PORTWAY

VERIFICATION REPORT

FOR REMEDIAL WORKS UNDERTAKEN

AT

LAND OFF

PORT STREET, MANCHESTER

CLIENT: RENAKER BUILD LTD

Date: 20/03/2023

Ref: PTW22030 CR1

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DOCUMENT CONTROL SHEET

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1.0 EXECUTIVE SUMMARY

Portway Remediation was appointed by Renaker Ltd to carry out remediation works on a parcel of land accessed off Port Street in Manchester. The development area is located within the Ancoats area of Manchester and is bounded by Great Ancoats Street to the north, Brownsfield Mill and a surface car park to the east, another surface car park to the south, and Port Street to the west. National Grid Reference 384863E, 398461N.

The zone of the remedial works within the land parcel has been subject to previous investigations; WSP Ref 70084785. This report has been produced for submission to the Local Planning Authority and Environment Agency, to seek discharge of conditions relating to the Planning Permission.

Summary of Remedial Works

Listed below is a brief outline of the works carried out by Portway:

Enabling Works:

- Site Set up.
- Breakout the hardstanding and crush to 6F2 for reuse.
- Seal or cap interconnecting services feeding into the canal basin.
- Install clay cut off walls at the end of each outfall.

Remediation Works:

- Undertake works under a watching brief and record the findings.
- Removal of relic canal infilled material from the from the historic canal basin.
- Segregate the visibly clean over burden.
- Segregate the impacted (contamination/moisture) soils.
- Once validated, material to be removed to a suitable waste facility.
- Add a cement binder to facilitate the removal and transportation of the waste materials.
- Backfill the voids with 6f2 granular material as a building platform.
- Validation of the site and submission of the Verification report.

This report should be read in conjunction with the following report(s):

- WSP UK Ltd, November 2021. Ground Investigation Report, Port Street, Manchester, Ref. 70084785-WSP-GEO-IGR-001.
- WSP UK Ltd. January 2022. Addendum to Phase 2 Report, Port Street, Manchester, Ref. 70084785-WSP-GEO-IGR-002 R01.

- Introduction

1.1 Appointment

Portway Remediation was appointed by Renaker to prepare a Remedial Method for remedial works to address the hydrocarbon impacted ground denoted on site. Ref: PTW22030/RMS

1.2 Roles and Responsibilities

The project team responsible for the delivery of the remedial works is described in Table 1, below.

Table 1 Summary of Roles

Team Member	*Role*
Portway Remediation	Remediation Contractor
WSP	Consultant
Renaker	Client

2.0 REMEDIAL WORKS

2.1 Site History and Previous Remedial Works

The site was an undeveloped area until 1850 when a canal basin was installed, this interlinked with the industries and domestic properties within this area. Between 1999 and 2021 a reduction in industrial buildings has been noted and the site became a carpark. With an adjoining mill being redeveloped into a residential block. An historical plan from 1851 can be found in appendix A.

2.2 Development Plans

The site has been zoned for new residential development. The development proposals include, the redevelopment of the site with two new multi-story residential blocks, one 33 stories and the other 19 stories, totalling circa 450 apartments.

2.3 Geology

Published geological mapping (BGS, 2004) indicates the site to be underlain by Glacial Till and sandstone of the Chester Formation (formerly the Chester Pebble Beds Formation).

2.4 Hydrogeology

The aquifer status is shown to be a Secondary Aquifer Undifferentiated. The underlying bedrock is classified as a Principal Aquifer.

2.5 Hydrology

The Rochdale Canal is the closest surface water body and is located approximately 30m to the southeast of the site.

2.6 Contamination Scenario and Treatment

In general terms the site has a section of infilled canal deemed to contain a number of different wastes and be more of a slurry than a solid material.

After removing the infilled material, the resultant stockpiles were documented and samples taken. The soil testing results were assessed by the permitted waste facilities to ensure that they met the acceptance criteria for the facility. The disposal of the ex-situ material was undertaken by a Renaker's waste contractor J O'Shea and Sons Ltd. Copies of waste notes can be found in appendix C.

An asbestos screen and quantification were undertaken showing that no fibres were detected within the general material disposed offsite with the exception of SP15. The quantification of 0.011% was below the waste acceptance criteria (WAC) for the forwarding waste facility. Asbestos traces were found in a number of samples taken from the stockpiles, but no visible fragments were found.

The excavation process progressed systematically through the numbered cells within the relic canal, each defined cell and subsequent stockpile location was formally recorded and surveyed. (A numbered plan of the infilled cells can be found within the appendix A).

As the excavation advanced through the cells an amount of perched water was held within the clay lined canal basin which was incorporated into the stabilisation process. An excess body of

perched water was bunded within the clay lined canal to enable the removal to a waste facility. The water was recovered by a self-loading vacuum tanker for off site disposal, approximately 20m3 of liquid was recovered, then the void was partly backfilled using an imported 6F2 material to make the area safe prior to the other interlocking site works commencing.

A daily log of the cells excavations and stockpile locations was produced to be used as a detailed record of all material movements within the site. Copies of the plans, material/waste tracker and waste notes can be found in appendix A.
An illustration of the material/waste tracker shows that cell 10 had noted cement bonded asbestos and that this was placed in stockpile 11 with a volume 5m3 of material being surveyed. This material was directly removed due to the nature of the waste type.

Canal cell 8 recorded a localised pocket of contamination equating to just <3m3 of material this was also added to stockpile 11 and classed as hazardous waste.

Within canal cell 9 and 10 the water which percolated through the made ground is recorded as being contained within the void. The body of water discovered was worked and pushed towards a clay break barrier wall, then held by a further clay barrier enabling offsite disposal.

A photographic log in appendix A shows the different materials discovered and how the material was stockpiled, treated, and allowed to cure to enable the transport and offsite disposal to a suitable waste facility.

PID readings of pile arisings were not undertaken following the excavation of the material as no discernible odours were detected on site.

A total volume of 2865m3 was removed from the canal basin and disposed of to suitable waste facilities. A breakdown is shown in the table below.

Material	Volume
Non-Hazardous	1675m3
Hazardous	595m3
Hard Materials	595m3

The screening values were produced by WSP and a copy of the GAC is presented below.

			Lab No	
			Sample ID	
			Depth	
			Strata	
			Other ID	
			Sample Type	GAC - Residential without Plant Uptake - 1% SOM
			Sampling Date	
			Sampling Time	
Test	Method	LOD	Units	
Metals				
Antimony	DETSC 2301*	1	mg/kg	643
Arsenic	DETSC 2301#	0.2	mg/kg	35
Beryllium	DETSC 2301#	0.2	mg/kg	-
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	10500
Cadmium	DETSC 2301#	0.1	mg/kg	87
Chromium III	DETSC 2301*	0.15	mg/kg	1590
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	4.50
Copper	DETSC 2301#	0.2	mg/kg	7520
Lead	DETSC 2301#	0.3	mg/kg	188
Manganese	DETSC 2301#	20	mg/kg	1820
Mercury	DETSC 2325#	0.05	mg/kg	56
Molybdenum	DETSC 2301#	0.4	mg/kg	673
Nickel	DETSC 2301#	1	mg/kg	181
Selenium	DETSC 2301#	0.5	mg/kg	430
Zinc	DETSC 2301#	1	mg/kg	40400
Inorganics				
Loss on Ignition (Fines)	DETSC 5022	0.01	%	
pH	DETSC 2008#		pH	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	15
Organic matter	DETSC 2002#	0.1	%	
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	161
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	529
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	154
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	754
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	3490
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	89100
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	89100
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	1360
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	3640
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	265
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	1090
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	1730
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	1340
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	1340
Aromatic C5-C35	DETSC 3072*	10	mg/kg	
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg	-
Benzene	DETSC 3321#	0.01	mg/kg	1.4
Ethylbenzene	DETSC 3321#	0.01	mg/kg	435
Toluene	DETSC 3321#	0.01	mg/kg	3700
Xylene	DETSC 3321#	0.01	mg/kg	424
MTBE	DETSC 3321	0.01	mg/kg	
PAHs				
Naphthalene	DETSC 3301	0.1	mg/kg	13
Acenaphthylene	DETSC 3301	0.1	mg/kg	
Acenaphthene	DETSC 3301	0.1	mg/kg	
Fluorene	DETSC 3301	0.1	mg/kg	
Phenanthrene	DETSC 3301	0.1	mg/kg	
Anthracene	DETSC 3301	0.1	mg/kg	
Fluoranthene	DETSC 3301	0.1	mg/kg	
Pyrene	DETSC 3301	0.1	mg/kg	
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg	
Chrysene	DETSC 3301	0.1	mg/kg	
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg	
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg	
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg	1.7
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg	
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg	
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg	
PAH Total	DETSC 3301	1.6	mg/kg	
Phenols				
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	280

Please note that these values should not be used for importing capping materials as it is likely to be classed as hazardous waste.

Due to the site constraints validation sampling was not undertaken because the majority of the stone sidewalls from the relic canal were left insitu and samples were not collected from the clay base. This is because the site was subject to further deeper excavation to allow the construction of the basement car parking.

2.7 Underground Structures

The canal walls were left intact during the excavation process. This was to aid in containing any water ingress from the surrounding made ground. The canal wall also prevented cross contamination from occurring by containing the silty slurry.

Beyond this no other noteworthy items or historic structures were encountered. A section of the relic canal near to the former Hill Service Garage boundary was left insitu in order to ensure that no damage or subsidence occurred from the movement of historic materials.

After completing the remedial works within the relic canal, 4 sections of the canal wall were subject to break out and removal to prevent rainwater ingress being held within the former canal basin.

2.8 Decommissioning of boreholes

Where borehole installations are discovered, these were filled with bentonite pellets to block the pathway, as previously agreed and discussed with the Environment Agency at Greengate, Manchester.

3.0 CONCLUSIONS

All required remedial works contained in the Remediation Method Strategy (RMS) were carried out and completed by Portway under the observation of Renaker.

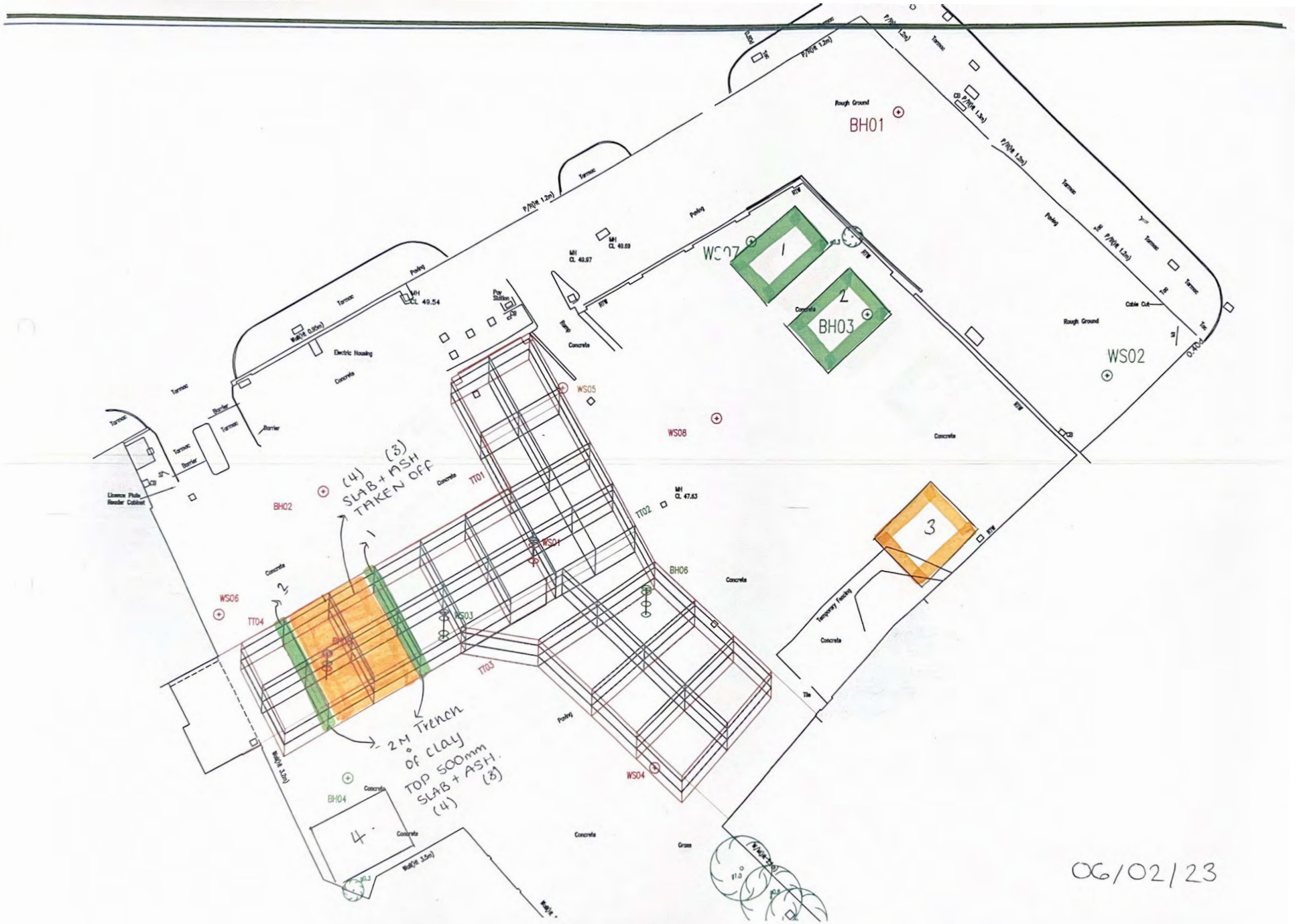
The material encountered within the relic canal basin was a mixture of clay, ash, brick and silt. While the material appeared to be contaminated from the boreholes and trial pits, it generally consisted of different layers of material, mostly non-hazardous materials.

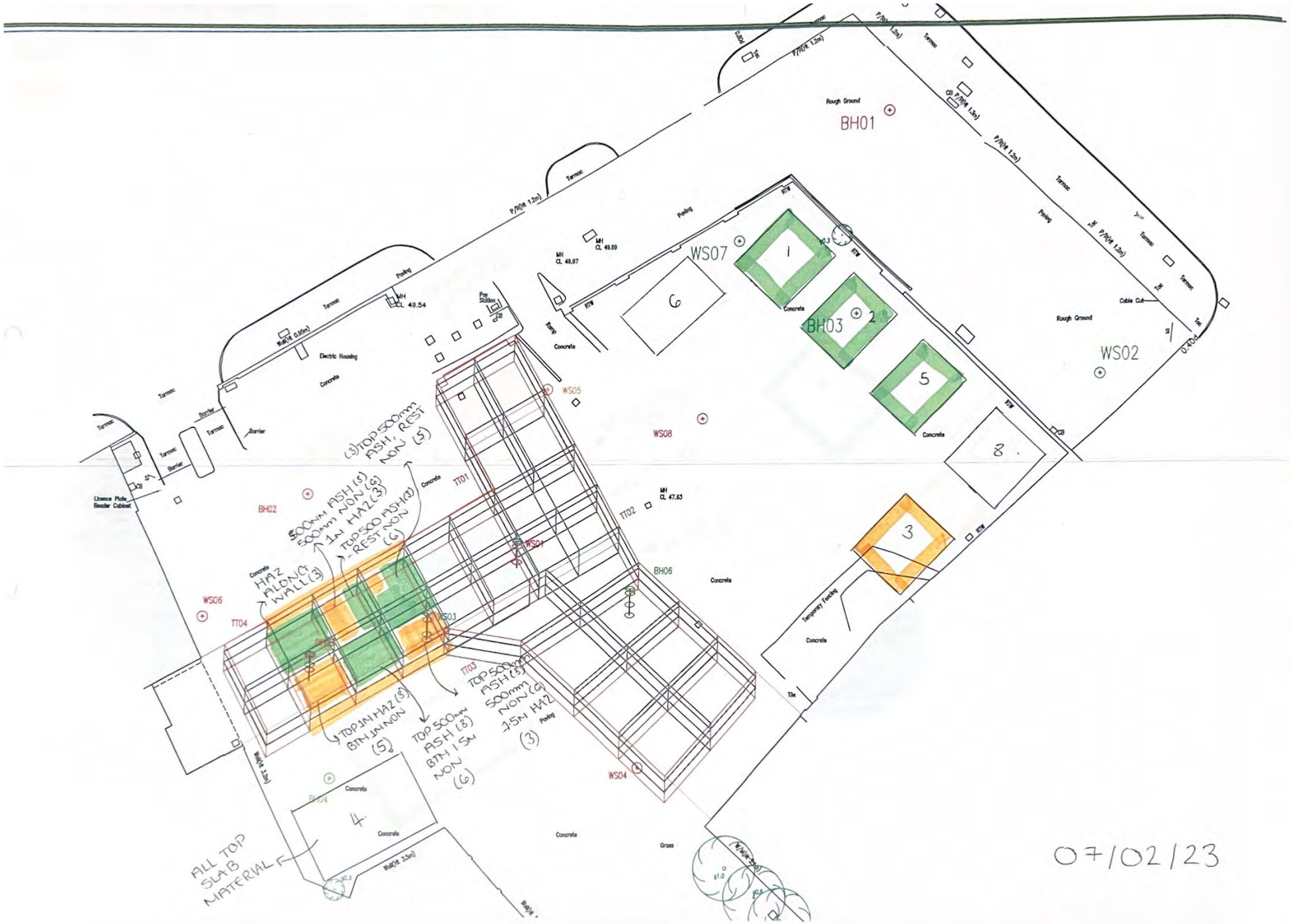
It is therefore considered that the site has now been correctly excavated to recover the made ground used to infill the canal. This material was subject to a pre-treatment to stabilize the material and reduce/remove the slurry properties. Thus, enabling the material to be handled and loaded into lorries for offsite disposal at permitted waste facilities. The removal of the waste material demonstrates compliance with the RMS and the risk to receptors has been suitably addressed by removing the material.

This report acts as a record of works carried out by Portway and a separate report is to be produced later, following the completion of the excavation to reduce the site levels to accommodate the proposed development. The completed report can be submitted for validation purposes to the regulatory Authorities.

APPENDIX A - SITE PLANS & LOGS


Typical cell excavation general arrangement
4.3m
4.3m
6m
6m
4.5m
4.5m
4.5m
5.5m
5.5m
5.5m
6.5m
6.5m
5m
5m
5m
5m
5m
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
WS01
WS03
WS04
WS05
WS06
WS08
BH02
BH04
BH05
BH06
TT01
TT03
TT04
Wall(Ht 0.95m)
Electric Housing
Concrete
Tarmac
Barrier
Tarmac
Barrier
Tarmac
Barrier
Concrete
Ramp
Concrete
Concrete
Temporary Fencing
Concrete
Tile
Paving
Wall(Ht 3.2m)
Concrete


BH01
BH02
BH03
BH04
WS01
WS02
WS03
WS04
WS05
WS06
WS07
WS08
TT01
TT02
TT03
TT04
1
2
3
4
(4) SLAB + ASH (3) TAKEN OFF
2M Trench of clay TOP 500mm SLAB + ASH. (3) (4)
Rough Ground
Concrete
Tarmac
Grass
Electric Housing
Temporary Fencing
Cable Cut
06/02/23


BH01
BH02
BH03
BH06
WS01
WS02
WS03
WS04
WS05
WS06
WS07
WS08
TT01
TT02
TT03
TT04
Rough Ground
Tarmac
Concrete
Grass
Parking
Electric Housing
Cable Cut
Temporary Fencing
(3)TOP 500mm ASH, REST NON (5)
500mm ASH (5)
500mm NON (6)
1M HAZ (3)
TOP 500 ASH (3) - REST NON (6)
HAZ ALONG WALL (3)
TOP 1M HAZ (3) BTM 1M NON (5)
TOP 500mm ASH (3) BTM 1M NON (6)
TOP 500mm ASH (3) 500mm NON (6) 1M HAZ (3)
ALL TOP SLAB MATERIAL
07/02/23


- NON HAZ
- HAZ
BH01
WS07
6
1
BH03
2
WS02
7
5
8
3
4
WS05
WS08
WS01
WS06
WS04
BH02
BH04
BH05
BH06
TT01
TT02
TT03
TT04
Top stone and concrete (4)
Contaminated (3)
1.5m-2m (3)
1.5m-2m (3)
Top 200-300mm Non HAZ (7)
1m-1.5m (3)
1m-1.5m (3)
1m-1.5m (3)
500mm-1m (3)
Concrete
Tarmac
Grass
Rough Ground
Electric Housing
Cable Cut
Temporary Fencing
08/02/23


- HAZ
- NON-HAZ.
BH01
WS07
WS02
BH03
BH02
BH04
BH06
WS01
WS03
WS04
WS05
WS06
WS08
TT01
TT02
TT03
TT04
2.5M HAZ.
TOP 1M HAZ
BOTTOM 1.5-NON
1
2
3
4
5
6
7
8
Rough Ground
Concrete
Tarmac
Grass
Tile
Temporary Fencing
Electric Housing
Cable Cut
10/02/23.


SUSPECTED:
- HAZ
- NON HAZ
BH01
BH03
BH04
BH06
WS01
WS02
WS03
WS04
WS05
WS06
WS07
WS08
TT01
TT02
TT03
TT04
1
2
3
4
5
6
7
8
9
10
TOP 1.5M NONHAZ - 6, 7
BTM 1M HAZ - 10.
2.5M HAZ - 10.
ASBESTOS ACM

13/02/2023

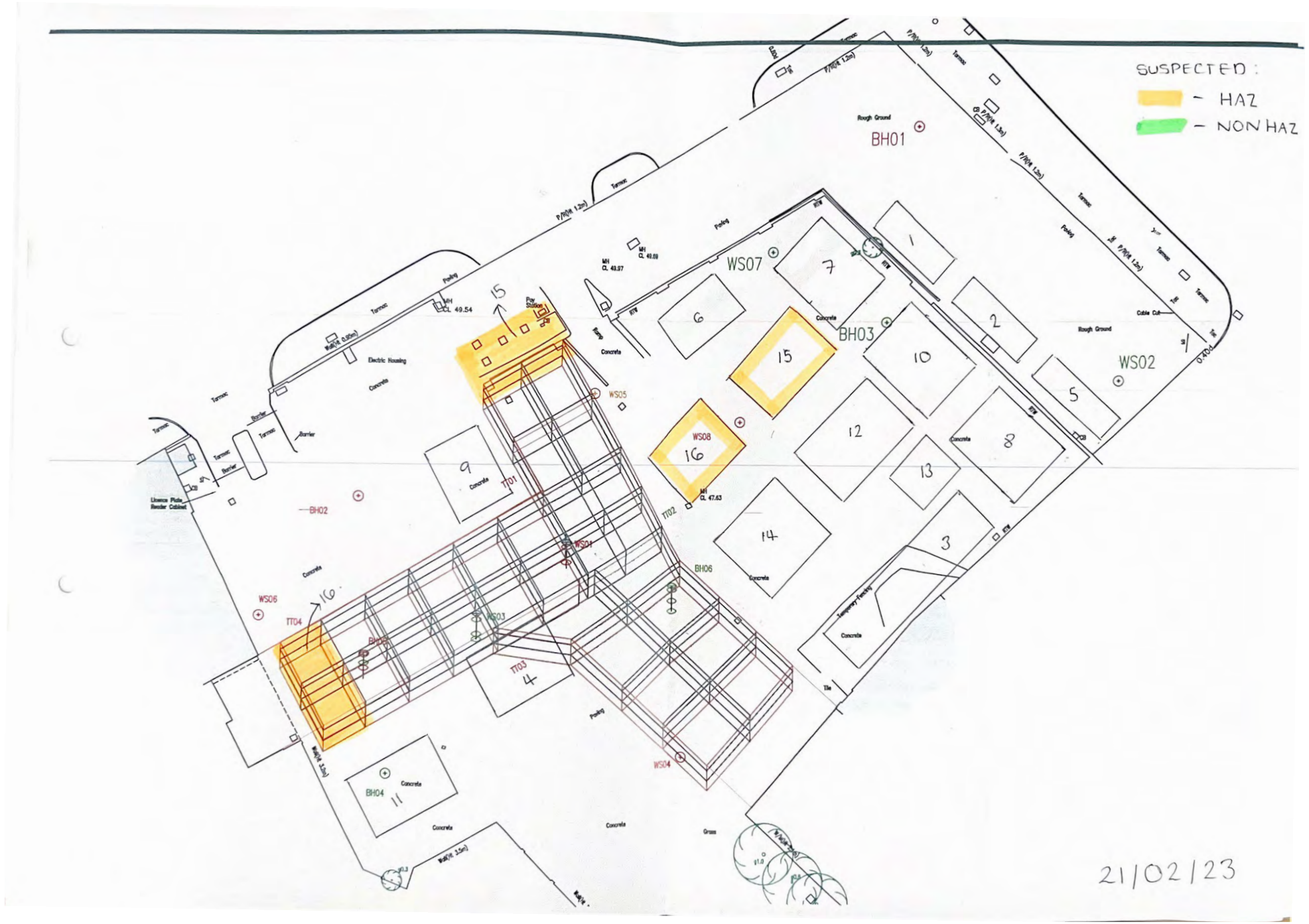

SUSPECTED
HAZ
NON-HAZ
BH01
WS07
BH03
WS02
WS05
WS08
WS01
BH06
WS03
WS06
TT04
BH05
TT03
WS04
BH04
TT01
TT02
2.5H HAZ
10
1
2
3
4
5
6
7
8
9
10
11
14/02/2023


SUSPECTED:
- HAZ
- NONHAZ
POCKET OF HAZ (10)
HAZ (10)
BH01
WS07
BH03
WS02
1M - 2M
HAZ (10)
500mm - 1m
NON HAZ
(6)
TOP SLAB
CONCRETE (4)
15/02/23


BH01
WS07
BH03
WS02
WS05
WS08
WS01
WS06
WS03
WS04
BH06
BH04
1m-2m HA2
(12)
500mm-2m HA2
(12)
1m-2m CLEAN
(6)
1
2
3
4
5
6
7
8
9
10
11
12
- HA2
- NON HA2
16/02/23


- HAZ
- NON HAZ
BH01
BH03
BH04
BH06
WS02
WS04
WS05
WS06
WS07
WS08
TT01
TT02
TT03
TT04
1
2
3
4
5
6
7
8
9
10
11
12
13
14
1.5-2m Non HAZ (14)
0.5-2m HAZ (12)
1.5-2m HAZ (12)
1m-2m NON HAZ (14)
TOP stone / concrete (4)
HAZ (12)
17/02/23


ALL HAZ (12)
lots of brick (9)
BH01
BH02
BH03
BH04
BH06
WS01
WS02
WS03
WS04
WS05
WS06
WS07
WS08
TT01
TT02
TT03
TT04
1
2
3
4
5
6
7
8
9
10
11
12
13
14
Rough Ground
Concrete
Tarmac
Paving
Grass
Cable Cut
Electric Housing
Temporary Fencing
- HAZ
- NON HAZ
20/02/23


SUSPECTED :
- HAZ
- NON HAZ
BH01
BH02
BH03
BH04
BH05
BH06
WS01
WS02
WS03
WS04
WS05
WS06
WS07
WS08
TT01
TT02
TT03
TT04
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
21/02/23

RENAKER

PORT ST

GROUND REMEDIATION TRACKER

Date	Cell No.	Percent	Stockpile	Volume (m^3)
06/02/2023	15	15.00%	1	7
06/02/2023	15	15.00%	3	7
06/02/2023	15	30.00%	4	14
07/02/2023	15	25.00%	3	12
07/02/2023	15	15.00%	6	7
			TOTAL:	45
06/02/2023	16	15.00%	1	8
06/02/2023	16	35.00%	3	17
06/02/2023	16	20.00%	4	10
07/02/2023	16	30.00%	6	15
			TOTAL:	47
06/02/2023	17	33.00%	2	15
06/02/2023	17	11.00%	3	5
06/02/2023	17	25.00%	4	12
07/02/2023	17	20.00%	5	9
07/02/2023	17	11.00%	3	5
			TOTAL:	45
06/02/2023	18	33.00%	2	16
06/02/2023	18	15.00%	3	7
06/02/2023	18	22.00%	4	11
07/02/2023	18	15.00%	3	7
07/02/2023	18	15.00%	5	7
			TOTAL:	47
07/02/2023	13	35.00%	5	16
07/02/2023	13	40.00%	3	18
07/02/2023	13	25.00%	4	12
			TOTAL:	45
07/02/2023	14	40.00%	3	19
07/02/2023	14	20.00%	6	10
07/02/2023	14	15.00%	5	7
07/02/2023	14	25.00%	4	12
			TOTAL:	47
08/02/2023	9	40.00%	3	18
08/02/2023	9	35.00%	7	16
08/02/2023	9	25.00%	4	12
			TOTAL:	45
08/02/2023	10	45.00%	3	21
08/02/2023	10	20.00%	7	10
08/02/2023	10	25.00%	4	12
08/02/2023	10	10.00%	11	5
			TOTAL:	47
08/02/2023	11	30.00%	3	14

08/02/2023	11	45.00%	7	21
08/02/2023	11	25.00%	4	12
			TOTAL:	45
08/02/2023	12	35.00%	3	17
08/02/2023	12	40.00%	7	19
08/02/2023	12	25.00%	4	12
				47
10/02/2023	3	75.00%	8	41
10/02/2023	3	25.00%	4	14
			TOTAL:	54
10/02/2023	4	75.00%	8	39
10/02/2023	4	25.00%	4	13
			TOTAL:	52
10/02/2023	5	25.00%	4	11
10/02/2023	5	20.00%	7	9
10/02/2023	5	55.00%	8	23
			TOTAL:	41
10/02/2023	6	25.00%	4	10
10/02/2023	6	55.00%	7	22
10/02/2023	6	20.00%	8	8
			TOTAL:	40
10/02/2023	7	25.00%	4	11
10/02/2023	7	15.00%	7	7
10/02/2023	7	60.00%	8	26
			TOTAL:	42
10/02/2023	8	25.00%	4	11
10/02/2023	8	40.00%	7	17
10/02/2023	8	30.00%	8	13
10/02/2023	8	5.00%	11	3
			TOTAL:	41
13/02/2023	1	25.00%	4	14
14/02/2023	1	40.00%	16	22
14/02/2023	1	35.00%	13	19
			TOTAL:	54
13/02/2023	2	25.00%	4	13
14/02/2023	2	25.00%	16	13
14/02/2023	2	50.00%	13	26
			TOTAL:	51
13/02/2023	22	25.00%	9	21
13/02/2023	22	20.00%	6	17
13/02/2023	22	10.00%	7	9
13/02/2023	22	45.00%	3	38
			TOTAL:	84
13/02/2023	21	25.00%	9	16
13/02/2023	21	55.00%	6	35
13/02/2023	21	10.00%	10	7
14/02/2023	21	10.00%	10	7
			TOTAL:	63

14/02/2023	23	30.00%	9	23
14/02/2023	23	70.00%	10	53
			TOTAL:	76
14/02/2023	24	30.00%	9	26
14/02/2023	24	70.00%	10	61
			TOTAL:	86
15/02/2023	25	25.00%	9	17
15/02/2023	25	75.00%	10	51
			TOTAL:	68
15/02/2023	26	35.00%	9	27
15/02/2023	26	65.00%	12	49
			TOTAL:	75
14/02/2023	27	35.00%	9	24
17/02/2023	27	20.00%	12	14
17/02/2023	27	45.00%	14	31
			TOTAL:	69
14/02/2023	28	35.00%	9	27
17/02/2023	28	35.00%	12	27
17/02/2023	28	30.00%	15	23
			TOTAL:	76
21/02/2023	19	20.00%	9	9
21/02/2023	19	20.00%	16	9
21/02/2023	19	30.00%	17	13
21/02/2023	19	30.00%	18	13
			TOTAL:	42
21/02/2023	20	25.00%	9	12
21/02/2023	20	35.00%	16	16
21/02/2023	20	20.00%	17	9
21/02/2023	20	20.00%	18	9
			TOTAL:	45

TOTAL:	**1542**



Breaking out and stockpiling of concrete slab - SP4.



Picture showing the concrete slab over laying cohesive in fill of canal basin.



Surveying in canal basin and cells.



Archaeologist and Surveyor overseeing the remedial works.



Cell locations marked on boundary walls.



Excavation of void to depth of puddle clay for the imported clay barrier.



Excavation to 3m below slab lever then backfilled with imported 6f2 grade material.



Picture shows small pocket of cement bonded asbestos insitu.



Pictures shows perched water held within the canal basin.



Pictures shows perched water held in clay bunds ready for offsite disposal.





Perched water being removed via a vacuum tanker to a waste facility.



Excavation of location of bunded perched water. Backfilled with 6f2 material.



Picture shows base of excavation and stock piles in the background.

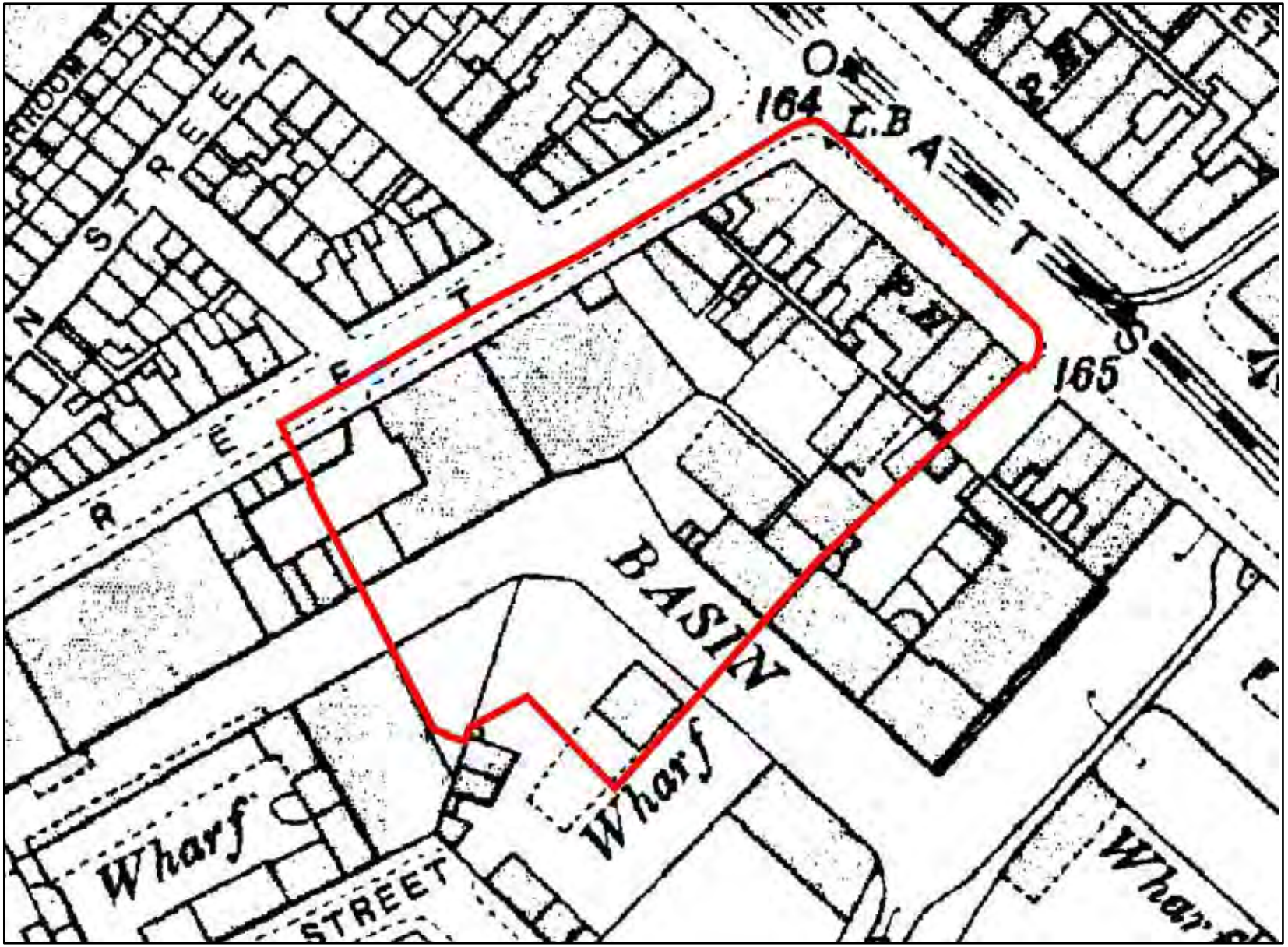


Breaking out canal wall to prevent waters being trapped with the former canal basin.



Picture shows the excavated stockpiles awaiting offsite disposal’

Historical Plan of Canal Basin



APPENDIX B - TEST RESULTS

M U R R A Y R I X

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870

UKAS TESTING 1580

TEST CERTIFICATE

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4:2016

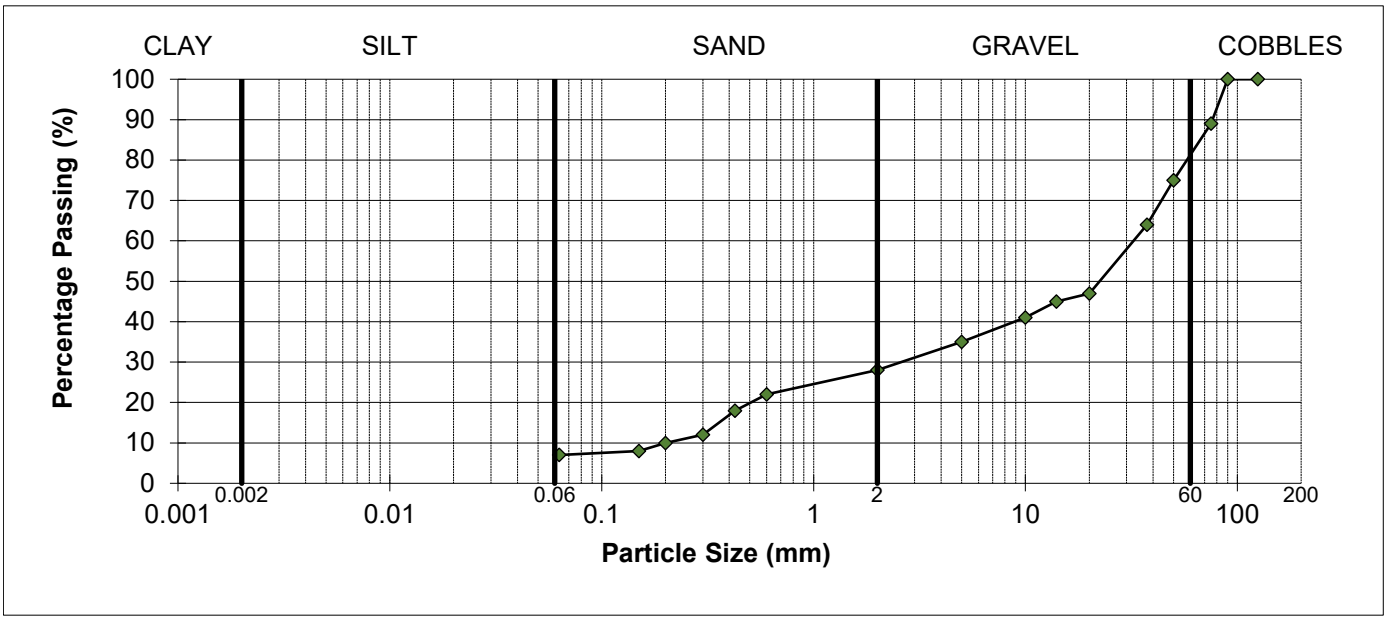
Determination of Water Content in accordance with BS EN ISO 17892-1:2014 (Oven Dry)

CLIENT	J O'Shea & Sons Ltd
SITE	Orchard Street, Salford
JOB NUMBER	MRN 4643/3

SAMPLE LABEL	DH/16/01/23-6F2	DATE SAMPLED	16-Jan-23
LAB SAMPLE No	120245	DATE RECEIVED	16-Jan-23
DATE TESTED	17-Jan-23	SAMPLED BY	Murray Rix

MATERIAL	Recycled Aggregate
ADVISED SOURCE	As client and site above

Sieve Size (mm)	% Passing (%)	Specification (%)	Sieve Size (mm)	% Passing (%)	Specification (%)
125	100	100	5	35	10-45
90	100	80-100	2	28	
75	89	65-100	0.6	22	0-25
50	75		0.425	18	
37.5	64	45-100	0.3	12	
20	47		0.2	10	
14	45		0.15	8	
10	41	15-60	0.063	7	0-12



REMARKS

As received water content = 11.8%

Sample complies with the advised grading specification for a 6F2 material (SHW 2016)

SIGNED

NAME O.P. Davies BA (Hons) (Laboratory Manager) DATE 24-Jan-23

Jon Berry
Portway Plant Ltd
Holly Farm
Whitepits Lane
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Birmingham
B48 7HP

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i2 Analytical Ltd.
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WD18 8YS

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e: reception@i2analytical.com

Analytical Report Number : 23-16506

Project / Site name:	Port St Manchester	**Samples received on:**	08/02/2023
Your job number:		**Samples instructed on/ Analysis started on:**	08/02/2023
Your order number:		**Analysis completed by:**	16/02/2023
Report Issue Number:	1	**Report issued on:**	17/02/2023
Samples Analysed:	4 soil samples		

Signed:

Dominika Warjan
Junior Reporting Specialist
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

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The results included within the report relate only to the sample(s) submitted for testing.

Analytical Report Number: 23-16506
Project / Site name: Port St Manchester

Lab Sample Number				2578731	2578732	2578733	2578734
Sample Reference				Impacted Clay 2	Ash - 3	Silt - 1	Clay - 3
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				06/02/2023	06/02/2023	06/02/2023	08/02/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	28	23	29	18
Total mass of sample received	kg	0.001	NONE	0.9	0.9	0.9	0.9
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	SFS	SFS	SFS	SFS
General Inorganics							
pH - Automated	pH Units	N/A	MCERTS	7.7	7.8	7.8	8.1
Speciated PAHs							
Naphthalene	mg/kg	0.05	MCERTS	2.2	2.6	0.48	0.06
Acenaphthylene	mg/kg	0.05	MCERTS	0.81	0.44	0.18	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	8.3	1.2	1.2	0.12
Fluorene	mg/kg	0.05	MCERTS	7.8	1.9	1.5	0.13
Phenanthrene	mg/kg	0.05	MCERTS	30	12	4.8	0.36
Anthracene	mg/kg	0.05	MCERTS	11	2.6	1.8	0.15
Fluoranthene	mg/kg	0.05	MCERTS	99	14	21	1.6
Pyrene	mg/kg	0.05	MCERTS	86	14	17	1.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	40	7	6.3	0.58
Chrysene	mg/kg	0.05	MCERTS	31	5	5.6	0.5
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	26	4.7	4.9	0.38
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	12	3.5	1.9	0.28
Benzo(a)pyrene	mg/kg	0.05	MCERTS	24	5	4.1	0.4
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	12	2.4	1.8	0.19
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	3.5	0.7	0.63	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	15	2.9	2.4	0.27
Total PAH							
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	409	80.5	75.2	6.32
Heavy Metals / Metalloids							
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	97	46	45	12
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	5.6	5.4	3.6	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	32	17	31	28
Copper (aqua regia extractable)	mg/kg	1	MCERTS	430	84	230	32
Lead (aqua regia extractable)	mg/kg	1	MCERTS	700	230	440	33
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	2.5	2	1.4	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	56	29	41	34
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	1900	1400	1100	94
Monoaromatics & Oxygenates							
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0

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Analytical Report Number: 23-16506
Project / Site name: Port St Manchester

Lab Sample Number				2578731	2578732	2578733	2578734
Sample Reference				Impacted Clay 2	Ash - 3	Silt - 1	Clay - 3
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				06/02/2023	06/02/2023	06/02/2023	08/02/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
Petroleum Hydrocarbons							
TPH-CWG - Aliphatic >EC5 - EC6 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 $_{EH_CU_1D_AL}$	mg/kg	1	MCERTS	8.5	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 $_{EH_CU_1D_AL}$	mg/kg	2	MCERTS	45	5.7	3.5	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	170	21	36	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	2100	350	480	31
TPH-CWG - Aliphatic (EC5 - EC35) $_{EH_CU+HS_1D_AL}$	mg/kg	10	NONE	2300	370	520	34
TPH-CWG - Aromatic >EC5 - EC7 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 $_{EH_CU_1D_AR}$	mg/kg	1	MCERTS	4	5.6	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 $_{EH_CU_1D_AR}$	mg/kg	2	MCERTS	70	16	16	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	590	65	140	< 10
TPH-CWG - Aromatic >EC21 - EC35 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	1300	240	450	30
TPH-CWG - Aromatic (EC5 - EC35) $_{EH_CU+HS_1D_AR}$	mg/kg	10	NONE	2000	330	610	37

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

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Analytical Report Number : 23-16506
Project / Site name: Port St Manchester

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2578731	Impacted Clay 2	None Supplied	None Supplied	Brown clay and sand with gravel.
2578732	Ash - 3	None Supplied	None Supplied	Brown sandy loam with gravel.
2578733	Silt - 1	None Supplied	None Supplied	Brown clay and sand.
2578734	Clay - 3	None Supplied	None Supplied	Brown clay and sand.

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Analytical Report Number : 23-16506
Project / Site name: Port St Manchester

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073B-PL	W	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS

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Analytical Report Number : 23-16506
Project / Site name: Port St Manchester

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

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Analytical Report Number : 23-16506

Project / Site name: Port St Manchester

This deviation report indicates the sample and test deviations that apply to the samples submitted for analysis.Please note that the associated result(s) may be unreliable and should be interpreted with care.

Key: a - No sampling date b - Incorrect container c - Holding time d - Headspace e - Temperature

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
Ash - 3	None Supplied	S	2578732	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
Ash - 3	None Supplied	S	2578732	b	TPHCWG (Soil)	L088/76-PL	b
Clay - 3	None Supplied	S	2578734	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
Clay - 3	None Supplied	S	2578734	b	TPHCWG (Soil)	L088/76-PL	b
Impacted Clay 2	None Supplied	S	2578731	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
Impacted Clay 2	None Supplied	S	2578731	b	TPHCWG (Soil)	L088/76-PL	b
Silt - 1	None Supplied	S	2578733	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
Silt - 1	None Supplied	S	2578733	b	TPHCWG (Soil)	L088/76-PL	b

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The results included within the report relate only to the sample(s) submitted for testing.

[redacted]
Portway Plant Ltd
Holly Farm
Whitepits Lane
Portway
Birmingham
B48 7HP

[redacted]

i2 Analytical Ltd.
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Croxley Green
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Watford,
Herts,
WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 23-16509

Project / Site name:	Port St Manchester	**Samples received on:**	08/02/2023
Your job number:		**Samples instructed on/ Analysis started on:**	08/02/2023
Your order number:		**Analysis completed by:**	17/02/2023
Report Issue Number:	1	**Report issued on:**	17/02/2023
Samples Analysed:	2 10:1 WAC samples		

Signed [redacted]

Izabela Wójcik
Reporting Specialist
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

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The results included within the report relate only to the sample(s) submitted for testing.

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Croxley Green Business Park
Watford, WD18 8YS

Telephone: 01923 225404
Fax: 01923 237404
email:reception@i2analytical.com

Waste Acceptance Criteria Analytical Results

Report No:	**23-16509**						
					Client:	**PORTWAY**	
Location	**Port St Manchester**						
Lab Reference (Sample Number)	2578742 / 2578743				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	06/02/2023						
Sample ID	Ash - 3				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Depth (m)							
Solid Waste Analysis							
TOC (%)**	1.9				3%	5%	6%
Loss on Ignition (%) **	5.6				--	--	10%
BTEX (µg/kg) **	< 5.0				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	480				500	--	--
Total PAH (WAC-17) (mg/kg)	79.5				100	--	--
pH (units)**	7.7				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	17				--	To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.0037			0.0286	0.5	2	25
Barium *	0.131			1.02	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	< 0.0004			< 0.0040	0.5	10	70
Copper *	0.0086			0.067	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0293			0.228	0.5	10	30
Nickel *	0.0045			0.035	0.4	10	40
Lead *	0.0011			< 0.010	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	0.0045			< 0.040	0.1	0.5	7
Zinc *	0.082			0.64	4	50	200
Chloride *	2.0			16	800	15000	25000
Fluoride*	0.34			2.7	10	150	500
Sulphate *	280			2200	1000	20000	50000
TDS*	470			3700	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	4.25			33.0	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	0.90						
Dry Matter (%)	77						
Moisture (%)	23						

Results are expressed on a dry weight basis, after correction for moisture content where applicable. *= UKAS accredited (liquid eluate analysis only)

Stated limits are for guidance only and i2 cannot be held responsible for any discrepencies with current legislation ** = MCERTS accredited

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

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The results included within the report relate only to the sample(s) submitted for testing.

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Waste Acceptance Criteria Analytical Results

Report No:	**23-16509**						
					Client:	**PORTWAY**	
Location	**Port St Manchester**						
Lab Reference (Sample Number)	2578744 / 2578745				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	06/02/2023				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	Silt - 1						
Depth (m)							
Solid Waste Analysis							
TOC (%)**	3.4				3%	5%	6%
Loss on Ignition (%) **	6.0				--	--	10%
BTEX (µg/kg) **	< 5.0				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	1100				500	--	--
Total PAH (WAC-17) (mg/kg)	75.8				100	--	--
pH (units)**	8.2				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	20				--	To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.0051			0.0348	0.5	2	25
Barium *	0.379			2.57	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	< 0.0004			< 0.0040	0.5	10	70
Copper *	0.017			0.11	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0367			0.249	0.5	10	30
Nickel *	0.0052			0.035	0.4	10	40
Lead *	0.0053			0.036	0.5	10	50
Antimony *	0.022			0.15	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.18			1.2	4	50	200
Chloride *	3.8			26	800	15000	25000
Fluoride*	0.39			2.6	10	150	500
Sulphate *	240			1600	1000	20000	50000
TDS*	440			3000	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	11.1			75.4	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	0.90						
Dry Matter (%)	71						
Moisture (%)	29						

Results are expressed on a dry weight basis, after correction for moisture content where applicable.

*= UKAS accredited (liquid eluate analysis only)

Stated limits are for guidance only and i2 cannot be held responsible for any discrepencies with current legislation

** = MCERTS accredited

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

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Analytical Report Number : 23-16509
Project / Site name: Port St Manchester

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2578742	Ash - 3	None Supplied	None Supplied	Brown sandy loam with gravel.
2578744	Silt - 1	None Supplied	None Supplied	Brown clay and sand.

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Analytical Report Number : 23-16509
Project / Site name: Port St Manchester

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
BS EN 12457-2 (10:1) Leachate Prep	10:1 (as recieved, moisture adjusted) end over end extraction with water for 24 hours. Eluate filtered prior to analysis.	In-house method based on BSEN12457-2.	L043-PL	W	NONE
Acid neutralisation capacity of soil	Determination of acid neutralisation capacity by addition of acid or alkali followed by electronic probe.	In-house method based on Guidance an Sampling and Testing of Wastes to Meet Landfill Waste Acceptance""	L046-PL	W	NONE
Loss on ignition of soil @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace.	In house method.	L047-PL	D	MCERTS
Mineral Oil (Soil) C10 - C40	Determination of mineral oil fraction extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L076-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Speciated WAC-17 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270.	L064-PL	D	MCERTS
PCB's By GC-MS in soil	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L027-PL	D	MCERTS
pH at 20oC in soil	Determination of pH in soil by addition of water followed by electrometric measurement.	In house method.	L005-PL	W	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
BTEX in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Total BTEX in soil (Poland)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073-PL	W	MCERTS
Metals in leachate by ICP-OES	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil""	L039-PL	W	ISO 17025
Chloride 10:1 WAC	Determination of Chloride colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260.	L082-PL	W	ISO 17025
Fluoride 10:1 WAC	Determination of fluoride in leachate by 1:1ratio with a buffer solution followed by Ion Selective Electrode.	In-house method based on Use of Total Ionic Strength Adjustment Buffer for Electrode Determination"	L033B-PL	W	ISO 17025
Sulphate 10:1 WAC	Determination of sulphate in leachate by ICP-OES	In-house method based on MEWAM 1986 Methods for the Determination of Metals in Soil""	L039-PL	W	ISO 17025
Total dissolved solids 10:1 WAC	Determination of total dissolved solids in water by EC probe using a factor of 0.6.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L031	W	ISO 17025

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Analytical Report Number : 23-16509
Project / Site name: Port St Manchester

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Monohydric phenols 10:1 WAC	Determination of phenols in leachate by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	ISO 17025
Dissolved organic carbon 10:1 WAC	Determination of dissolved inorganic carbon in leachate by TOC/DOC NDIR Analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037-PL	W	NONE

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

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Analytical Report Number : 23-16509

Project / Site name: Port St Manchester

This deviation report indicates the sample and test deviations that apply to the samples submitted for analysis.Please note that the associated result(s) may be unreliable and should be interpreted with care.

Key: a - No sampling date b - Incorrect container c - Holding time d - Headspace e - Temperature

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
Ash - 3	None Supplied	S	2578742	b	BTEX in soil (Monoaromatics)	L073B-PL	b
Ash - 3	None Supplied	S	2578742	b	Total BTEX in soil (Poland)	L073-PL	b
Silt - 1	None Supplied	S	2578744	b	BTEX in soil (Monoaromatics)	L073B-PL	b
Silt - 1	None Supplied	S	2578744	b	Total BTEX in soil (Poland)	L073-PL	b

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Analytical Report Number : 23-17602-2

Replaces Analytical Report Number: 23-17602-2, issue no. 1
Additional analysis undertaken.

Project / Site name:	Port Street	**Samples received on:**	14/02/2023
Your job number:		**Samples instructed on/ Analysis started on:**	14/02/2023
Your order number:	1.101.7.045	**Analysis completed by:**	01/03/2023
Report Issue Number:	2	**Report issued on:**	02/03/2023
Samples Analysed:	8 soil samples		

Signed [redacted]

Dominika Warjan
Junior Reporting Specialist
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

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Analytical Report Number: 23-17602-2
Project / Site name: Port Street
Your Order No: 1.101.7.045

Lab Sample Number				2585378	2585379	2585380	2585381	2585382
Sample Reference				SP1	SP2	SP3	SP5	SP6
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				13/02/2023	13/02/2023	13/02/2023	13/02/2023	13/02/2023
Time Taken				1535	1540	1610	1545	1550
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	26	17	18	18	23
Total mass of sample received	kg	0.001	NONE	0.5	0.5	0.5	0.5	0.8

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Chrysotile & Amosite	Chrysotile	Chrysotile	Chrysotile & Crocidolite	Chrysotile
Asbestos in Soil	Type	N/A	ISO 17025	Detected	Detected	Detected	Detected	Detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	< 0.001	< 0.001	< 0.001	0.002	< 0.001
Asbestos Quantification Total	%	0.001	ISO 17025	< 0.001	< 0.001	< 0.001	0.002	< 0.001
Asbestos Analyst ID	N/A	N/A	N/A	DSA	DSA	DSA	DSA	DSA

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	1	2.4	0.65	1.4	0.69
Acenaphthylene	mg/kg	0.05	MCERTS	0.3	< 0.05	< 0.05	0.37	0.22
Acenaphthene	mg/kg	0.05	MCERTS	3	5.7	2.6	3.6	1.8
Fluorene	mg/kg	0.05	MCERTS	2.8	7.2	2.8	3.6	2
Phenanthrene	mg/kg	0.05	MCERTS	10	67	10	19	6.3
Anthracene	mg/kg	0.05	MCERTS	3.7	12	3.6	6.2	2.3
Fluoranthene	mg/kg	0.05	MCERTS	50	79	27	33	24
Pyrene	mg/kg	0.05	MCERTS	44	81	24	31	22
Benzo(a)anthracene	mg/kg	0.05	MCERTS	15	29	10	15	8.2
Chrysene	mg/kg	0.05	MCERTS	12	25	7.8	11	6.6
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	10	22	8.2	12	5.6
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	4.1	25	2.6	3.6	2.8
Benzo(a)pyrene	mg/kg	0.05	MCERTS	8.3	14	7.2	11	5.4
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	4.5	4.9	3.3	4.8	2.4
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	1.3	1.7	< 0.05	< 0.05	0.83
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	5.3	6.4	4.3	6.2	3

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	176	382	115	161	94.1

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	66	22	42	33	61
Boron (water soluble)	mg/kg	0.2	MCERTS	1.1	0.9	1.3	1.1	0.9
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	3.7	1.4	2.3	1.8	2.9
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	33	30	47	29	36
Copper (aqua regia extractable)	mg/kg	1	MCERTS	290	73	230	150	280
Lead (aqua regia extractable)	mg/kg	1	MCERTS	500	250	480	320	490
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	1.4	0.6	1.7	0.8	1.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	44	32	38	35	46
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	1300	320	700	570	860

Monoaromatics & Oxygenates

Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

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Analytical Report Number: 23-17602-2
Project / Site name: Port Street
Your Order No: 1.101.7.045

Lab Sample Number				2585378	2585379	2585380	2585381	2585382
Sample Reference				SP1	SP2	SP3	SP5	SP6
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				13/02/2023	13/02/2023	13/02/2023	13/02/2023	13/02/2023
Time Taken				1535	1540	1610	1545	1550
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 $_{EH_CU_1D_AL}$	mg/kg	1	MCERTS	2.3	< 1.0	4.5	1.9	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 $_{EH_CU_1D_AL}$	mg/kg	2	MCERTS	20	13	75	16	6.3
TPH-CWG - Aliphatic >EC16 - EC21 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	100	35	160	45	40
TPH-CWG - Aliphatic >EC21 - EC35 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	1200	180	720	520	600
TPH-CWG - Aliphatic (EC5 - EC35) $_{EH_CU+HS_1D_AL}$	mg/kg	10	NONE	1300	230	960	580	640
TPH-CWG - Aromatic >EC5 - EC7 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 $_{EH_CU_1D_AR}$	mg/kg	1	MCERTS	1.5	2.5	3.3	2.8	1.7
TPH-CWG - Aromatic >EC12 - EC16 $_{EH_CU_1D_AR}$	mg/kg	2	MCERTS	29	40	59	29	16
TPH-CWG - Aromatic >EC16 - EC21 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	230	260	240	160	120
TPH-CWG - Aromatic >EC21 - EC35 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	670	320	570	440	450
TPH-CWG - Aromatic (EC5 - EC35) $_{EH_CU+HS_1D_AR}$	mg/kg	10	NONE	930	630	880	630	580

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

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Analytical Report Number: 23-17602-2
Project / Site name: Port Street
Your Order No: 1.101.7.045

Lab Sample Number				2585383	2585384	2585385
Sample Reference				SP7	SP8	SP10
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied
Date Sampled				13/02/2023	13/02/2023	13/02/2023
Time Taken				1555	1600	1605
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**			
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	28	28	31
Total mass of sample received	kg	0.001	NONE	0.5	0.8	0.5

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	Chrysotile	Chrysotile
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Detected	Detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	0.001	< 0.001
Asbestos Quantification Total	%	0.001	ISO 17025	-	0.001	< 0.001
Asbestos Analyst ID	N/A	N/A	N/A	DSA	DSA	DSA

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.82	1.5	3.1
Acenaphthylene	mg/kg	0.05	MCERTS	0.42	0.7	1.3
Acenaphthene	mg/kg	0.05	MCERTS	3	4.8	5.1
Fluorene	mg/kg	0.05	MCERTS	3.3	4.7	5.5
Phenanthrene	mg/kg	0.05	MCERTS	11	18	22
Anthracene	mg/kg	0.05	MCERTS	4.3	6.3	7.5
Fluoranthene	mg/kg	0.05	MCERTS	32	39	58
Pyrene	mg/kg	0.05	MCERTS	30	38	53
Benzo(a)anthracene	mg/kg	0.05	MCERTS	11	15	21
Chrysene	mg/kg	0.05	MCERTS	12	17	23
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	12	16	20
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	2.3	4.9	6.6
Benzo(a)pyrene	mg/kg	0.05	MCERTS	8.4	13	16
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	3.6	5.7	7.1
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	1	1.6	1.8
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	4.2	6.6	8.3

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	139	193	259

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	59	71	78
Boron (water soluble)	mg/kg	0.2	MCERTS	1.5	1.7	1.8
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	3	3.8	7.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	46	41	56
Copper (aqua regia extractable)	mg/kg	1	MCERTS	300	480	400
Lead (aqua regia extractable)	mg/kg	1	MCERTS	540	1100	710
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	2.1	6.5	2.4
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	46	48	46
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	870	1100	1500

Monoaromatics & Oxygenates

Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0

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The results included within the report relate only to the sample(s) submitted for testing.

Analytical Report Number: 23-17602-2
Project / Site name: Port Street
Your Order No: 1.101.7.045

Lab Sample Number				2585383	2585384	2585385
Sample Reference				SP7	SP8	SP10
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied
Date Sampled				13/02/2023	13/02/2023	13/02/2023
Time Taken				1555	1600	1605
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**			
Petroleum Hydrocarbons						
TPH-CWG - Aliphatic >EC5 - EC6 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 $_{EH_CU_1D_AL}$	mg/kg	1	MCERTS	3	9.9	4.2
TPH-CWG - Aliphatic >EC12 - EC16 $_{EH_CU_1D_AL}$	mg/kg	2	MCERTS	11	56	39
TPH-CWG - Aliphatic >EC16 - EC21 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	34	110	120
TPH-CWG - Aliphatic >EC21 - EC35 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	420	680	1400
TPH-CWG - Aliphatic (EC5 - EC35) $_{EH_CU+HS_1D_AL}$	mg/kg	10	NONE	470	860	1500
TPH-CWG - Aromatic >EC5 - EC7 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 $_{EH_CU_1D_AR}$	mg/kg	1	MCERTS	1.8	4.7	4
TPH-CWG - Aromatic >EC12 - EC16 $_{EH_CU_1D_AR}$	mg/kg	2	MCERTS	19	31	58
TPH-CWG - Aromatic >EC16 - EC21 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	110	140	460
TPH-CWG - Aromatic >EC21 - EC35 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	280	320	1000
TPH-CWG - Aromatic (EC5 - EC35) $_{EH_CU+HS_1D_AR}$	mg/kg	10	NONE	410	500	1500

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report relate only to the sample(s) submitted for testing.

Analytical Report Number: 23-17602
Project / Site name: Port Street
Your Order No: 1.101.7.045

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006-PL based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
2585378	SP1		173	Loose Fibres	**Chrysotile & Amosite**	< 0.001	**< 0.001**
2585379	SP2		143	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**
2585380	SP3		146	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**
2585381	SP5		160	Loose Fibres	**Chrysotile & Crocidolite**	0.002	**0.002**
2585382	SP6		177	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**
2585384	SP8		116	Loose Fibres	**Chrysotile**	0.001	**0.001**
2585385	SP10		118	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

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The results included within the report are representative of the samples submitted for analysis.

Analytical Report Number : 23-17602-2
Project / Site name: Port Street

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2585378	SP1	None Supplied	None Supplied	Brown clay and sand.
2585379	SP2	None Supplied	None Supplied	Brown clay and sand with gravel and vegetation.
2585380	SP3	None Supplied	None Supplied	Brown clay and loam with gravel.
2585381	SP5	None Supplied	None Supplied	Brown clay and loam with brick.
2585382	SP6	None Supplied	None Supplied	Brown clay and loam.
2585383	SP7	None Supplied	None Supplied	Brown clay and loam with gravel and brick.
2585384	SP8	None Supplied	None Supplied	Brown clay and loam with gravel.
2585385	SP10	None Supplied	None Supplied	Grey clay and sand.

Analytical Report Number : 23-17602-2
Project / Site name: Port Street

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073B-PL	W	MCERTS

Analytical Report Number : 23-17602-2
Project / Site name: Port Street

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references.	HSE Report No: 83/1996, HSG 248, HSG 264 & SCA Blue Book (draft).	A006-PL	D	ISO 17025

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

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Analytical Report Number : 23-23406

Project / Site name:	Port Street	**Samples received on:**	16/03/2023
Your job number:		**Samples instructed on/ Analysis started on:**	16/03/2023
Your order number:	1.101.7.069	**Analysis completed by:**	22/03/2023
Report Issue Number:	1	**Report issued on:**	22/03/2023
Samples Analysed:	1 soil sample		

[redacted]
Signed:

Joanna Wawrzeczko
Reporting Specialist
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

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The results included within the report relate only to the sample(s) submitted for testing.

Analytical Report Number: 23-23406
Project / Site name: Port Street

Lab Sample Number				2619856
Sample Reference				SP14
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				15/03/2023
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	27
Total mass of sample received	kg	0.001	NONE	0.4
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Chrysotile
Asbestos in Soil	Type	N/A	ISO 17025	Detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	< 0.001
Asbestos Quantification Total	%	0.001	ISO 17025	< 0.001
Asbestos Analyst ID	N/A	N/A	N/A	EC
General Inorganics				
pH - Automated	pH Units	N/A	MCERTS	9
Speciated PAHs				
Naphthalene	mg/kg	0.05	MCERTS	0.94
Acenaphthylene	mg/kg	0.05	MCERTS	0.34
Acenaphthene	mg/kg	0.05	MCERTS	2.3
Fluorene	mg/kg	0.05	MCERTS	2.7
Phenanthrene	mg/kg	0.05	MCERTS	11
Anthracene	mg/kg	0.05	MCERTS	3.6
Fluoranthene	mg/kg	0.05	MCERTS	31
Pyrene	mg/kg	0.05	MCERTS	28
Benzo(a)anthracene	mg/kg	0.05	MCERTS	9.7
Chrysene	mg/kg	0.05	MCERTS	9.3
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	9
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	3.1
Benzo(a)pyrene	mg/kg	0.05	MCERTS	7.8
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	3.3
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.87
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	3.6
Total PAH				
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	126
Heavy Metals / Metalloids				
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	56
Boron (water soluble)	mg/kg	0.2	MCERTS	< 0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	2.5
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	36
Copper (aqua regia extractable)	mg/kg	1	MCERTS	340
Lead (aqua regia extractable)	mg/kg	1	MCERTS	620
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	2.2
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	47
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	590
Monoaromatics & Oxygenates				
Benzene	µg/kg	5	MCERTS	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0
Petroleum Hydrocarbons				

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Analytical Report Number: 23-23406
Project / Site name: Port Street

Lab Sample Number				2619856
Sample Reference				SP14
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				15/03/2023
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
TPH-CWG - Aliphatic >EC5 - EC6 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 $_{EH_CU_1D_AL}$	mg/kg	1	MCERTS	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 $_{EH_CU_1D_AL}$	mg/kg	2	MCERTS	20
TPH-CWG - Aliphatic >EC16 - EC21 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	40
TPH-CWG - Aliphatic >EC21 - EC35 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	350
TPH-CWG - Aliphatic (EC5 - EC35) $_{EH_CU+HS_1D_AL}$	mg/kg	10	NONE	410
TPH-CWG - Aromatic >EC5 - EC7 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 $_{EH_CU_1D_AR}$	mg/kg	1	MCERTS	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 $_{EH_CU_1D_AR}$	mg/kg	2	MCERTS	29
TPH-CWG - Aromatic >EC16 - EC21 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	140
TPH-CWG - Aromatic >EC21 - EC35 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	230
TPH-CWG - Aromatic (EC5 - EC35) $_{EH_CU+HS_1D_AR}$	mg/kg	10	NONE	400

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

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The results included within the report relate only to the sample(s) submitted for testing.

Analytical Report Number: **23-23406**
Project / Site name: **Port Street**
Your Order No:

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006-PL based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
2619856	SP14		128	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

Analytical Report Number : 23-23406
Project / Site name: Port Street

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2619856	SP14	None Supplied	None Supplied	Brown clay and loam.

Analytical Report Number : 23-23406
Project / Site name: Port Street

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073B-PL	W	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references.	HSE Report No: 83/1996, HSG 248, HSG 264 & SCA Blue Book (draft).	A006-PL	D	ISO 17025
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

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The results included within the report relate only to the sample(s) submitted for testing.

Analytical Report Number : 23-23406
Project / Site name: Port Street

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

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The results included within the report relate only to the sample(s) submitted for testing.

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Analytical Report Number : 23-23408

Project / Site name:	Port Street	**Samples received on:**	16/03/2023
Your job number:		**Samples instructed on/ Analysis started on:**	16/03/2023
Your order number:	1.101.7.069	**Analysis completed by:**	22/03/2023
Report Issue Number:	1	**Report issued on:**	22/03/2023
Samples Analysed:	1 soil sample		

[redacted]
Signed:

Joanna Wawrzeczko
Reporting Specialist
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

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The results included within the report relate only to the sample(s) submitted for testing.

Analytical Report Number: 23-23408
Project / Site name: Port Street

Lab Sample Number				2619858
Sample Reference				SP15
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				15/03/2023
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	24
Total mass of sample received	kg	0.001	NONE	0.4
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Chrysotile
Asbestos in Soil	Type	N/A	ISO 17025	Detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	0.011
Asbestos Quantification Total	%	0.001	ISO 17025	0.011
Asbestos Analyst ID	N/A	N/A	N/A	SPU
General Inorganics				
pH - Automated	pH Units	N/A	MCERTS	9.6
Speciated PAHs				
Naphthalene	mg/kg	0.05	MCERTS	1.1
Acenaphthylene	mg/kg	0.05	MCERTS	0.3
Acenaphthene	mg/kg	0.05	MCERTS	2.1
Fluorene	mg/kg	0.05	MCERTS	2.3
Phenanthrene	mg/kg	0.05	MCERTS	10
Anthracene	mg/kg	0.05	MCERTS	3.1
Fluoranthene	mg/kg	0.05	MCERTS	21
Pyrene	mg/kg	0.05	MCERTS	19
Benzo(a)anthracene	mg/kg	0.05	MCERTS	7.5
Chrysene	mg/kg	0.05	MCERTS	6.6
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	6.6
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	3.1
Benzo(a)pyrene	mg/kg	0.05	MCERTS	6.2
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	2.7
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.74
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	3
Total PAH				
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	95.3
Heavy Metals / Metalloids				
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	38
Boron (water soluble)	mg/kg	0.2	MCERTS	0.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	31
Copper (aqua regia extractable)	mg/kg	1	MCERTS	240
Lead (aqua regia extractable)	mg/kg	1	MCERTS	460
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	40
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	470
Monoaromatics & Oxygenates				
Benzene	µg/kg	5	MCERTS	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0
Petroleum Hydrocarbons				

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Analytical Report Number: 23-23408
Project / Site name: Port Street

Lab Sample Number				2619858
Sample Reference				SP15
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				15/03/2023
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
TPH-CWG - Aliphatic >EC5 - EC6 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 $_{EH_CU_1D_AL}$	mg/kg	1	MCERTS	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 $_{EH_CU_1D_AL}$	mg/kg	2	MCERTS	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	54
TPH-CWG - Aliphatic (EC5 - EC35) $_{EH_CU+HS_1D_AL}$	mg/kg	10	NONE	63

TPH-CWG - Aromatic >EC5 - EC7 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 $_{EH_CU_1D_AR}$	mg/kg	1	MCERTS	2
TPH-CWG - Aromatic >EC12 - EC16 $_{EH_CU_1D_AR}$	mg/kg	2	MCERTS	14
TPH-CWG - Aromatic >EC16 - EC21 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	43
TPH-CWG - Aromatic >EC21 - EC35 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	90
TPH-CWG - Aromatic (EC5 - EC35) $_{EH_CU+HS_1D_AR}$	mg/kg	10	NONE	150

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report relate only to the sample(s) submitted for testing.

Analytical Report Number: **23-23408**
Project / Site name: **Port Street**
Your Order No:

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006-PL based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
2619858	SP15		101	Loose Fibrous Debris	**Chrysotile**	0.011	**0.011**

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

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The results included within the report relate only to the sample(s) submitted for testing.

Analytical Report Number : 23-23408
Project / Site name: Port Street

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2619858	SP15	None Supplied	None Supplied	Brown clay and loam.

Analytical Report Number : 23-23408
Project / Site name: Port Street

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073B-PL	W	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references.	HSE Report No: 83/1996, HSG 248, HSG 264 & SCA Blue Book (draft).	A006-PL	D	ISO 17025
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

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Analytical Report Number : 23-23408
Project / Site name: Port Street

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

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Analytical Report Number : 23-23413

Project / Site name:	Port Street	**Samples received on:**	16/03/2023
Your job number:		**Samples instructed on/ Analysis started on:**	16/03/2023
Your order number:	1.101.7.069	**Analysis completed by:**	22/03/2023
Report Issue Number:	1	**Report issued on:**	22/03/2023
Samples Analysed:	1 soil sample		

[redacted]

Signed:

Joanna Wawrzeczko
Reporting Specialist
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

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Analytical Report Number: 23-23413
Project / Site name: Port Street

Lab Sample Number				2619876
Sample Reference				SP16
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				15/03/2023
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	19
Total mass of sample received	kg	0.001	NONE	0.4
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Chrysotile
Asbestos in Soil	Type	N/A	ISO 17025	Detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	0.002
Asbestos Quantification Total	%	0.001	ISO 17025	0.002
Asbestos Analyst ID	N/A	N/A	N/A	SPU
General Inorganics				
pH - Automated	pH Units	N/A	MCERTS	8.6
Speciated PAHs				
Naphthalene	mg/kg	0.05	MCERTS	0.29
Acenaphthylene	mg/kg	0.05	MCERTS	0.15
Acenaphthene	mg/kg	0.05	MCERTS	0.54
Fluorene	mg/kg	0.05	MCERTS	0.67
Phenanthrene	mg/kg	0.05	MCERTS	3
Anthracene	mg/kg	0.05	MCERTS	0.85
Fluoranthene	mg/kg	0.05	MCERTS	8.1
Pyrene	mg/kg	0.05	MCERTS	7.2
Benzo(a)anthracene	mg/kg	0.05	MCERTS	2.5
Chrysene	mg/kg	0.05	MCERTS	2.6
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	2.2
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.84
Benzo(a)pyrene	mg/kg	0.05	MCERTS	2
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.93
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.25
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.98
Total PAH				
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	33
Heavy Metals / Metalloids				
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	21
Boron (water soluble)	mg/kg	0.2	MCERTS	1.1
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.9
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	30
Copper (aqua regia extractable)	mg/kg	1	MCERTS	88
Lead (aqua regia extractable)	mg/kg	1	MCERTS	130
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.7
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	35
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	260
Monoaromatics & Oxygenates				
Benzene	µg/kg	5	MCERTS	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0
Petroleum Hydrocarbons				

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Analytical Report Number: 23-23413
Project / Site name: Port Street

Lab Sample Number				2619876
Sample Reference				SP16
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				15/03/2023
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
TPH-CWG - Aliphatic >EC5 - EC6 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 $_{EH_CU_1D_AL}$	mg/kg	1	MCERTS	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 $_{EH_CU_1D_AL}$	mg/kg	2	MCERTS	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	38
TPH-CWG - Aliphatic (EC5 - EC35) $_{EH_CU+HS_1D_AL}$	mg/kg	10	NONE	43
TPH-CWG - Aromatic >EC5 - EC7 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 $_{EH_CU_1D_AR}$	mg/kg	1	MCERTS	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 $_{EH_CU_1D_AR}$	mg/kg	2	MCERTS	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	11
TPH-CWG - Aromatic >EC21 - EC35 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	26
TPH-CWG - Aromatic (EC5 - EC35) $_{EH_CU+HS_1D_AR}$	mg/kg	10	NONE	37

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

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Analytical Report Number: **23-23413**
Project / Site name: **Port Street**
Your Order No:

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006-PL based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
2619876	SP16		103	Loose Fibres	**Chrysotile**	0.002	**0.002**

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

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Analytical Report Number : 23-23413
Project / Site name: Port Street

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2619876	SP16	None Supplied	None Supplied	Brown clay.

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The results included within the report relate only to the sample(s) submitted for testing.

Analytical Report Number : 23-23413
Project / Site name: Port Street

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073B-PL	W	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references.	HSE Report No: 83/1996, HSG 248, HSG 264 & SCA Blue Book (draft).	A006-PL	D	ISO 17025
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

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The results included within the report relate only to the sample(s) submitted for testing.

Analytical Report Number : 23-23413
Project / Site name: Port Street

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report relate only to the sample(s) submitted for testing.

APPENDIX C - WASTE NOTES

Duty of care: waste transfer note

Keep this page and copy it for future use. Please write as clearly as possible.

Section A – Description of waste

A1 Description of the waste being transferred

Contaminated Water

List of Waste Regulations code(s)

161002

A2 How is the waste contained?

Loose ☐ Sacks ☐ Skip ☐ Drum ☐

Other ☑ Bulk Tanker

A3 How much waste? For example, number of sacks, weight

Section B – Current holder of the waste – Transferor

By signing in Section D below I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011 Yes ☐

[redacted]

Company name and address

Portway Plant
Rencher Building site
Tariff Street

Postcode M1 2FJ SIC code (2007) 82.99/0

B2 Name of your unitary authority or council

B3 Are you:

The producer of the waste? ☑

The importer of the waste? ☐

The local authority? ☐

The holder of an environmental permit? ☐

Permit number

Issued by

Registered waste exemption? ☐

Details, including registration number

A registered waste carrier, broker or dealer? ☐

Registration number

Details (are you a carrier, broker or dealer?)

Section C – Person collecting the waste – Transferee

[redacted]

Company name and address

Recet Ind Services Ltd
Unit 2 Laches Close
Four Ashes
Wolverhampton

Postcode WV10 7DZ

C2 Are you:

The local authority? ☐

C3 Are you:

The holder of an environmental permit? ☐

Permit number

Issued by

Registered waste exemption? ☐

Details, including registration number

A registered waste carrier, broker or dealer? ☐

Registration number CBDU420127

Details (are you a carrier, broker or dealer?)

Section D – The transfer

D1 Address of transfer or collection point

As in Section 'B' above

Postcode

Date of transfer (DD/MM/YYYY) 14 2 23

D2 Broker or dealer who arranged this transfer (if applicable)

Postcode

Registration number SD16 BBL

Time(s)

Transferor's signature

Name

Representing

Transferee's signature

Name

Representing

REACT INDUSTRIAL SERVICES LTD

T: 07572 1633421 | 07534 446231
E: info@reactindustrial.co.uk

REGISTERED WASTE CARRIER

- Tanker Services • Site Services/Industrial Cleaning
- Tank/Vessel Cleaning • High Pressure Water Jetting
- Total Waste Management • 24/7 Emergency Response

Customer Name & Address:
Portway Plant
Rencher Building Site
Tariff Street
M1 2FJ

Contact:

Date:

J.P. ☐ H.R. ☐ D.R. ☐

Ticket No: 1547

Date	Day	On Site	Off Site	Travelling
	M			
	T			
16 2 23	W	1400	1500	3
	T			
	F			
	S			
	S			

WHITE - CUSTOMER PINK - ACCOUNTS YELLOW - FILE

Work Description:
Empty Pit

Work completed satisfactorily

Supervisor Signature [redacted]

Print Name [redacted]

Customers Signature [redacted]

Print Name [redacted]

Form HWCN01v112

The Hazardous Waste Regulations 2005: Consignment Note

Booking Ref **DW2234534**

Environment Agency

PRODUCER'S/HOLDER'S/CONSIGNOR'S COPY

PART A Notification details

1 Consignment note code: PORTST/00005

2 The waste described below is to be removed from (name, address, postcode, telephone, e-mail, facsimile):

Port Street,
Ancoats,
Manchester,
M1 2EG.

3 The waste will be taken to (name, address and postcode):

Maw Green Soil Landfill site,
Maw Green Road, Crewe,
CW1 5NG

4 The waste producer was (if different from 2) (name, address, postcode, telephone, e-mail, facsimile):

Renaker, 1st Floor NQ Building, 47 Bengal Street, Ancoats, Manchester, M4 6BB.

PART B Description of the waste

If continuation sheet used, tick here ☐

1 The process giving rise to the waste(s) was: Excavation

2 SIC (2007) for the process giving rise to the waste: 41.20/1

3 WASTE DETAILS (where more than one waste type is collected all of the information given below must be completed for each EWC identified)

Description of waste	List of wastes (EWC code)(6 digits)	Quantity (kg)	The chemical/biological components in the waste and their concentrations are: Component	Concentration (% or mg/kg)	Physical form (gas, liquid, solid, powder, sludge or mixed)	Hazard code(s)	Container type, number and size
Soil and stones containing hazardous substances	170503*	20,000	TPH	>0.1%	Solid	HP7 & HP11	8W

The information given below is to be completed for each EWC identified

EWC code	UN identification number(s)	Proper shipping name(s)	UN class(es)	Packing group(s)	Special handling requirements
170503*	N/A	N/A	N/A	N/A	Standard PPE

PART C Carrier's certificate

(If more than one carrier is used, please attach schedule for subsequent carriers. If schedule of carriers is attached tick here. ☐)

I certify that I today collected the consignment and that the details in A2, A3 and B3 are correct and I have been advised of any specific handling requirements.

Where this note comprises part of a multiple collection the round number and collection number are:

/

1 Carrier name: J.O'SHEA AND SONS LTD

On behalf of (name, address, postcode, telephone, e-mail, facsimile):

Orchard Street, Pendleton,
Salford, M6 6FL

2 Carrier registration no./reason for exemption:

CBDU 90839

3 Vehicle registration no. (or mode of transport, if not road): [redacted]

Signature [redacted]

Date 03042023 Time 0800

PART D Consignor's certificate

I certify that the information in A, B and C has been completed and is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste is packaged and labelled correctly and the carrier has been advised of any special handling requirements.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.

1 Consignor name: Renaker

On behalf of (name, address, postcode, telephone, e-mail, facsimile):

1st Floor NQ Building,
47 Bengal Street,
Ancoats, Manchester, M4 6BB.

Signature [redacted]

Date 03042023 Time 0800

PART E Consignee's certificate (where more than one waste type is collected all of the information given below must be completed for each EWC)

Individual EWC code(s) received	Quantity of each EWC code received (kg)	EWC code accepted/rejected	Waste management operation (R or D code)
170503	18860	ACL	R05

1 I received this waste at the address given in A3 on: Date 03042023 Time 0915

2 Vehicle registration no. (or mode of transport if not road): [redacted]

3 Where waste is rejected please provide details:

I certify that waste permit/exempt waste operation number:

BS7722ID

authorises the management of the waste described in B at the address given in A3.

Where the consignment forms part of a multiple collection, as identified in Part C, I certify that the total number of consignments forming the collection are:

Name: [redacted]

On behalf of (name, address, postcode, telephone, e-mail, facsimile):

Provectus Soils Management
Maw Green Soil Treatment Centre
Maw Green Road
Crewe CW1 5NG

Signature [redacted]

Date 03042023 Time 0915

Form HWCN01v112

The Hazardous Waste Regulations 2005: Consignment Note

Booking Ref **DW2234534**

Environment Agency

CONSIGNEE'S COPY

PART A Notification details

1 Consignment note code: PORTST/00006

2 The waste described below is to be removed from (name, address, postcode, telephone, e-mail, facsimile):

Port Street,
Ancoats,
Manchester,
M1 2EG.

3 The waste will be taken to (name, address and postcode):

Maw Green Soil Landfill site,
Maw Green Road, Crewe,
CW1 5NG

4 The waste producer was (if different from 2) (name, address, postcode, telephone, e-mail, facsimile):

Renaker, 1st Floor NQ Building, 47 Bengal Street, Ancoats, Manchester, M4 6BB.

PART B Description of the waste

If continuation sheet used, tick here ☐

1 The process giving rise to the waste(s) was: Excavation

2 SIC (2007) for the process giving rise to the waste: 41.20/1

3 WASTE DETAILS (where more than one waste type is collected all of the information given below must be completed for each EWC identified)

Description of waste	List of wastes (EWC code)(6 digits)	Quantity (kg)	The chemical/biological components in the waste and their concentrations are:		Physical form (gas, liquid, solid, powder, sludge or mixed)	Hazard code(s)	Container type, number and size
			Component	Concentration (% or mg/kg)			
Soil and stones containing hazardous substances	170503*	20,000	TPH	>0.1%	Solid	HP7 & HP11	8W

The information given below is to be completed for each EWC identified

EWC code	UN identification number(s)	Proper shipping name(s)	UN class(es)	Packing group(s)	Special handling requirements
170503*	N/A	N/A	N/A	N/A	Standard PPE

PART C Carrier's certificate

(If more than one carrier is used, please attach schedule for subsequent carriers. If schedule of carriers is attached tick here. ☐)

I certify that I today collected the consignment and that the details in A2, A3 and B3 are correct and I have been advised of any specific handling requirements.

Where this note comprises part of a multiple collection the round number and collection number are: /

1 Carrier name: J.O'SHEA AND SONS LTD

On behalf of (name, address, postcode, telephone, e-mail, facsimile):

Orchard Street, Pendleton,
Salford, M6 6FL

2 Carrier registration no./reason for exemption:

CBDU 90839

3 Vehicle registration no. (or mode of transport, if not road) [redacted]

Signature [redacted]

Date 03042023 Time 0730

PART D Consignor's certificate

I certify that the information in A, B and C has been completed and is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste is packaged and labelled correctly and the carrier has been advised of any special handling requirements.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.

1 Consignor name: Renaker

On behalf of (name, address, postcode, telephone, e-mail, facsimile):

1st Floor NQ Building,
47 Bengal Street,
Ancoats, Manchester, M4 6BB.

Signature [redacted]

Date 03042023 Time 0730

PART E Consignee's certificate (where more than one waste type is collected all of the information given below must be completed for each EWC)

Individual EWC code(s) received	Quantity of each EWC code received (kg)	EWC code accepted/rejected	Waste management operation (R or D code)
170503	17.18	ACC	R05

1 I received this waste at the address given in A3 on: Date 03042023 Time 0920

2 Vehicle registration no. (or mode of transport if not road): [redacted]

3 Where waste is rejected please provide details:

I certify that waste permit/exempt waste operation number: BS7722ID

authorises the management of the waste described in B at the address given in A3.

Where the consignment forms part of a multiple collection, as identified in Part C, I certify that the total number of consignments forming the collection are:

Name: [redacted]

On behalf of (name, address, postcode, telephone, e-mail, facsimile):

Brovectus Soils Management
Maw Green Soil Treatment Centre
Maw Green Road
Crewe CW1 5NG

Signature [redacted]

Date 03042023 Time 0920

Form HWCN01v112

The Hazardous Waste Regulations 2005: Consignment Note

Booking Ref **DW2234534**

Environment Agency

PRODUCER'S/HOLDER'S/CONSIGNOR'S COPY

PART A Notification details

1 Consignment note code: PORTST/00007

2 The waste described below is to be removed from (name, address, postcode, telephone, e-mail, facsimile):

Port Street,
Ancoats,
Manchester,
M1 2EG.

3 The waste will be taken to (name, address and postcode):

Maw Green Soil Landfill site,
Maw Green Road, Crewe,
CW1 5NG

4 The waste producer was (if different from 2) (name, address, postcode, telephone, e-mail, facsimile):

Renaker, 1st Floor NQ Building, 47 Bengal Street, Ancoats, Manchester, M4 6BB.

PART B Description of the waste

If continuation sheet used, tick here ☐

1 The process giving rise to the waste(s) was: Excavation

2 SIC (2007) for the process giving rise to the waste: 41.20/1

3 WASTE DETAILS (where more than one waste type is collected all of the information given below must be completed for each EWC identified)

Description of waste	List of wastes (EWC code)(6 digits)	Quantity (kg)	The chemical/biological components in the waste and their concentrations are:		Physical form (gas, liquid, solid, powder, sludge or mixed)	Hazard code(s)	Container type, number and size
			Component	Concentration (% or mg/kg)			
Soil and stones containing hazardous substances	170503*	20,000	TPH	>0.1%	Solid	HP7 & HP11	8W

The information given below is to be completed for each EWC identified

EWC code	UN identification number(s)	Proper shipping name(s)	UN class(es)	Packing group(s)	Special handling requirements
170503*	N/A	N/A	N/A	N/A	Standard PPE

PART C Carrier's certificate

(If more than one carrier is used, please attach schedule for subsequent carriers. If schedule of carriers is attached tick here. ☐)

I certify that I today collected the consignment and that the details in A2, A3 and B3 are correct and I have been advised of any specific handling requirements.

Where this note comprises part of a multiple collection the round number and collection number are: /

1 Carrier name: J.O'SHEA AND SONS LTD

On behalf of (name, address, postcode, telephone, e-mail, facsimile):

Orchard Street, Pendleton,
Salford, M6 6FL

2 Carrier registration no./reason for exemption:
CBDU 90839

3 Vehicle registration no. (or mode of transport, if not road): [redacted]

Signature [redacted]

Date 04042023 Time 0730

PART D Consignor's certificate

I certify that the information in A, B and C has been completed and is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste is packaged and labelled correctly and the carrier has been advised of any special handling requirements.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.

1 Consignor name: Renaker

On behalf of (name, address, postcode, telephone, e-mail, facsimile):

1st Floor NQ Building,
47 Bengal Street,
Ancoats, Manchester, M4 6BB.

Signature [redacted]

Date 04042023 Time 0730

PART E Consignee's certificate (where more than one waste type is collected all of the information given below must be completed for each EWC)

Individual EWC code(s) received	Quantity of each EWC code received (kg)	EWC code accepted/rejected	Waste management operation (R or D code)
170503	19040	ACC	R05

1 I received this waste at the address given in A3 on: Date 04042023 Time 0925

2 Vehicle registration no. (or mode of transport if not road): MV70 WZH

Name: [redacted]

On behalf of (name, address, postcode, telephone, e-mail, facsimile): Provectus Soils Management
Maw Green Soil Treatment Centre
Maw Green Road
Crewe CW1 5NG

3 Where waste is rejected please provide details:

I certify that waste permit/exempt waste operation number: BS7722ID

authorises the management of the waste described in B at the address given in A3.

Where the consignment forms part of a multiple collection, as identified in Part C, I certify that the total number of consignments forming the collection are:

Signature [redacted]

Date 04042023 Time 0925

Form HWCN01v112

The Hazardous Waste Regulations 2005: Consignment Note

Booking Ref : WML-O2736

Environment Agency

PRODUCER'S/HOLDER'S/CONSIGNOR'S COPY

PART A Notification details

1 Consignment note code: PORTST/00008

2 The waste described below is to be removed from (name, address, postcode, telephone, e-mail, facsimile):

Port Street,
Ancoats,
Manchester,
M1 2EG.

3 The waste will be taken to (name, address and postcode):

Whitemoss Landfill Ltd,
Whitemoss Road South,
Skelmersdale, WN8 9TH

4 The waste producer was (if different from 2) (name, address, postcode, telephone, e-mail, facsimile):

Renaker, 1st Floor NQ Building, 47 Bengal Street, Ancoats, Manchester, M4 6BB.

PART B Description of the waste

If continuation sheet used, tick here ☐

1 The process giving rise to the waste(s) was: Excavation

2 SIC (2007) for the process giving rise to the waste: 41.20/1

3 WASTE DETAILS (where more than one waste type is collected all of the information given below must be completed for each EWC identified)

Description of waste	List of wastes (EWC code)(6 digits)	Quantity (kg)	The chemical/biological components in the waste and their concentrations are:		Physical form (gas, liquid, solid, powder, sludge or mixed)	Hazard code(s)	Container type, number and size
			Component	Concentration (% or mg/kg)			
Concrete contaminated with bonded Asbestos sheeting	170605*	19,000	Asbestos		Solid	HP7&HP5	8W

The information given below is to be completed for each EWC identified

EWC code	UN identification number(s)	Proper shipping name(s)	UN class(es)	Packing group(s)	Special handling requirements
170605*	N/A	N/A	N/A	N/A	Goggles, gloves, Hi Viz and disposable overalls

PART C Carrier's certificate

(If more than one carrier is used, please attach schedule for subsequent carriers. If schedule of carriers is attached tick here. ☐)

I certify that I today collected the consignment and that the details in A2, A3 and B3 are correct and I have been advised of any specific handling requirements.

Where this note comprises part of a multiple collection the round number and collection number are:

/

1 Carrier name: J.O'SHEA AND SONS LTD

On behalf of (name, address, postcode, telephone, e-mail, facsimile):

Orchard Street, Pendleton,
Salford, M6 6FL

2 Carrier registration no./reason for exemption:

CBDU 90839

3 Vehicle registration no. (or mode of transport, if not road): [redacted]

Signature [redacted]

Date 18042023 Time 1152

PART D Consignor's certificate

I certify that the information in A, B and C has been completed and is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste is packaged and labelled correctly and the carrier has been advised of any special handling requirements.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.

1 Consignor name: Renaker

On behalf of (name, address, postcode, telephone, e-mail, facsimile):

1st Floor NQ Building,
47 Bengal Street,
Ancoats, Manchester, M4 6BB.

Signature [redacted]

Date 18042023 Time 1152

PART E Consignee's certificate (where more than one waste type is collected all of the information given below must be completed for each EWC)

Individual EWC code(s) received	Quantity of each EWC code received (kg)	EWC code accepted/rejected	Waste management operation (R or D code)
170605	16780KG	✓	D05

1 I received this waste at the address given in A3 on: Date 18042023 Time 1242

2 Vehicle registration no. (or mode of transport if not road):

3 Where waste is rejected please provide details: [redacted]

Name: [redacted]

On behalf of (name, address, postcode, telephone, e-mail, facsimile): Veolia Whitemoss
Whitemoss Landfill
Skelmersdale, WN8 9TH
Permit No. DP3034YR

I certify that waste permit/exempt waste operation number:

DP3034YR

authorises the management of the waste described in B at the address given in A3.

Where the consignment forms part of a multiple collection, as identified in Part C, I certify that the total number of consignments forming the collection are:

Signature [redacted]

Date 8.04.2023 Time 1308