.04	<0.04	<0.04	<0.04	0.05	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	0.06	<0.04	<0.04	<0.04	<0.04	<0.04	0.06	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	0.27	<0.22	0.43	<0.22	<0.22	<0.22	<0.22	<0.22	0.43	mg/kg	ne	ne	ne
PAH 17 Total	<0.64	<0.64	<0.64	<0.64	0.76	<0.64	<0.64	<0.64	<0.64	<0.64	0.76	mg/kg	ne	ne	ne
Benzo(b)fluoranthene	<0.05	<0.05	0.08	<0.05	0.10	<0.05	<0.05	<0.05	<0.05	<0.05	0.10	mg/kg	2.6	3.3	3.7
Benzo(k)fluoranthene	<0.02	<0.02	0.03	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	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	0.70	0.36	1.58	0.34	1.66	0.28	0.34	0.43	0.27	0.18		mg/kg			
SOM (Note 1)	1.21	0.62	2.72	0.59	2.86	0.48	0.59	0.74	0.47	0.31		%			

Note 1 - TOC * 1.724

S4UL - PAHs (Residential), Cornelscourt, Dubin, January 2019

	TP-07A	TP-07A	TP-08	TP-08	TP-09	TP-09	TP - 11	TP - 11	TP - 11	TP - 12	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
	0.50	1.50	0.50	1.50	0.50	1.50	1.00	2.00	3.00	0.50					
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	0.06	<0.03	<0.03	<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	0.09	<0.03	<0.03	<0.03	<0.03	<0.03	0.09	mg/kg	280	560	890
Pyrene	<0.03	<0.03	<0.03	<0.03	0.10	<0.03	<0.03	<0.03	<0.03	<0.03	0.10	mg/kg	620	1,200	2,000
Benzo(a)anthracene	<0.06	<0.06	<0.06	<0.06	0.10	<0.06	<0.06	<0.06	<0.06	<0.06	0.10	mg/kg	7.2	11	13
Chrysene	<0.02	<0.02	<0.02	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	0.08	mg/kg	15	22	27
Benzo(b)fluoranthene	<0.07	<0.07	<0.07	<0.07	0.14	<0.07	<0.07	<0.07	<0.07	<0.07	0.14	mg/kg	ne	ne	ne
Benzo(a)pyrene	<0.04	<0.04	<0.04	<0.04	0.08	<0.04	<0.04	<0.04	<0.04	<0.04	0.08	mg/kg	2.2	2.7	3
Indeno(123cd)pyrene	<0.04	<0.04	<0.04	<0.04	0.06	<0.04	<0.04	<0.04	<0.04	<0.04	0.06	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	0.05	<0.04	<0.04	<0.04	<0.04	<0.04	0.05	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	0.42	<0.22	<0.22	<0.22	<0.22	<0.22	0.42	mg/kg	ne	ne	ne
PAH 17 Total	<0.64	<0.64	<0.64	<0.64	0.76	<0.64	<0.64	<0.64	<0.64	<0.64	0.76	mg/kg	ne	ne	ne
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	0.10	<0.05	<0.05	<0.05	<0.05	<0.05	0.10	mg/kg	2.6	3.3	3.7
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	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	0.67	0.64	0.85	0.69	4.57	0.33	0.22	0.35	0.27	1.01		mg/kg			
SOM (Note 1)	1.16	1.10	1.47	1.19	7.88	0.57	0.38	0.60	0.47	1.74		%			

Note 1 - TOC * 1.724

S4UL - PAHs (Residential), Cornelscourt, Dubin, January 2019

	TP - 12	TP - 12	TP - 13	TP - 13	TP - 13	TP-14	TP-14	TP-14	TP - 16	TP - 16	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
Naphthalene	1.50	2.50	0.50	1.50	2.50	1.00	2.00	3.00	0.50	1.50	1.45	mg/kg	2.3	5.6*	13*
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	0.15	0.28	0.14	<0.03	<0.03	0.28	mg/kg	170	420	920
Acenaphthene	<0.05	<0.05	<0.05	<0.05	<0.05	0.09	0.10	0.09	<0.05	<0.05	0.10	mg/kg	210	510	1,100
Fluorene	<0.04	<0.04	<0.04	<0.04	<0.04	0.39	0.54	0.41	<0.04	<0.04	0.54	mg/kg	170	400	860
Phenanthrene	<0.03	<0.03	<0.03	<0.03	<0.03	1.51	2.19	1.54	<0.03	<0.03	2.19	mg/kg	95	220	440
Anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	0.30	0.42	0.30	<0.04	<0.04	0.42	mg/kg	2,400	5,400	11,000
Fluoranthene	<0.03	<0.03	<0.03	<0.03	<0.03	1.06	1.15	0.80	<0.03	<0.03	1.15	mg/kg	280	560	890
Pyrene	<0.03	<0.03	<0.03	<0.03	<0.03	2.80	2.86	2.41	<0.03	<0.03	2.86	mg/kg	620	1,200	2,000
Benzo(a)anthracene	<0.06	<0.06	<0.06	<0.06	<0.06	0.59	0.59	0.47	<0.06	<0.06	0.59	mg/kg	7.2	11	13
Chrysene	<0.02	<0.02	<0.02	<0.02	<0.02	0.37	0.36	0.27	<0.02	<0.02	0.37	mg/kg	15	22	27
Benzo(k)fluoranthene	<0.07	<0.07	<0.07	<0.07	<0.07	0.69	0.46	0.33	<0.07	<0.07	0.69	mg/kg	ne	ne	ne
Benzo(a)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	0.60	0.43	0.35	<0.04	<0.04	0.60	mg/kg	2.2	2.7	3
Indeno(123cd)pyrene	<0.04	<0.04	<0.04	<0.04	<0.04	0.36	0.17	0.17	<0.04	<0.04	0.36	mg/kg	27	36	41
Dibenzo(ah)anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	0.05	<0.04	<0.04	<0.04	<0.04	0.05	mg/kg	0.24	0.28	0.3
Benzo(ghi)perylene	<0.04	<0.04	<0.04	<0.04	<0.04	1.64	0.82	0.67	<0.04	<0.04	1.64	mg/kg	320	340	350
Coronene	<0.04	<0.04	<0.04	<0.04	<0.04	0.62	0.28	0.24	<0.04	<0.04	0.62	mg/kg	ne	ne	ne
PAH 6 Total	<0.22	<0.22	<0.22	<0.22	<0.22	4.35	3.03	2.32	<0.22	<0.22	4.35	mg/kg	ne	ne	ne
PAH 17 Total	<0.64	<0.64	<0.64	<0.64	<0.64	11.37	12.10	8.35	<0.64	<0.64	12.10	mg/kg	ne	ne	ne
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	0.50	0.33	0.24	<0.05	<0.05	0.50	mg/kg	2.6	3.3	3.7
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	0.19	0.13	0.09	<0.02	<0.02	0.19	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	0.29	0.15	1.18	0.34	0.49	1.04	0.72	0.63	0.95	0.29		mg/kg			
SOM (Note 1)	0.50	0.26	2.03	0.59	0.84	1.79	1.24	1.09	1.64	0.50		%			

Note 1 - TOC * 1.724

S4UL - PAHs (Residential), Cornelscourt, Dubin, January 2019

	TP - 16	TP - 17	TP - 17	TP - 17	TP-20	TP-20	TP - 21	TP - 21	TP - 21
	2.50	0.50	1.50	2.50	0.50	1.50	0.50	1.50	2.50
Naphthalene	<0.04	<0.04	<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	<0.03	<0.03
Acenaphthene	<0.05	<0.05	<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	<0.04	<0.04
Phenanthrene	<0.03	<0.03	<0.03	<0.03	0.08	<0.03	<0.03	<0.03	<0.03
Anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Fluoranthene	<0.03	<0.03	<0.03	<0.03	0.14	<0.03	0.05	<0.03	<0.03
Pyrene	<0.03	<0.03	<0.03	<0.03	0.14	<0.03	0.05	<0.03	<0.03
Benzo(a)anthracene	<0.06	<0.06	<0.06	<0.06	0.13	<0.06	<0.06	<0.06	<0.06
Chrysene	<0.02	<0.02	<0.02	<0.02	0.10	<0.02	0.05	<0.02	<0.02
Benzo(k)fluoranthene	<0.07	<0.07	<0.07	<0.07	0.20	<0.07	<0.07	<0.07	<0.07
Benzo(a)pyrene	<0.04	<0.04	<0.04	<0.04	0.11	<0.04	<0.04	<0.04	<0.04
Indeno(123cd)pyrene	<0.04	<0.04	<0.04	<0.04	0.08	<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	<0.04	<0.04
Benzo(ghi)perylene	<0.04	<0.04	<0.04	<0.04	0.08	<0.04	<0.04	<0.04	<0.04
Coronene	<0.04	<0.04	<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	0.61	<0.22	<0.22	<0.22	<0.22
PAH 17 Total	<0.64	<0.64	<0.64	<0.64	1.06	<0.64	<0.64	<0.64	<0.64
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	0.14	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	0.06	<0.02	<0.02	<0.02	<0.02
Benzo(j)fluoranthene	<1	<1	<1	<1	<1	<1	<1	<1	<1
TOC	0.28	1.00	0.30	0.33	2.44	0.24	1.40	0.36	0.36
SOM (Note 1)	0.48	1.72	0.52	0.57	4.21	0.41	2.41	0.62	0.62

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
0.08	mg/kg	95	220	440
0.00	mg/kg	2,400	5,400	11,000
0.14	mg/kg	280	560	890
0.14	mg/kg	620	1,200	2,000
0.13	mg/kg	7.2	11	13
0.10	mg/kg	15	22	27
0.20	mg/kg	ne	ne	ne
0.11	mg/kg	2.2	2.7	3
0.08	mg/kg	27	36	41
0.00	mg/kg	0.24	0.28	0.3
0.08	mg/kg	320	340	350
0.00	mg/kg	ne	ne	ne
0.61	mg/kg	ne	ne	ne
1.06	mg/kg	ne	ne	ne
0.14	mg/kg	2.6	3.3	3.7
0.06	mg/kg	77	93	100
0.00	mg/kg	ne	ne	ne
	mg/kg			
	%			