Appendix C

Unit 15
Melbourne Business Park
Model Farm Road
Cork T12 WR89

T: 021 434 5366
E:admin@ocallaghanmoran.com
www.ocallaghanmoran.com

Waste Characterisation Assessment

Blandchardstown Town Centre

Blanchardstown

County Dublin

Prepared For: -

IGSL Limited
Unit F
M7 Business Park
Naas
County Kildare

Prepared By: -

O' Callaghan Moran & Associates
Unit 15 Melbourne Business Park
Model Farm Road
Cork

September 2021

Project	Waste Characterisation: Blandchardstown Town Centre, Co. Dublin			
Client	IGSL Limited			
Report No	Date	Status	Prepared By	Reviewed By
210012301	08/09/2021	Final	Austin Hynes MSc	Sean Moran B.Sc. MSc

TABLE OF CONTENTS

APPENDICES

1 INTRODUCTION

IGSL Limited requested O'Callaghan Moran & Associates (OCM) to undertake a waste characterisation assessment of samples of made ground and natural soils collected from twenty-two (22 No.) trial pit/window sample boreholes installed at the site of a proposed development in Blanchardstown, County Dublin.

1.1 Methodology

IGSL provided a description of the ground conditions and collected samples of the soils from the trial pit locations. The samples were analysed at an accredited laboratory and the results formed the basis for a waste classification assessment, which was undertaken by OCM in accordance with the Environmental Protection Agency (EPA) Guidelines on the Classification of Waste (2015).

2 WASTE CLASSIFICATION ASSESSMENT

2.1 Soil Sampling and Laboratory Analysis

2.1.1 *Site Investigation*

The site investigation was completed by IGSL Limited in May 2021 and included the collection of forty-four composite samples from twenty-two (22 No.) window sample boreholes. The locations are shown on Figure 2.1. An inspection trial pit was excavated at each window sample location to circa 1.20 metres below ground level (mbgl), the numbers of which correlate directly. The logs are in Appendix 1.

There is tarmacadam underlain by GRAVEL (Clause 804) at the surface of all locations The logs indicate that the subsurface comprises MADE GROUND underlain by Natural Ground.. The MADE GROUND comprises soft to firm, slightly sandy gravelly SILT/CLAY to circa 1.20 mbgl. Made Ground was encountered to a depth of 1.60 mbgl in WS20. This is underlain by Natural Ground composed of firm to stiff, brown, slightly sandy gravelly CLAY. Dense to very dense, slightly silty GRAVEL with cobble content was encountered below 1.20 mbgl at WS02 and WS21, and below 1.50 mbgl at WS06. Medium dense, clayey sandy GRAVEL was encountered below 1.60 mbgl at WS15.

The Made Ground TP/WS05 and TP/WS20 contains occasional man-made material including red brick and plastic making up <2% of the soil matrix.

2.1.2 *Sample Collection*

IGSL collected the samples and placed them in laboratory prepared containers that were stored in coolers prior to shipment to Chemtest Ltd.

2.1.3 *Laboratory Analysis*

The samples were tested for, metals (arsenic, barium, cadmium, chromium, copper, mercury, molybdenum, nickel, lead, antimony, selenium and zinc, total organic carbon (TOC), BTEX (benzene, toluene, ethylbenzene and xylene) aliphatic and aromatic hydrocarbons, polychlorinated biphenyls (PCB), mineral oil, polyaromatic hydrocarbons (PAH) and asbestos. Leachate generated from the samples was tested for arsenic, barium, cadmium, chromium, copper, mercury, molybdenum, nickel, lead, antimony, selenium and zinc, chloride, fluoride, soluble sulphate, phenols, dissolved organic carbon (DOC), total dissolved solids (TDS).

This parameter range facilitates an assessment of the hazardous properties of the waste, and also allows a determination of appropriate off-site management options based on the Waste Acceptance Criteria (WAC) applied by landfill operators.

The analytical methods were all ISO/CEN approved and the method detection limits were below the relevant guidance/threshold values. The full laboratory report is in Appendix 2.

2.2 Waste Classification

The Haz Waste Online Classification Engine, developed in the UK by One Touch Data Ltd, was used to determine the waste classification. This tool was developed specifically to establish whether waste is non-hazardous or hazardous and has been approved for use in Ireland by the Environmental Protection Agency. The full Waste Classification Report is in Appendix 3 and the results are summarised in Table 2.1.

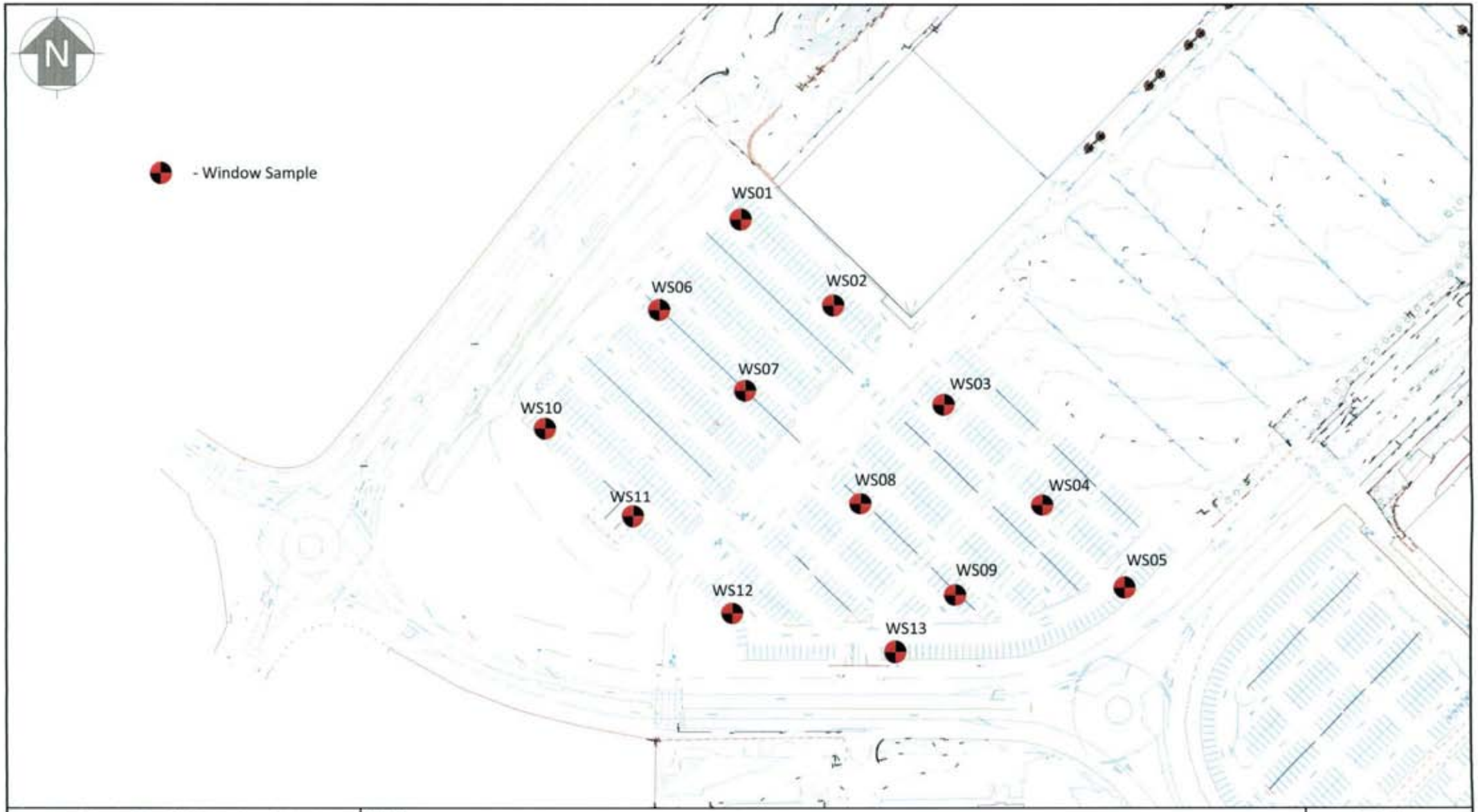
Table 2.1 Waste Classification

Sample No.	Depth	Classification	LoW Code	Sample No.	Depth	Classification	LoW Code
WS01 (1-1)	0.5-1.0	Non-Hazardous	17 05 04	WS12 (12-1)	0.0-1.0	Non-Hazardous	17 05 04
WS01 (1-2)	1.0-2.0	Non-Hazardous	17 05 04	WS12	1.4	Non-Hazardous	17 05 04
WS02 (2-1)	0.0-1.0	Non-Hazardous	17 05 04	WS13 (13-1)	0.0-1.0	Non-Hazardous	17 05 04
WS02 (2-2)	1.0-2.0	Non-Hazardous	17 05 04	WS13	1.0-1.5	Non-Hazardous	17 05 04
WS03 (3-1)	0.0-1.0	Non-Hazardous	17 05 04	WS14	1.0-1.6	Non-Hazardous	17 05 04
WS3	1.50	Non-Hazardous	17 05 04	WS15	1.0-2.0	Non-Hazardous	17 05 04
WS04 (4-1)	0.0-1.0	Non-Hazardous	17 05 04	WS 16	1.0-1.5	Non-Hazardous	17 05 04
WS4	1.80	Non-Hazardous	17 05 04	WS 17	0.7-1.4	Non-Hazardous	17 05 04
WS05 (5-1)	0.0-1.0	Non-Hazardous	17 05 04	WS18	1.0-2.0	Non-Hazardous	17 05 04
WS5	1.8	Non-Hazardous	17 05 04	WS 19	1.0-2.0	Non-Hazardous	17 05 04
WS06 (6-1)	0.0-1.0	Non-Hazardous	17 05 04	WS 20	1.0-1.6	Non-Hazardous	17 05 04
WS06 (6-2)	1.0-2.0	Non-Hazardous	17 05 04	WS 21	1.0-1.6	Non-Hazardous	17 05 04
WS07 (7-1)	0.0-1.0	Non-Hazardous	17 05 04	WS22	1.0-1.5	Non-Hazardous	17 05 04
WS07 (7-2)	1.0-2.0	Non-Hazardous	17 05 04	TP14	0.5-1.0	Non-Hazardous	17 05 04
WS08 (8-1)	0.0-1.0	Non-Hazardous	17 05 04	TP15	0.5-1.0	Non-Hazardous	17 05 04
WS8	1.10	Non-Hazardous	17 05 04	TP16	0.6-1.0	Non-Hazardous	17 05 04
WS09 (9-1)	0.0-1.0	Non-Hazardous	17 05 04	TP17	0.5-1.0	Non-Hazardous	17 05 04
WS9	2.00	Non-Hazardous	17 05 04	TP18	0.5-1.0	Non-Hazardous	17 05 04
WS10 (10-1)	0.6-1.0	Non-Hazardous	17 05 04	TP19	0.5-1.0	Non-Hazardous	17 05 04
WS10 (10-2)	1.0-2.0	Non-Hazardous	17 05 04	TP20	0.5-1.0	Non-Hazardous	17 05 04
WS11 (11-1)	0.0-1.0	Non-Hazardous	17 05 04	TP21	0.6-1.0	Non-Hazardous	17 05 04
WS11 (11-2)	1.0-2.0	Non-Hazardous	17 05 04	TP22	0.6-1.0	Non-Hazardous	17 05 04

Asbestos was not detected in any of the samples.

All samples are classified as non-hazardous and the appropriate List of Waste Code is 17 05 04 (Soil and Stone other than those mentioned in 17 05 03*). The samples from WS17 (0.7-1.4m)

and WS22 (1.0-1.5m) contain elevated levels of TPH. A hydrocarbon interpretation conducted by the laboratory indicated the presence of Diesel at non-hazardous concentrations.



O' Callaghan Moran & Associates.
Unit 15 Melbourne Business Park
Model Farm Road, Cork, Ireland.
Tel. (021) 4345366
email: info@ocallaghanmoran.com

CLIENT: IGSL Limited

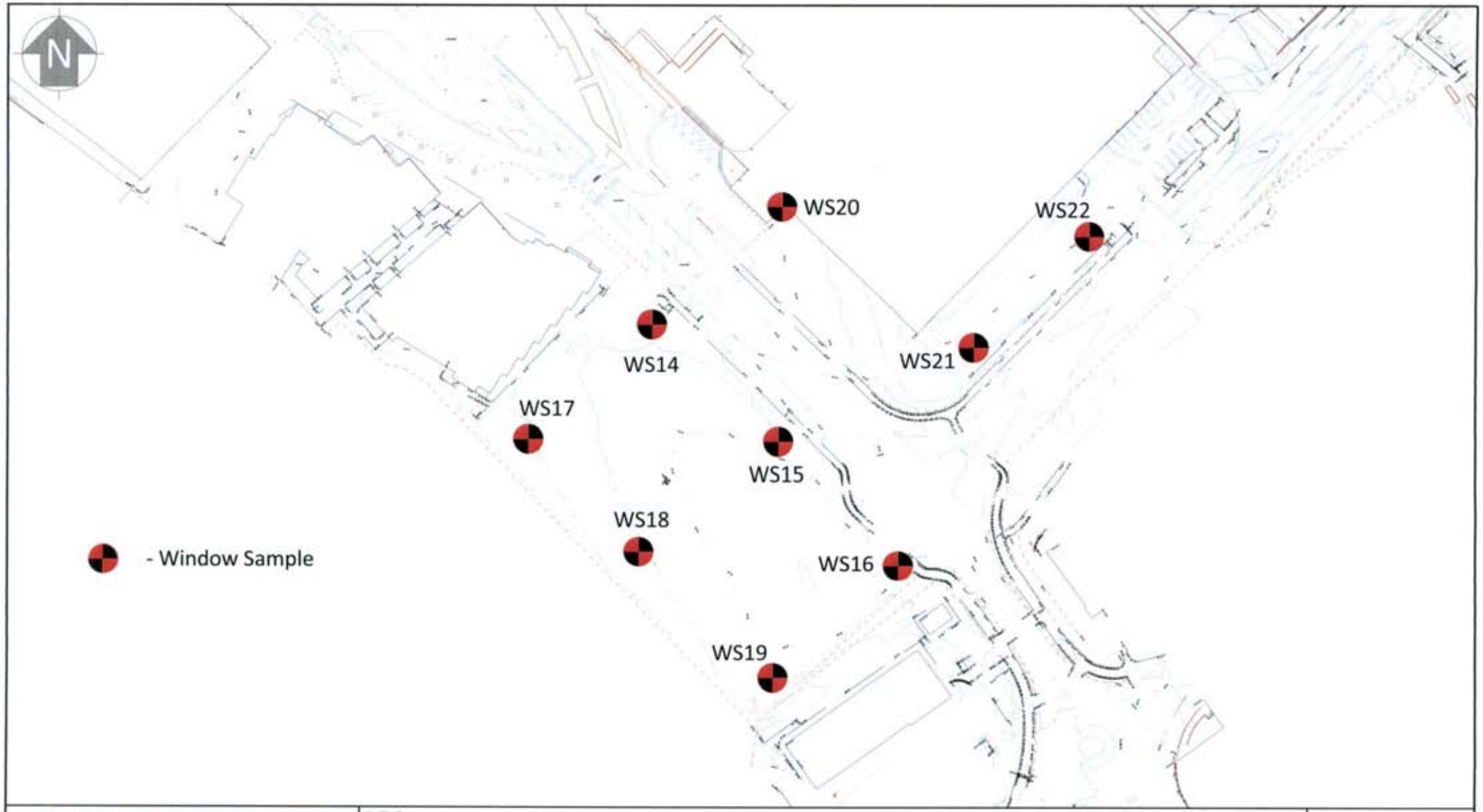
TITLE: Excavation Plan (WS01–WS13)

FIGURE No. 2.1a

SCALE

SCALE

REV. A



O' Callaghan Moran & Associates
Unit 15 Melbourne Business Park
Model Farm Road, Cork, Ireland
Tel. (021) 4345366
email: info@ocallaghanmoran.com

CLIENT: IGSL Limited

TITLE: Excavation Plan (WS14–WS22)

FIGURE No. 2.1b

SCALE

SCALE

REV. A

2.3 Waste Acceptance Criteria

The results of the WAC testing are presented in Table 2.2, which includes for comparative purposes the WAC for Inert, Non Hazardous and Hazardous Waste Landfills pursuant to Article 16 of the EU Landfill Directive 1999/31/EC Annex II which establishes criteria and procedures for the acceptance of waste at landfills.

Molybdenum exceeds the inert landfill WAC in WS5 (0.0-1.0m), WS12 (1.4m) and TP14 (0.5-1.0m). Dissolved Organic Carbon exceeds the inert landfill WAC increased limits in TP16 and TP17. Mineral Oil exceeds the inert WAC increased limits in WS17 (0.7-1.4m) and WS22 (1.0-1.5m). All other samples meet the inert landfill WAC.

Table 2.2 WAC Results

Parameter	Unit	WS01 (1-1)	WS01 (1-2)	WS02 (2-1)	WS02 (2-2)	WS03 (3-1)	WS3	WS04 (4-1)	WS4	WS05 (5-1)	WS5	WS06 (6-1)	Inert Landfill	Inert Landfill Increased Limits	Non-Hazardous Landfill	Hazardous Landfill
Depth	m	0.5-1.0	1.0-2.0	0.0-1.0	1.0-2.0	0.0-1.0	1.50	0.0-1.0	1.80	0.0-1.0	1.8	0.0-1.0				
Antimony	mg/kg	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.06	0.18	0.7	5
Arsenic	mg/kg	< 0.0002	0.0033	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.0026	< 0.0002	0.0081	< 0.0002	< 0.0002	0.5	1.5	2	25
Barium	mg/kg	< 0.0005	< 0.0005	< 0.0005	0.21	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.095	< 0.0005	< 0.0005	20	20	100	300
Cadmium	mg/kg	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.04	0.04	1	5
Chromium	mg/kg	0.096	0.11	0.095	0.089	0.099	< 0.0005	0.10	0.0064	0.10	0.0055	0.11	0.5	0.5	10	70
Copper	mg/kg	0.0063	0.018	0.024	0.010	0.0075	0.0053	0.0096	0.0064	0.016	0.0061	0.0081	2	2	50	100
Lead	mg/kg	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.5	0.5	10	50
Molybdenum	mg/kg	0.030	0.0060	0.0044	0.082	0.044	0.12	0.022	0.078	0.019	0.63	0.020	0.5	1.5	10	30
Nickel	mg/kg	0.040	0.048	0.042	0.040	0.041	< 0.0005	0.045	< 0.0005	0.042	< 0.0005	0.044	0.4	0.4	10	40
Selenium	mg/kg	< 0.0005	< 0.0005	< 0.0005	0.024	0.0070	0.0083	< 0.0005	< 0.0005	0.0060	0.028	< 0.0005	0.1	0.3	0.5	7
Zinc	mg/kg	< 0.003	< 0.003	< 0.003	0.037	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	0.24	< 0.003	4	4	50	200
Mercury	mg/kg	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	0.00053	< 0.00005	0.00058	< 0.00005	< 0.00005	< 0.00005	0.01	0.01	0.2	2
Phenol	mg/kg	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	1	1	NE	NE
Fluoride	mg/kg	2.8	< 1.0	< 1.0	2.6	3.5	3.2	5.5	2.7	3.1	2.8	3.7	10	10	150	500
Chloride	mg/kg	10	< 10	11	11	14	< 10	< 10	17	36	25	< 10	800	2,400	15,000	25,000
Sulphate	mg/kg	200	13	46	230	190	250	66	420	770	420	190	1000*	3,000	20000*	50,000
DOC **	mg/kg	< 50	330	< 50	< 50	< 50	100	< 50	100	< 50	230	< 50	500	500	800	1,000
pH	pH units	8.6	8.7	8.6	8.7	8.6	8.5	8.2	8.4	8.5	8.3	8.7	NE	NE	NE	NE
TDS ***	mg/kg	780	320	300	720	780	840	710	1200	1800	1200	910	4,000	12,000	60,000	100,000
TOC	%	0.21	1.1	0.4	0.61	0.3	0.91	0.46	0.4	1.4	0.33	0.31	3	6	NE	6
Benzene	mg/kg	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	6	6	NE	NE
Toluene	mg/kg	0.0019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	6	6	NE	NE
Ethylbenzene	mg/kg	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	6	6	NE	NE
m/p-Xylene	mg/kg	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	6	6	NE	NE
o-Xylene	mg/kg	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	6	6	NE	NE
PCB Total of 7	mg/kg	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	1	1	NE	NE
Total 17 PAH's	mg/kg	0.38	71	7.3	3.2	3.8	0.37	< 0.20	6.3	0.29	< 0.20	< 0.20	NE	100	NE	NE
Mineral Oil	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10	440	< 10	< 10	< 10	< 10	500	500	NE	NE
Asbestos	% mass	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NE	NE	NE	NE

NAD denotes No Asbestos Detected

* denotes sulphate level exceeding inert waste limit may be considered as complying if the TDS value does not exceed 6,000mg/kg at L/S = 10l/kg.

** denotes a higher limit may be accepted provided the DOC alternative values of 500mg/kg is achieved

*** denotes TDS. The values for TDS can be used to sulphate and chloride.

PAH over 1mg/kg and Mineral Oil over 50 mg/kg exceeds limit at soil recovery site in Ireland

Table 2.3 WAC Results

Parameter	Unit	WS06 (6-2)	WS07 (7-1)	WS07 (7-2)	WS08 (8-1)	WS8	WS09 (9-1)	WS9	WS10 (10-1)	WS10 (10-2)	WS11 (11-1)	WS11 (11-2)	Inert Landfill	Inert Landfill Increased Limits	Non-Hazardous Landfill	Hazardous Landfill
Depth	m	1.0-2.0	0.0-1.0	1.0-2.0	0.0-1.0	1.10	0.0-1.0	2.00	0.6-1.0	1.0-2.0	0.0-1.0	1.0-2.0				
Antimony	mg/kg	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.06	0.18	0.7	5
Arsenic	mg/kg	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.0064	0.0060	0.0022	0.0025	< 0.0002	0.0028	0.0076	0.5	1.5	2	25
Barium	mg/kg	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	20	20	100	300
Cadmium	mg/kg	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.04	0.04	1	5
Chromium	mg/kg	0.098	0.11	0.097	0.097	< 0.0005	0.094	0.011	0.10	0.093	0.094	0.11	0.5	0.5	10	70
Copper	mg/kg	0.0075	0.0077	0.011	0.0072	< 0.0005	0.013	0.0060	0.0077	0.014	0.0074	0.0093	2	2	50	100
Lead	mg/kg	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.5	0.5	10	50
Molybdenum	mg/kg	0.023	0.030	0.019	0.022	0.075	0.064	0.10	0.073	0.064	0.067	0.12	0.5	1.5	10	30
Nickel	mg/kg	0.040	0.043	0.044	0.042	< 0.0005	0.040	< 0.0005	0.044	0.044	0.042	0.052	0.4	0.4	10	40
Selenium	mg/kg	0.0065	0.0056	< 0.0005	< 0.0005	0.0083	0.013	0.010	0.016	0.011	0.013	0.015	0.1	0.3	0.5	7
Zinc	mg/kg	< 0.003	< 0.003	0.035	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	0.32	< 0.003	0.026	4	4	50	200
Mercury	mg/kg	< 0.00005	< 0.00005	< 0.00005	< 0.00005	0.00056	< 0.00005	0.00061	< 0.00005	< 0.00005	< 0.00005	< 0.00005	0.01	0.01	0.2	2
Phenol	mg/kg	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	1	1	NE	NE
Fluoride	mg/kg	3.7	3.4	3.0	2.3	1.9	3.2	3.3	3.9	3.2	2.7	3.8	10	10	150	500
Chloride	mg/kg	< 10	< 10	< 10	19	< 10	12	< 10	< 10	18	< 10	< 10	800	2,400	15,000	25,000
Sulphate	mg/kg	210	150	130	320	210	250	52	310	240	160	270	1000*	3,000	20000*	50,000
DOC **	mg/kg	< 50	< 50	< 50	< 50	70	84	100	< 50	110	50	53	500	500	800	1,000
pH	pH units	8.7	8.6	8.6	8.7	8.6	8.7	8.6	8.4	8.5	8.7	8.5	NE	NE	NE	NE
TDS ***	mg/kg	840	710	710	910	720	710	720	910	840	650	720	4,000	12,000	60,000	100,000
TOC	%	0.33	0.55	0.61	0.62	1.8	0.35	1	0.69	< 0.20	0.63	0.45	3	6	NE	6
Benzene	mg/kg	< 0.001	0.0014	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	6	6	NE	NE
Toluene	mg/kg	< 0.001	0.0094	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	6	6	NE	NE
Ethylbenzene	mg/kg	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	6	6	NE	NE
m/p-Xylene	mg/kg	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.0012	< 0.001	< 0.001	< 0.001	< 0.001	6	6	NE	NE
o-Xylene	mg/kg	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	6	6	NE	NE
PCB Total of 7	mg/kg	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	1	1	NE	NE
Total 17 PAH's	mg/kg	< 0.20	< 0.20	< 0.20	< 0.20	3.8	< 0.20	57	< 0.20	< 0.20	< 0.20	0.4	NE	100	NE	NE
Mineral Oil	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10	210	< 10	< 10	< 10	< 10	500	500	NE	NE
Asbestos	% mass	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NE	NE	NE	NE

NAD denotes No Asbestos Detected

* denotes sulphate level exceeding inert waste limit may be considered as complying if the TDS value does not exceed 6,000mg/kg at L/S = 10l/kg.

** denotes a higher limit may be accepted provided the DOC alternative values of 500mg/kg is achieved

*** denotes TDS. The values for TDS can be used to sulphate and chloride.

PAH over 1mg/kg and Mineral Oil over 50 mg/kg exceeds limit at soil recovery site in Ireland

Table 2.4 WAC Results

Parameter	Unit	WS12 (12-1)	WS12	WS13 (13-1)	WS13	WS14	WS15	WS 16	WS 17	WS18	WS 19	WS 20	Inert Landfill	Inert Landfill Increased Limits	Non-Hazardous Landfill	Hazardous Landfill
Depth	m	0.0-1.0	1.4	0.0-1.0	1.0-1.5	1.0-1.6	1.0-2.0	1.0-1.5	0.7-1.4	1.0-2.0	1.0-2.0	1.0-1.6				
Antimony	mg/kg	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.0058	< 0.0005	< 0.0005	0.010	0.06	0.18	0.7	5
Arsenic	mg/kg	< 0.0002	0.0087	< 0.0002	< 0.0002	< 0.0002	0.0080	0.0027	0.0027	< 0.0002	< 0.0002	0.0085	0.5	1.5	2	25
Barium	mg/kg	< 0.0005	0.10	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.052	0.63	< 0.0005	< 0.0005	0.61	20	20	100	300
Cadmium	mg/kg	< 0.00011	0.0028	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.04	0.04	1	5
Chromium	mg/kg	0.097	< 0.0005	0.095	< 0.0005	0.013	0.0056	0.0090	< 0.0005	< 0.0005	< 0.0005	0.0075	0.5	0.5	10	70
Copper	mg/kg	0.0076	0.017	0.0071	0.0063	0.0050	0.030	0.0072	0.045	0.0070	0.0077	0.0099	2	2	50	100
Lead	mg/kg	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.0072	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.5	0.5	10	50
Molybdenum	mg/kg	0.054	0.75	0.021	0.079	0.13	0.094	0.21	0.15	0.10	0.19	0.14	0.5	1.5	10	30
Nickel	mg/kg	0.043	< 0.0005	0.041	< 0.0005	< 0.0005	0.028	< 0.0005	0.044	< 0.0005	< 0.0005	< 0.0005	0.4	0.4	10	40
Selenium	mg/kg	< 0.0005	0.029	< 0.0005	< 0.0005	0.0054	0.0051	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.1	0.3	0.5	7
Zinc	mg/kg	< 0.003	0.38	< 0.003	< 0.003	< 0.003	0.14	0.045	< 0.003	< 0.003	< 0.003	< 0.003	4	4	50	200
Mercury	mg/kg	< 0.00005	< 0.00005	< 0.00005	0.00055	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	0.01	0.01	0.2	2
Phenol	mg/kg	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	1	1	NE	NE
Fluoride	mg/kg	3.7	3.0	3.8	2.4	8.0	3.4	6.3	8.0	5.0	5.7	5.1	10	10	150	500
Chloride	mg/kg	18	34	< 10	14	< 10	17	18	16	< 10	< 10	18	800	2,400	15,000	25,000
Sulphate	mg/kg	220	250	78	400	78	39	200	230	36	97	310	1000*	3,000	20000*	50,000
DOC **	mg/kg	53	130	< 50	93	< 50	120	< 50	< 50	< 50	< 50	< 50	500	500	800	1,000
pH	pH units	8.5	8.4	8.6	8.3	9.1	9.2	9.6	8.8	9.3	8.8	8.7	NE	NE	NE	NE
TDS ***	mg/kg	840	970	710	1200	710	570	720	980	710	840	1000	4,000	12,000	60,000	100,000
TOC	%	0.47	1.1	0.39	0.44	0.85	0.52	0.72	0.57	0.44	0.64	0.66	3	6	NE	6
Benzene	mg/kg	< 0.001	0.0018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	6	6	NE	NE
Toluene	mg/kg	< 0.001	0.0067	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	6	6	NE	NE
Ethylbenzene	mg/kg	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	6	6	NE	NE
m/p-Xylene	mg/kg	< 0.001	0.0052	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	6	6	NE	NE
o-Xylene	mg/kg	< 0.001	0.0014	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	6	6	NE	NE
PCB Total of 7	mg/kg	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	1	1	NE	NE
Total 17 PAH's	mg/kg	2.3	4.8	0.26	< 0.20	< 0.20	< 0.20	1.1	0.56	< 0.20	< 0.20	< 0.20	NE	100	NE	NE
Mineral Oil	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10	< 10	5700	< 10	< 10	< 10	500	500	NE	NE
Asbestos	% mass	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NE	NE	NE	NE

NAD denotes No Asbestos Detected

* denotes sulphate level exceeding inert waste limit may be considered as complying if the TDS value does not exceed 6,000mg/kg at L/S = 10l/kg.

** denotes a higher limit may be accepted provided the DOC alternative values of 500mg/kg is achieved

*** denotes TDS. The values for TDS can be used to sulphate and chloride.

PAH over 1mg/kg and Mineral Oil over 50 mg/kg exceeds limit at soil recovery site in Ireland

Table 2.5 WAC Results

Parameter	Unit	WS 21	WS22	TP14	TP15	TP16	TP17	TP18	TP19	TP20	TP21	TP22	Inert Landfill	Inert Landfill Increased Limits	Non-Hazardous Landfill	Hazardous Landfill
Depth	m	1.0-1.6	1.0-1.5	0.5-1.0	0.5-1.0	0.6-1.0	0.5-1.0	0.5-1.0	0.5-1.0	0.5-1.0	0.6-1.0	0.6-1.0				
Antimony	mg/kg	< 0.0005	0.0082	0.0092	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.0066	< 0.0005	< 0.0005	0.06	0.18	0.7	5
Arsenic	mg/kg	< 0.0002	0.022	0.0095	0.0057	0.0041	0.0046	0.0022	< 0.0002	0.0094	< 0.0002	0.0022	0.5	1.5	2	25
Barium	mg/kg	< 0.0005	0.14	0.98	0.054	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.11	< 0.0005	< 0.0005	20	20	100	300
Cadmium	mg/kg	< 0.00011	< 0.00011	0.0082	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.04	0.04	1	5
Chromium	mg/kg	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.0063	0.5	0.5	10	70
Copper	mg/kg	0.0078	< 0.0005	0.13	0.015	0.017	0.018	0.0072	0.0058	< 0.0005	0.0081	< 0.0005	2	2	50	100
Lead	mg/kg	< 0.0005	< 0.0005	0.049	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.5	0.5	10	50
Molybdenum	mg/kg	0.11	0.11	0.74	0.14	0.14	0.13	0.10	0.20	0.11	0.12	0.13	0.5	1.5	10	30
Nickel	mg/kg	0.0061	< 0.0005	0.019	0.010	0.0054	0.0089	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.4	0.4	10	40
Selenium	mg/kg	< 0.0005	0.0070	0.060	0.0064	0.0059	< 0.0005	0.011	< 0.0005	0.012	< 0.0005	< 0.0005	0.1	0.3	0.5	7
Zinc	mg/kg	0.17	< 0.003	1.4	< 0.003	< 0.003	< 0.003	0.031	< 0.003	< 0.003	< 0.003	< 0.003	4	4	50	200
Mercury	mg/kg	< 0.00005	0.00074	< 0.00005	0.00069	0.00073	0.00068	< 0.00005	0.00057	< 0.00005	0.00071	0.00068	0.01	0.01	0.2	2
Phenol	mg/kg	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	1	1	NE	NE
Fluoride	mg/kg	4.5	2.7	6.4	4.8	6.0	3.8	4.4	5.0	2.4	4.3	8.7	10	10	150	500
Chloride	mg/kg	18	13	23	< 10	15	13	< 10	< 10	41	15	11	800	2,400	15,000	25,000
Sulphate	mg/kg	72	210	66	130	130	99	140	98	490	150	45	1000*	3,000	20000*	50,000
DOC **	mg/kg	< 50	130	370	270	570	630	100	110	70	120	100	500	500	800	1,000
pH	pH units	8.7	8.5	7.9	8.4	8.3	8.3	8.3	8.2	8.4	8.3	8.5	NE	NE	NE	NE
TDS ***	mg/kg	780	720	1200	780	910	910	850	720	1200	850	720	4,000	12,000	60,000	100,000
TOC	%	0.87	0.6	0.83	0.28	0.59	0.81	1.5	0.58	0.42	0.61	0.34	3	6	NE	6
Benzene	mg/kg	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	6	6	NE	NE
Toluene	mg/kg	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	6	6	NE	NE
Ethylbenzene	mg/kg	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	6	6	NE	NE
m/p-Xylene	mg/kg	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	6	6	NE	NE
o-Xylene	mg/kg	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	6	6	NE	NE
PCB Total of 7	mg/kg	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	1	1	NE	NE
Total 17 PAH's	mg/kg	0.49	0.45	10	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	NE	100	NE	NE
Mineral Oil	mg/kg	< 10	3400	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	500	500	NE	NE
Asbestos	% mass	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NE	NE	NE	NE

NAD denotes No Asbestos Detected

* denotes sulphate level exceeding inert waste limit may be considered as complying if the TDS value does not exceed 6,000mg/kg at L/S = 10l/kg.

** denotes a higher limit may be accepted provided the DOC alternative values of 500mg/kg is achieved

*** denotes TDS. The values for TDS can be used to sulphate and chloride.

PAH over 1mg/kg and Mineral Oil over 50 mg/kg exceeds limit at soil recovery site in Ireland

2.4 Waste Management Options

The EPA has issued guidance on acceptance criteria for a range of parameters for soil recovery sites. This includes;

- Metals (solid concentration not leachability) in soil and stone (including As, Cd, Cr, Cu, Hg, Ni, Pb, Zn);
- Total organic carbon in soil and stone;
- Total BTEX (benzene, toluene, ethylbenzene, xylenes) in soil and stone;
- Mineral oil in soil and stone;
- Polycyclic aromatic hydrocarbons (PAHs) in soil and stone;
- Polychlorinated Biphenyls (PCBs) in soil and stone;
- Asbestos fibres in soil and stone.

The guidance requires that soils from brownfield sites should not exceed the limits for the parameters specified in Table 2.6 and 2.7. For metals limits have been specified for a range of soil types nationally separated into six domain areas.

Table 2.6 Soil Recovery Site Criteria

Parameter	Limit for Soil Recovery Sites
Total BTEX	0.05 mg/kg
Mineral oil	50 mg/kg
Total PAHs	1 mg/kg
Total PCBs	0.05 mg/kg

The samples from WS01 (1.0-2.0m), WS02, WS03 (0.0-1.0m), WS04, WS08 (1.10m), WS09 (2.0m), WS12 (0.0-1.0m) and WS16 (1.0-1.5) exceed the soil recovery criteria for PAHs and/or Mineral Oil. These samples have therefore been classified as (B-1) suitable for treatment/disposal to inert landfill. The samples from WS12 (1.4m) and TP14 (0.5-1.0m) exceeds the inert WAC, therefore cannot be set to soil recovery sites.

The soil and stone cannot be sent to soil recovery sites if the trigger levels for a particular domain are exceeded. There is however some flexibility in applying the limits. A derogation applies where up to three parameters can exceed the limit for a sample provided the concentration in the samples is no more than 1.5 times the trigger level. The site which is subject to this investigation is located in Domain 2 and the trigger levels are listed in Table 2.7.

Table 2.7 Soil Recovery Trigger Levels

		Domain 2 Trigger Level	1.5 times Trigger Level
Arsenic	**mg/kg**	24.90	37.35
Cadmium	**mg/kg**	3.28	4.92
Chromium	**mg/kg**	50.30	75.45
Copper	**mg/kg**	63.50	95.25
Mercury	**mg/kg**	0.36	0.54
Nickel	**mg/kg**	61.90	92.85
Lead	**mg/kg**	86.10	129.15
Zinc	**mg/kg**	197.00	295.5

The samples from WS03 (1.5m), WS04 (0.0-1.0m), WS06 (1.0-2.0m) and WS09 (2.0m) exceeds the soil recovery limits for metals. WS03 (1.5m) exceeds the 1.5 times trigger level for zinc. WS04 (0.0-1.0m) exceeds the 1.5 times trigger level for arsenic. WS06 (1.0-2.0m) and WS09 (2.0m) exceed the 1.5 times trigger level for copper. These soils from these areas are not suitable for soil recovery sites but are suitable for inert landfill (B-1). The samples from WS05 (1.8m), WS12 (1.4m) and TP14 (0.5-1.0m) exceed the soil recovery site criteria for metals, however as these samples exceed the inert WAC, the soil recovery criteria do not apply.

Waste management options are summarised on Table 2.8. All are subject to approval of the waste management facility operators. Class A wastes are suitable for recovery at a permitted soils recovery facility. B-1 wastes are suitable for recovery/disposal to inert waste landfill. B-2 wastes are suitable for recovery/disposal to inert waste landfill with increased limits. Class C wastes are suitable for disposal to non-hazardous landfill.

Table 2.8 Waste Management Options

Sample No.	Depth	LoW Code	Category	Sample No.	Depth	LoW Code	Category
WS01 (1-1)	0.5-1.0	17 05 04	A	WS12 (12-1)	0.0-1.0	17 05 04	B-1
WS01 (1-2)	1.0-2.0	17 05 04	B-1	WS12	1.4	17 05 04	B-2
WS02 (2-1)	0.0-1.0	17 05 04	B-1	WS13 (13-1)	0.0-1.0	17 05 04	A
WS02 (2-2)	1.0-2.0	17 05 04	B-1	WS13	1.0-1.5	17 05 04	A
WS03 (3-1)	0.0-1.0	17 05 04	B-1	WS14	1.0-1.6	17 05 04	A
WS3	1.50	17 05 04	B-1	WS15	1.0-2.0	17 05 04	A
WS04 (4-1)	0.0-1.0	17 05 04	B-1	WS 16	1.0-1.5	17 05 04	B-1
WS4	1.80	17 05 04	B-1	WS 17	0.7-1.4	17 05 04	C
WS05 (5-1)	0.0-1.0	17 05 04	A	WS18	1.0-2.0	17 05 04	A
WS5	1.8	17 05 04	B-2	WS 19	1.0-2.0	17 05 04	A
WS06 (6-1)	0.0-1.0	17 05 04	A	WS 20	1.0-1.6	17 05 04	A
WS06 (6-2)	1.0-2.0	17 05 04	B-1	WS 21	1.0-1.6	17 05 04	A
WS07 (7-1)	0.0-1.0	17 05 04	A	WS22	1.0-1.5	17 05 04	C
WS07 (7-2)	1.0-2.0	17 05 04	A	TP14	0.5-1.0	17 05 04	B-2
WS08 (8-1)	0.0-1.0	17 05 04	A	TP15	0.5-1.0	17 05 04	A
WS8	1.10	17 05 04	B-1	TP16	0.6-1.0	17 05 04	C
WS09 (9-1)	0.0-1.0	17 05 04	A	TP17	0.5-1.0	17 05 04	C
WS9	2.00	17 05 04	B-1	TP18	0.5-1.0	17 05 04	A
WS10 (10-1)	0.6-1.0	17 05 04	A	TP19	0.5-1.0	17 05 04	A
WS10 (10-2)	1.0-2.0	17 05 04	A	TP20	0.5-1.0	17 05 04	A
WS11 (11-1)	0.0-1.0	17 05 04	A	TP21	0.6-1.0	17 05 04	A
WS11 (11-2)	1.0-2.0	17 05 04	A	TP22	0.6-1.0	17 05 04	A

A	Classified as Non-Hazardous, 17 05 04 meets soil recovery criteria
B-1	Classified as Non-Hazardous, 17 05 04 meets inert WAC
B-2	Classified as Non-Hazardous, 17 05 04 meets inert WAC increased limits
C	Classified as Non-Hazardous 17 05 04

3 CONCLUSIONS AND RECOMMENDATIONS

3.1 Conclusions

3.1.1 *Waste Classification*

Asbestos was not detected any of the samples.

All samples are classified as non-hazardous and the appropriate List of Waste Code is 17 05 04 (Soil and Stone other than those mentioned in 17 05 03*).

The samples from WS17 (0.7-1.4m) and WS22 (1.0-1.5m) contain elevated levels of TPH. A hydrocarbon interpretation conducted by the laboratory indicates the presence of diesel at non-hazardous concentrations.

The recovery/disposal options are discussed in Section 2.4.

3.2 Recommendations

OCM recommend that a copy of this report be provided in full to the relevant waste management facilities to which the made ground and subsoils will be consigned to confirm its suitability for acceptance.

Appendix 1

Trial Pit and Window Sample Logs

TRIAL PIT RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**TRIAL PIT NO.**	**TP01**
		SHEET	Sheet 1 of 1
LOGGED BY	I.Reder	**DATE STARTED**	26/05/2021
		DATE COMPLETED	26/05/2021
CLIENT ENGINEER	DBFL	**EXCAVATION METHOD**	3T Mini Digger

CO-ORDINATES

GROUND LEVEL (m)

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TARMAC		0.05							
MADE GROUND (comprised of grey angular gravel and cobbles - C.L.804)		0.35							
Firm to stiff, brown, slightly sandy gravelly SILT/CLAY with some flat angular cobbles		0.65			AA138472	Env	0.50-0.85		
Very dense, brown/grey mottled, silty angular GRAVEL with angular cobbles (possible weathered rock)		0.85							
TP terminated due to possible boulders End of Trial Pit at 0.85m									

1.0

2.0

3.0

4.0

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
TP01 dug for check of any underground services in WS01/RC01 the location

TRIAL PIT RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**TRIAL PIT NO.**	**TP02**
		SHEET	Sheet 1 of 1
LOGGED BY	I.Reder	**DATE STARTED**	27/05/2021
	CO-ORDINATES	**DATE COMPLETED**	27/05/2021
CLIENT	**GROUND LEVEL (m)**	**EXCAVATION METHOD**	3T Mini Digger
ENGINEER	DBFL		

	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	TARMAC		0.04							
	MADE GROUND (comprised of grey angular gravel and cobbles - C.L.804)		0.45							
	Firm to stiff, greyish brown, slightly sandy gravelly SILT/CLAY with some angular to subangular cobbles		0.90			AA138475	Env	0.50-1.00		
1.0	Very dense, grey, slightly silty angular GRAVEL with angular cobbles (possible weathered rock)		1.20							
	End of Trial Pit at 1.20m									
2.0										
3.0										
4.0										

Groundwater Conditions
Slightly seepage at 0.45m

Stability
TP stable

General Remarks
TP02 dug for check of any underground services in WS02/RC02 the location

TRIAL PIT RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**TRIAL PIT NO.**	**TP03**
		SHEET	Sheet 1 of 1
LOGGED BY	I.Reder	**DATE STARTED**	27/05/2021
	CO-ORDINATES	**DATE COMPLETED**	27/05/2021
CLIENT	**GROUND LEVEL (m)**	**EXCAVATION METHOD**	3T Mini Digger
ENGINEER	DBFL		

	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	TARMAC		0.05							
	MADE GROUND (comprised of grey angular gravel and cobbles - C.L.804)		0.35							
	Firm to stiff, brown, slightly sandy gravelly silty CLAY with some flat angular cobbles					AA138476	Env	0.50-1.00		
1.0			1.20							
	End of Trial Pit at 1.20m									
2.0										
3.0										
4.0										

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
TP03 dug for check of any underground services in WS03/RC03 the location

TRIAL PIT RECORD

REPORT NUMBER
23311

CONTRACT	Blanchardstown T.C.	**TRIAL PIT NO.**	**TP04**
		SHEET	Sheet 1 of 1
LOGGED BY	I.Reder	**DATE STARTED**	27/05/2021
	CO-ORDINATES	**DATE COMPLETED**	27/05/2021
CLIENT	**GROUND LEVEL (m)**	**EXCAVATION METHOD**	3T Mini Digger
ENGINEER	DBFL		

	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples			Vane Test (KPa)	Hand Penetrometer (KPa)
						Sample Ref	Type	Depth		
0.0	TARMAC		0.07							
	MADE GROUND (comprised of grey angular gravel and cobbles - C.L.804)		0.35							
	Firm to stiff, brown to greyish brown, slightly sandy gravelly SILT/CLAY with some angular cobbles					AA138577	Env	0.50-1.00		
1.0										
	End of Trial Pit at 1.20m		1.20							
2.0										
3.0										
4.0										

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
TP04 dug for check of any underground services in WS04/RC04 the location

TRIAL PIT RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**TRIAL PIT NO.**	**TP05**
		SHEET	Sheet 1 of 1
LOGGED BY	I.Reder	**DATE STARTED**	28/05/2021
		DATE COMPLETED	28/05/2021
CLIENT		**EXCAVATION METHOD**	3T Mini Digger
ENGINEER	DBFL		

CO-ORDINATES

GROUND LEVEL (m)

	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	TARMAC		0.08							
	MADE GROUND (comprised of brown/grey angular gravel and cobbles - C.L.804)		0.35							
	Firm to stiff, brown, slightly sandy slightly gravelly CLAY with some roots, occasional small pieces of red brick, and single pieces of old plastic pipe (FILL)		0.60			AA138484	Env	0.50-1.00		
	Stiff to very stiff, light brown/brown, slightly sandy slightly gravelly SILT/CLAY with some angular cobbles									
1.0	End of Trial Pit at 1.10m		1.10							
2.0										
3.0										
4.0										

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
TP13 dug for check of any underground services in WS13/RC13 the location

TRIAL PIT RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**TRIAL PIT NO.**	**TP06**
		SHEET	Sheet 1 of 1
LOGGED BY	I.Reder	**DATE STARTED**	26/05/2021
	CO-ORDINATES	**DATE COMPLETED**	26/05/2021
CLIENT	**GROUND LEVEL (m)**	**EXCAVATION METHOD**	3T Mini Digger
ENGINEER	DBFL		

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TARMAC		0.05							
MADE GROUND (comprised of grey angular gravel and cobbles - C.L.804)		0.35							
Firm to stiff, greyish brown, slightly sandy gravelly SILT/CLAY with some angular to subangular cobbles					AA138471	Env	0.50-1.00		
1.0									
End of Trial Pit at 1.20m		1.20							
2.0									
3.0									
4.0									

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
TP06 dug for check of any underground services in WS06/RC06 the location

TRIAL PIT RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**TRIAL PIT NO.**	**TP07**
		SHEET	Sheet 1 of 1
LOGGED BY	I.Reder	**DATE STARTED**	26/05/2021
		DATE COMPLETED	26/05/2021
CLIENT		**EXCAVATION METHOD**	3T Mini Digger
ENGINEER	DBFL		

CO-ORDINATES

GROUND LEVEL (m)

	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	TARMAC		0.05							
	MADE GROUND (comprised of grey angular gravel and cobbles - C.L.804)		0.30							
	Firm, light brown/brown, slightly sandy gravelly SILT/CLAY with occasional cobbles		0.55			AA138473	Env	0.50-1.00		
	Firm to stiff, brown/grey mottled, very gravelly SILT/CLAY with many angular cobbles (possible very silty/clayey gravel)									
1.0			1.20							
	End of Trial Pit at 1.20m									
2.0										
3.0										
4.0										

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
TP07 dug for check of any underground services in WS07/RC07 the location

TRIAL PIT RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**TRIAL PIT NO.**	**TP08**
		SHEET	Sheet 1 of 1
LOGGED BY	I.Reder	**DATE STARTED**	27/05/2021
	CO-ORDINATES	**DATE COMPLETED**	27/05/2021
CLIENT	**GROUND LEVEL (m)**	**EXCAVATION METHOD**	3T Mini Digger
ENGINEER	DBFL		

	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	TARMAC		0.05							
	MADE GROUND (comprised of grey angular gravel and cobbles - C.L.804)		0.30							
	Firm to stiff, greyish brown, slightly sandy gravelly SILT/CLAY with some angular to subangular cobbles					AA138479	Env	0.50-0.90		
1.0	TP terminated due to possible boulders End of Trial Pit at 0.95m		0.95							
2.0										
3.0										
4.0										

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
TP08 dug for check of any underground services in WS08/RC08 the location

TRIAL PIT RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**TRIAL PIT NO.**	**TP09**
		SHEET	Sheet 1 of 1
LOGGED BY	I.Reder	**DATE STARTED**	27/05/2021
		DATE COMPLETED	27/05/2021
CLIENT ENGINEER	DBFL	**EXCAVATION METHOD**	3T Mini Digger

CO-ORDINATES

GROUND LEVEL (m)

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TARMAC		0.05							
MADE GROUND (comprised of grey angular gravel and cobbles - C.L.804)		0.35							
Soft to firm, brown, very sandy slightly gravelly SILT/CLAY with occasional cobbles					AA138478	Env	0.50-1.00		
1.0									
End of Trial Pit at 1.20m		1.20							
2.0									
3.0									
4.0									

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
TP09 dug for check of any underground services in WS09/RC09 the location

TRIAL PIT RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**TRIAL PIT NO.**	**TP10**
		SHEET	Sheet 1 of 1
LOGGED BY	I.Reder	**DATE STARTED**	26/05/2021
		DATE COMPLETED	26/05/2021
CLIENT ENGINEER	DBFL	**EXCAVATION METHOD**	3T Mini Digger

CO-ORDINATES

GROUND LEVEL (m)

	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	TARMAC		0.08							
	MADE GROUND (comprised of grey angular gravel and cobbles - C.L.804)		0.55							
	Firm, brown/grey mottled, sandy slightly gravelly SILT/CLAY					AA138470	Env	0.60-1.00		
1.0			1.20							
	End of Trial Pit at 1.20m									
2.0										
3.0										
4.0										

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
TP10 dug for check of any underground services in WS01/RC10 the location

TRIAL PIT RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**TRIAL PIT NO.**	**TP11**
		SHEET	Sheet 1 of 1
LOGGED BY	I.Reder	**DATE STARTED**	26/05/2021
		DATE COMPLETED	26/05/2021
CLIENT		**EXCAVATION METHOD**	3T Mini Digger
ENGINEER	DBFL		

CO-ORDINATES

GROUND LEVEL (m)

	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	TARMAC		0.05							
	MADE GROUND (comprised of grey angular gravel and cobbles - C.L.804)		0.35							
	Firm to stiff, brown to greysih brown, slightly sandy gravelly SILT/CLAY with many angular cobbles					AA138473	Env	0.50-1.00		
1.0	TP terminated due to possible boulders End of Trial Pit at 1.00m		1.00							
2.0										
3.0										
4.0										

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
TP11 dug for check of any underground services in WS11/RC11 the location

TRIAL PIT RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**TRIAL PIT NO.**	**TP12**
		SHEET	Sheet 1 of 1
LOGGED BY	I.Reder	**DATE STARTED**	28/05/2021
		DATE COMPLETED	28/05/2021
CLIENT		**EXCAVATION METHOD**	3T Mini Digger
ENGINEER	DBFL		

CO-ORDINATES

GROUND LEVEL (m)

	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	TARMAC		0.06							
	MADE GROUND (comprised of grey angular gravel and cobbles - C.L.804)		0.35							
	Firm to stiff, brown, slightly sandy gravelly SILT/CLAY with some angular cobbles					AA138482	Env	0.50-1.00		
1.0			1.20							
	End of Trial Pit at 1.20m									
2.0										
3.0										
4.0										

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
TP10 dug for check of any underground services in WS10/RC10 the location

TRIAL PIT RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**TRIAL PIT NO.**	**TP13**
		SHEET	Sheet 1 of 1
LOGGED BY	I.Reder	**DATE STARTED**	28/05/2021
		DATE COMPLETED	28/05/2021
CLIENT		**EXCAVATION METHOD**	3T Mini Digger
ENGINEER	DBFL		

CO-ORDINATES

GROUND LEVEL (m)

	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	TARMAC		0.06							
	MADE GROUND (comprised of grey angular gravel and cobbles - C.L.804)		0.35							
	Stiff, light brown/brown, slightly sandy gravelly SILT/CLAY with some angular cobbles					AA138483	Env	0.50-0.80		
	TP terminated due to possible boulders End of Trial Pit at 0.85m		0.85							
1.0										
2.0										
3.0										
4.0										

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
TP13 dug for check of any underground services in WS13/RC13 the location

TRIAL PIT RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**TRIAL PIT NO.**	**TP14**
		SHEET	Sheet 1 of 1
LOGGED BY	I.Reder	**DATE STARTED**	08/06/2021
	CO-ORDINATES	**DATE COMPLETED**	08/06/2021
CLIENT	**GROUND LEVEL (m)**	**EXCAVATION METHOD**	3T Mini Digger
ENGINEER	DBFL		

	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	TARMAC		0.09							
	MADE GROUND (comprised of dark grey angular gravel - C.L.804)		0.50							
	Soft to firm, brown, slightly sandy slightly gravelly CLAY with very occasional cobbles					AA156051	Env	0.50-1.00		
1.0			1.20							
	End of Trial Pit at 1.20m									
2.0										
3.0										
4.0										

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
TP14 dug for check of any underground services in WS14/RC14 the location

TRIAL PIT RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**TRIAL PIT NO.**	**TP15**
		SHEET	Sheet 1 of 1
LOGGED BY	I.Reder	**DATE STARTED**	08/06/2021
	CO-ORDINATES	**DATE COMPLETED**	08/06/2021
CLIENT	**GROUND LEVEL (m)**	**EXCAVATION METHOD**	3T Mini Digger
ENGINEER	DBFL		

	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	TARMAC		0.07							
	MADE GROUND (comprised of dark grey angular gravel - C.L.804)		0.50							
	Firm, brownish grey, sandy slightly gravelly SILT/CLAY		0.65			AA156052	Env	0.50-1.00		
	Firm, light brown/brown, sandy slightly gravelly SILT/CLAY		0.90							
1.0	Firm, light brown/brown, sandy gravelly SILT/CLAY with occasional cobbles		1.20							
	End of Trial Pit at 1.20m									
2.0										
3.0										
4.0										

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
TP15 dug for check of any underground services in WS15/RC15 the location

TRIAL PIT RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**TRIAL PIT NO.**	**TP16**
		SHEET	Sheet 1 of 1
LOGGED BY	I.Reder	**DATE STARTED**	08/06/2021
		DATE COMPLETED	08/06/2021
CLIENT ENGINEER	DBFL	**EXCAVATION METHOD**	3T Mini Digger

CO-ORDINATES

GROUND LEVEL (m)

	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	TARMAC		0.10							
	MADE GROUND (comprised of dark grey angular gravel - C.L.804)		0.60							
	Firm, brown, sandy slightly gravelly slightly silty CLAY		0.90			AA156051	Env	0.60-1.00		
1.0	Firm, brown, sandy slightly gravelly slightly silty CLAY with some subangular cobbles		1.10							
	TP terminated due to possible boulders End of Trial Pit at 1.10m									
2.0										
3.0										
4.0										

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
TP16 dug for check of any underground services in WS16/RC16 the location

TRIAL PIT RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**TRIAL PIT NO.**	**TP17**
		SHEET	Sheet 1 of 1
LOGGED BY	I.Reder	**DATE STARTED**	08/06/2021
		DATE COMPLETED	08/06/2021
CLIENT ENGINEER	DBFL	**EXCAVATION METHOD**	3T Mini Digger

CO-ORDINATES

GROUND LEVEL (m)

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0 TARMAC		0.09							
MADE GROUND (comprised of dark grey angular gravel - C.L.804)		0.45							
Firm, brown, slightly sandy slightly gravelly CLAY with some cobbles		0.70			AA156053	Env	0.50-1.00		
Firm to stiff, brown, slightly sandy gravelly CLAY with some subangular to subrounded cobbles		1.20							
End of Trial Pit at 1.20m									

1.0 2.0 3.0 4.0

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
TP17 dug for check of any underground services in WS17/RC17 the location

TRIAL PIT RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**TRIAL PIT NO.**	**TP18**
		SHEET	Sheet 1 of 1
LOGGED BY	I.Reder	**DATE STARTED**	08/06/2021
		DATE COMPLETED	08/06/2021
CLIENT		**EXCAVATION METHOD**	3T Mini Digger
ENGINEER	DBFL		

CO-ORDINATES

GROUND LEVEL (m)

	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	TARMAC		0.09							
	MADE GROUND (comprised of dark grey angular gravel - C.L.804)		0.40							
	Firm to stiff, brown, slightly sandy gravelly CLAY with some subangular to subrounded cobbles					AA156054	Env	0.50-1.00		
1.0			1.20							
	End of Trial Pit at 1.20m									
2.0										
3.0										
4.0										

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
TP18 dug for check of any underground services in WS18/RC18 the location

TRIAL PIT RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**TRIAL PIT NO.**	**TP19**
		SHEET	Sheet 1 of 1
LOGGED BY	I.Reder	**DATE STARTED**	08/06/2021
		DATE COMPLETED	08/06/2021
CLIENT ENGINEER	DBFL	**EXCAVATION METHOD**	3T Mini Digger

CO-ORDINATES

GROUND LEVEL (m)

	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	TARMAC		0.07							
	MADE GROUND (comprised of dark grey angular gravel - C.L.804)		0.33							
	Soft to firm, brown, sandy gravelly CLAY with occasional cobbles					AA156055	Env	0.50-1.00		
1.0			1.20							
	End of Trial Pit at 1.20m									
2.0										
3.0										
4.0										

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
TP19 dug for check of any underground services in WS19/RC19 the location

TRIAL PIT RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**TRIAL PIT NO.**	**TP20**
		SHEET	Sheet 1 of 1
LOGGED BY	I.Reder	**DATE STARTED**	17/06/2021
		DATE COMPLETED	17/06/2021
CLIENT		**EXCAVATION METHOD**	3T Mini Digger
ENGINEER	DBFL		

CO-ORDINATES

GROUND LEVEL (m)

	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	TARMAC		0.11							
	MADE GROUND (comprised of dark grey angular gravel - C.L.804)		0.40							
	MADE GROUND (comprised of brown/grey mottled sandy gravelly clay, many angular cobbles, lean-mix/concrete, very occasional plastic rubbish)					AA156090	Env	0.50-1.00		
1.0	Firm, brown, slightly sandy gravelly CLAY with cobbles (possible original ground)		1.10							
	End of Trial Pit at 1.20m		1.20							
2.0										
3.0										
4.0										

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
TP20 dug for check of any underground services in WS20/RC20 the location

TRIAL PIT RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**TRIAL PIT NO.**	**TP21**
		SHEET	Sheet 1 of 1
LOGGED BY	I.Reder	**DATE STARTED**	17/06/2021
		DATE COMPLETED	17/06/2021
CLIENT ENGINEER	DBFL	**EXCAVATION METHOD**	3T Mini Digger

CO-ORDINATES

GROUND LEVEL (m)

Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
TARMAC		0.08							
MADE GROUND (comprised of dark grey angular gravel - C.L.804)		0.55							
Firm to stiff, greyish brown, slightly sandy gravelly silty CLAY with many angular to subangular cobbles		1.20			AA156089	Env	0.60-1.00		
End of Trial Pit at 1.20m									

0.0 1.0 2.0 3.0 4.0

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
TP21 dug for check of any underground services in WS21/RC21 the location

TRIAL PIT RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**TRIAL PIT NO.**	**TP22**
		SHEET	Sheet 1 of 1
LOGGED BY	I.Reder	**DATE STARTED**	17/06/2021
		DATE COMPLETED	17/06/2021
CLIENT ENGINEER	DBFL	**EXCAVATION METHOD**	3T Mini Digger

CO-ORDINATES

GROUND LEVEL (m)

	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Samples: Sample Ref	Samples: Type	Samples: Depth	Vane Test (KPa)	Hand Penetrometer (KPa)
0.0	TARMAC		0.07							
	MADE GROUND (comprised of dark grey angular gravel - C.L.804)		0.55							
	Soft to firm, very sandy gravelly silty CLAY with occasional cobbles					AA156088	Env	0.60-1.00		
1.0			1.20							
	End of Trial Pit at 1.20m									
2.0										
3.0										
4.0										

Groundwater Conditions
TP dry

Stability
TP stable

General Remarks
TP22 dug for check of any underground services in WS22/RC22 the location

IGSL Limited

WINDOW SAMPLE RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**BH NO.**	**WS01**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	GROUND LEVEL (mOD)	**DATE DRILLED**	27/05/2021
		DATE LOGGED	27/05/2021
CLIENT		**DRILLED BY**	C.Kavanagh
ENGINEER	DBFL	**LOGGED BY**	C.H.

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples Ref. Number	Samples Sample Type	Samples Depth (m)
0.0	Machine / hand dug inspection pit for services - for all details see TP01 log							Inspection Pit blows			
	Firm, grey mottled brown, sandy gravelly SILT/CLAY		0.85			0.85-1.00	100	81 blows			
1.0						1.00-2.00	100	356 blows	RA144818	ENV	1.00-2.00
	Firm to stiff, grey, sandy gravelly SILT/CLAY with angular cobbles		1.10								
2.0	Final Depth 2.00m		2.00								
3.0											

General Remarks

Installations

IGSL Limited

WINDOW SAMPLE RECORD

REPORT NUMBER 23311

CONTRACT Blanchardstown T.C.		**BH NO.**	**WS02**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	GROUND LEVEL (mOD)	**DATE DRILLED**	27/05/2021
		DATE LOGGED	27/05/2021
CLIENT		**DRILLED BY**	C.Kavanagh
ENGINEER DBFL		**LOGGED BY**	C.H.

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples Ref. Number	Samples Sample Type	Samples Depth (m)
0.0	Machine / hand dug inspection pit for services - for all details see TP02 log							Inspection Pit blows			
1.0									AA144816	ENV	1.00-2.00
	Dense to very dense, grey, slighlty silty angular GRAVEL with angular cobbles		1.20			1.20-2.00	100	269 blows			
2.0	Final Depth 2.00m		2.00								
3.0											

General Remarks

Installations

WS WITH DISCRETE SAMPLES 23311.GPJ IGSL.GDT 5/7/21

IGSL Limited

WINDOW SAMPLE RECORD

REPORT NUMBER 23311

CONTRACT Blanchardstown T.C.		**BH NO.**	**WS03**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	GROUND LEVEL (mOD)	**DATE DRILLED**	08/06/2021
		DATE LOGGED	08/06/2021
CLIENT		**DRILLED BY**	C.Kavanagh
ENGINEER DBFL		**LOGGED BY**	C.H.

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples Ref. Number	Samples Sample Type	Samples Depth (m)
0.0	Machine / hand dug inspection pit for services - for all details see TP03 log							Inspection Pit blows			
1.0									AA144803	ENV	1.00-1.50
	Firm, grey/brown, sandy gravelly silty CLAY		1.20			1.20-1.50	100	210 blows			
	Obstruction - possible rock or boulder Final Depth 1.50m		1.50								
2.0											
3.0											

General Remarks

Installations

IGSL Limited

WINDOW SAMPLE RECORD

REPORT NUMBER 23311

CONTRACT Blanchardstown T.C.		**BH NO.**	**WS04**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	GROUND LEVEL (mOD)	**DATE DRILLED**	08/06/2021
		DATE LOGGED	08/06/2021
CLIENT		**DRILLED BY**	C.Kavanagh
ENGINEER DBFL		**LOGGED BY**	C.H.

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples Ref. Number	Samples Sample Type	Samples Depth (m)
0.0	Machine / hand dug inspection pit for services - for all details see TP04 log							Inspection Pit blows			
1.0	Firm to stiff, brown to greyish brown, slightly sandy gravelly SILT/CLAY with some angular cobbles		1.20			1.20-1.40	0	133 blows			
	Obstruction - possible rock or boulder Final Depth 1.40m		1.40								
2.0											
3.0											

General Remarks

Installations

WS WITH DISCRETE SAMPLES 23311.GPJ IGSL.GDT 5/7/21

IGSL Limited

WINDOW SAMPLE RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**BH NO.**	**WS05**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	GROUND LEVEL (mOD)	**DATE DRILLED**	08/06/2021
		DATE LOGGED	08/06/2021
CLIENT ENGINEER	DBFL	**DRILLED BY**	C.Kavanagh
		LOGGED BY	C.H.

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples Ref. Number	Samples Sample Type	Samples Depth (m)
0.0	Machine / hand dug inspection pit for services - for all details see TP05 log							Inspection Pit blows			
1.0									AA149802	ENV	1.00-1.80
	Stiff, green/grey, slightly sandy very gravelly SILT/CLAY with many angular cobbles		1.10			1.10-1.80	100	280 blows			
	Obstruction - possible rock or boulder Final Depth 1.80m		1.80								
2.0											
3.0											

General Remarks

Installations

WS WITH DISCRETE SAMPLES 23311.GPJ IGSL.GDT 5/7/21

IGSL Limited

WINDOW SAMPLE RECORD

REPORT NUMBER 23311

CONTRACT Blanchardstown T.C.		**BH NO.**	**WS06**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	GROUND LEVEL (mOD)	**DATE DRILLED**	27/05/2021
		DATE LOGGED	27/05/2021
CLIENT		**DRILLED BY**	C.Kavanagh
ENGINEER DBFL		**LOGGED BY**	C.H.

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples Ref. Number	Samples Sample Type	Samples Depth (m)
0.0	Machine / hand dug inspection pit for services - for all details see TP06 log							Inspection Pit blows			
1.0									AA149800	ENV	1.00-2.00
	Firm to stiff, dark grey/grey sandy gravelly SILT/CLAY		1.20			1.20-2.00	100	302 blows			
	Dense, dark grey, sandy angular GRAVEL with angular cobbles (possible weathered rock)		1.50								
2.0	Final Depth 2.00m		2.00								
3.0											

General Remarks

Installations

IGSL Limited

WINDOW SAMPLE RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**BH NO.**	**WS07**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	GROUND LEVEL (mOD)	**DATE DRILLED**	27/05/2021
		DATE LOGGED	27/05/2021
CLIENT		**DRILLED BY**	C.Kavanagh
ENGINEER	DBFL	**LOGGED BY**	C.H.

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples Ref. Number	Samples Sample Type	Samples Depth (m)
0.0	Machine / hand dug inspection pit for services - for all details see TP07 log							Inspection Pit blows			
1.0									AA144821	ENV	1.00-2.00
	Firm to stiff, brown/grey mottled, very gravelly SILT/CLAY with many angular cobbles		1.20			1.20-2.00	90	322 blows			
2.0	Final Depth 2.00m		2.00								
3.0											

General Remarks

Installations

IGSL Limited

WINDOW SAMPLE RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**BH NO.**	**WS08**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	GROUND LEVEL (mOD)	**DATE DRILLED**	08/06/2021
		DATE LOGGED	08/06/2021
CLIENT		**DRILLED BY**	C.Kavanagh
ENGINEER	DBFL	**LOGGED BY**	C.H.

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples Ref. Number	Samples Sample Type	Samples Depth (m)
0.0	Machine / hand dug inspection pit for services - for all details see TP08 log							Inspection Pit blows			
1.0	Stiff, greyish brown, slightly sandy gravelly SILT/CLAY with some angular to subangular cobbles		0.95			0.95-1.10	100	147 blows	AA144809	ENV	1.00-1.10
	Obstruction - possible rock or boulder Final Depth 1.10m		1.10								
2.0											
3.0											

General Remarks

Installations

WS WITH DISCRETE SAMPLES 23311.GPJ IGSL.GDT 5/7/21

IGSL Limited

WINDOW SAMPLE RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**BH NO.**	**WS09**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	GROUND LEVEL (mOD)	**DATE DRILLED**	08/06/2021
		DATE LOGGED	08/06/2021
CLIENT ENGINEER	DBFL	**DRILLED BY**	C.Kavanagh
		LOGGED BY	C.H.

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples Ref. Number	Samples Sample Type	Samples Depth (m)
0.0	Machine / hand dug inspection pit for services - for all details see TP09 log							Inspection Pit blows			
1.0									AA144812	ENV	1.00-2.00
	Soft to firm, brown, very sandy gravelly CLAY with some subangular cobbles		1.20			1.20-2.00	60	126 blows			
2.0	Final Depth 2.10m		2.00								
3.0											

General Remarks

Installations

IGSL Limited

WINDOW SAMPLE RECORD

REPORT NUMBER 23311

CONTRACT Blanchardstown T.C.		**BH NO.**	**WS10**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	GROUND LEVEL (mOD)	**DATE DRILLED**	27/05/2021
		DATE LOGGED	27/05/2021
CLIENT		**DRILLED BY**	C.Kavanagh
ENGINEER DBFL		**LOGGED BY**	C.H.

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples Ref. Number	Samples Sample Type	Samples Depth (m)
0.0	Machine / hand dug inspection pit for services - for all details see TP10 log							Inspection Pit blows			
1.0									AA144814	ENV	1.00-2.00
	Firm, brown/grey mottled, sandy slightly gravelly SILT/CLAY with occasional cobbles		1.20			1.20-2.00	80	233 blows			
2.0	Final Depth 2.00m		2.00								
3.0											

General Remarks

Installations

IGSL Limited

WINDOW SAMPLE RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**BH NO.**	**WS11**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	GROUND LEVEL (mOD)	**DATE DRILLED**	27/05/2021
		DATE LOGGED	27/05/2021
CLIENT		**DRILLED BY**	C.Kavanagh
ENGINEER	DBFL	**LOGGED BY**	C.H.

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples Ref. Number	Samples Sample Type	Samples Depth (m)
0.0	Machine / hand dug inspection pit for services - for all details see TP11 log							Inspection Pit blows			
1.0	Firm to stiff, brown to greysih brown, slightly sandy gravelly SILT/CLAY with many angular cobbles		1.00			1.00-2.00	90	251 blows	AA144823	ENV	1.00-2.00
2.0	Final Depth 2.00m		2.00								
3.0											

General Remarks

Installations

WS WITH DISCRETE SAMPLES 23311.GPJ IGSL.GDT 5/7/21

IGSL Limited

WINDOW SAMPLE RECORD

REPORT NUMBER 23311

CONTRACT Blanchardstown T.C.		**BH NO.**	**WS12**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	GROUND LEVEL (mOD)	**DATE DRILLED**	08/06/2021
		DATE LOGGED	08/06/2021
CLIENT		**DRILLED BY**	C.Kavanagh
ENGINEER DBFL		**LOGGED BY**	C.H.

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples Ref. Number	Samples Sample Type	Samples Depth (m)
0.0	Machine / hand dug inspection pit for services - for all details see TP12 log							Inspection Pit blows			
1.0									AA144828	ENV	1.00-1.40
	Firm to stiff, brown, slightly sandy gravelly SILT/CLAY with some angular cobbles		1.20			1.20-1.40	100	161 blows			
	Obstruction - possible rock or boulder Final Depth 1.40m		1.40								
2.0											
3.0											

General Remarks

Installations

IGSL Limited

WINDOW SAMPLE RECORD

REPORT NUMBER 23311

CONTRACT Blanchardstown T.C.		**BH NO.**	**WS13**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	GROUND LEVEL (mOD)	**DATE DRILLED**	08/06/2021
		DATE LOGGED	08/06/2021
CLIENT		**DRILLED BY**	C.Kavanagh
ENGINEER DBFL		**LOGGED BY**	C.H.

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples Ref. Number	Samples Sample Type	Samples Depth (m)
0.0	Machine / hand dug inspection pit for services - for all details see TP13 log							Inspection Pit blows			
	Stiff, light brown/brown, slightly sandy gravelly SILT/CLAY with angular cobbles		0.85			0.85-1.10	20	210 blows			
1.0	Obstruction - possible rock or boulder Final Depth 1.10m		1.10								
2.0											
3.0											

General Remarks

Installations

IGSL Limited

WINDOW SAMPLE RECORD

REPORT NUMBER 23311

CONTRACT Blanchardstown T.C.		**BH NO.**	**WS14**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	GROUND LEVEL (mOD)	**DATE DRILLED**	29/06/2021
		DATE LOGGED	29/06/2021
CLIENT		**DRILLED BY**	C.Kavanagh
ENGINEER DBFL		**LOGGED BY**	J.C.

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples Ref. Number	Samples Sample Type	Samples Depth (m)
0.0	Machine / hand dug inspection pit for services - for all details see TP14 log							Inspection Pit blows			
1.0									AA169724	ENV B	1.00-1.60 1.00-1.60
	Firm, light brown mottled grey and black sandy very gravelly silty CLAY with occasional cobbles		1.20			1.20-1.60	100	149 blows			
	Obstruction - possible rock or boulder Final Depth 1.60m		1.60								
2.0											
3.0											

General Remarks

Installations

WS WITH DISCRETE SAMPLES 23311.GPJ IGSL.GDT 5/7/21

IGSL Limited

WINDOW SAMPLE RECORD

REPORT NUMBER 23311

CONTRACT Blanchardstown T.C.		**BH NO.**	**WS15**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	GROUND LEVEL (mOD)	**DATE DRILLED**	29/06/2021
		DATE LOGGED	29/06/2021
CLIENT		**DRILLED BY**	C.Kavanagh
ENGINEER DBFL		**LOGGED BY**	J.C.

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples Ref. Number	Samples Sample Type	Samples Depth (m)
0.0	Machine / hand dug inspection pit for services - for all details see TP15 log							Inspection Pit blows			
1.0									AA169726	ENV B	1.00-2.00 1.00-1.60
	Firm, greyish brown, sandy gravelly CLAY		1.20			1.20-2.00	100	168 blows			
	Medium dense, grey slightly clayey sandy GRAVEL		1.60						AA169727	B	1.60-2.00
2.0	Final Depth 2.00m		2.00								
3.0											

General Remarks

Installations

WS WITH DISCRETE SAMPLES 23311.GPJ IGSL.GDT 5/7/21

IGSL Limited

WINDOW SAMPLE RECORD

REPORT NUMBER 23311

CONTRACT Blanchardstown T.C.		**BH NO.**	**WS16**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	GROUND LEVEL (mOD)	**DATE DRILLED**	29/06/2021
		DATE LOGGED	29/06/2021
CLIENT		**DRILLED BY**	C.Kavanagh
ENGINEER DBFL		**LOGGED BY**	J.C.

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples Ref. Number	Samples Sample Type	Samples Depth (m)
0.0	Machine / hand dug inspection pit for services - for all details see TP16 log							Inspection Pit blows			
1.0	Firm to stiff, grey brown mottled, sandy very gravelly silty CLAY with some cobbles		1.10			1.10-1.50	50	177 blows	NA169729	ENV B	1.00-1.50 1.00-1.50
	Obstruction - possible rock or boulder Final Depth 1.50m		1.50								
2.0											
3.0											

General Remarks

Installations

WS WITH DISCRETE SAMPLES 23311.GPJ IGSL.GDT 5/7/21

IGSL Limited

WINDOW SAMPLE RECORD

REPORT NUMBER 23311

CONTRACT Blanchardstown T.C.		**BH NO.**	**WS17**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	GROUND LEVEL (mOD)	**DATE DRILLED**	29/06/2021
		DATE LOGGED	29/06/2021
CLIENT		**DRILLED BY**	C.Kavanagh
ENGINEER DBFL		**LOGGED BY**	J.C.

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples Ref. Number	Samples Sample Type	Samples Depth (m)
0.0	Machine / hand dug inspection pit for services - for all details see TP17 log							Inspection Pit blows			
1.0										ENV	1.00-1.40
	Firm to stiff, brown, slightly sandy gravelly CLAY with some subangular to subrounded cobbles		1.20			1.20-1.40	100	183 blows			
	Obstruction - possible rock or boulder Final Depth 1.40m		1.40								
2.0											
3.0											

General Remarks

Installations

IGSL Limited

WINDOW SAMPLE RECORD

REPORT NUMBER 23311

CONTRACT Blanchardstown T.C.		**BH NO.**	**WS18**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	GROUND LEVEL (mOD)	**DATE DRILLED**	29/06/2021
		DATE LOGGED	29/06/2021
CLIENT		**DRILLED BY**	C.Kavanagh
ENGINEER DBFL		**LOGGED BY**	J. Condon

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples Ref. Number	Samples Sample Type	Samples Depth (m)
0.0	MADE GROUND - Tar Machine / hand dug inspection pit for services - for all details see TP18 log MADE GROUND comprised of firm brownish grey sandy very gravelly CLAY.		0.10					Inspection Pit blows			
1.0										ENV	1.00-2.00
	Firm to stiff brown sandy gravelly CLAY		1.20			1.20-2.00	100	190 blows			
	Firm to stiff brown sandy gravelly CLAY		1.40						AA153522	B	1.40-2.00
2.0	Final Depth 2.00m		2.00								
3.0											

General Remarks

Installations

WS WITH DISCRETE SAMPLES 23311.GPJ IGSL.GDT 5/7/21

IGSL Limited

WINDOW SAMPLE RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**BH NO.**	**WS19**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	GROUND LEVEL (mOD)	**DATE DRILLED**	29/06/2021
		DATE LOGGED	29/06/2021
CLIENT ENGINEER	DBFL	**DRILLED BY**	C.Kavanagh
		LOGGED BY	J. Condon

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples Ref. Number	Samples Sample Type	Samples Depth (m)
0.0	MADE GROUND - Tar Machine / hand dug inspection pit for services - for all details see TP19 log MADE GROUND comprised of soft to firm brownish grey sandy very gravelly CLAY.		0.10					Inspection Pit blows			
	Soft to firm greyish brown sandy gravelly CLAY.		0.90							ENV	1.00-2.00
1.0	Soft to firm, greyish brown, sandy gravelly CLAY		1.20			1.20-2.00	100	85 blows	AA153524	B	1.20-1.80
	Soft to firm brownish grey sandy gravelly CLAY. (Excess water from 2.3m)		1.80						AA153525	B	1.80-3.00
2.0						2.00-3.00	90	138 blows			
	Soft to firm brownish grey vry sandy very gravelly CLAY.		2.70								
3.0	Final Depth 3.00m		3.00								

General Remarks

Installations

WS WITH DISCRETE SAMPLES 23311.GPJ IGSL.GDT 5/7/21

IGSL Limited

WINDOW SAMPLE RECORD

REPORT NUMBER 23311

CONTRACT Blanchardstown T.C.		**BH NO.**	**WS20**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	GROUND LEVEL (mOD)	**DATE DRILLED**	29/06/2021
		DATE LOGGED	29/06/2021
CLIENT		**DRILLED BY**	C.Kavanagh
ENGINEER DBFL		**LOGGED BY**	J. Condon

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples Ref. Number	Samples Sample Type	Samples Depth (m)
0.0	MADE GROUND - Tar Machine / hand dug inspection pit for services - for all details see TP20 log		0.10					Inspection Pit blows			
	MADE GROUND comprised of firm brownish grey sandy very gravelly CLAY.										
1.0										ENV	1.00-1.60
	Firm, brown, sandy gravelly CLAY with some cobbles		1.20			1.20-1.60	100	164 blows			
	MADE GROUND comprised of firm brown sandy gravelly CLAY.		1.30								
	Obstruction - possible rock or boulder Final Depth 1.60m		1.60								
2.0											
3.0											

General Remarks

Installations

IGSL Limited

WINDOW SAMPLE RECORD

REPORT NUMBER 23311

CONTRACT	Blanchardstown T.C.	**BH NO.**	**WS21**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	GROUND LEVEL (mOD)	**DATE DRILLED**	29/06/2021
		DATE LOGGED	29/06/2021
CLIENT		**DRILLED BY**	C.Kavanagh
ENGINEER	DBFL	**LOGGED BY**	J. Condon

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples Ref. Number	Samples Sample Type	Samples Depth (m)
0.0	MADE GROUND - Tar Machine / hand dug inspection pit for services - for all details see TP21 log		0.10					Inspection Pit blows			
	MADE GROUND comprised of firm brownish grey sandy very gravelly CLAY.										
1.0										ENV	1.00-1.60
	Possible weathered rock - MUDDY LIMESTONE recovered as dark grey clayey GRAVEL.		1.10						AA153528	B	1.10-1.60
	Dense, grey, clayey angular GRAVEL with angular cobbles (possible weathered rock)		1.20			1.20-1.60	100	189 blows			
	Obstruction - possible rock or boulder Final Depth 1.60m		1.60								
2.0											
3.0											

General Remarks

Installations

WS WITH DISCRETE SAMPLES 23311.GPJ IGSL.GDT 5/7/21

IGSL Limited

WINDOW SAMPLE RECORD

REPORT NUMBER 23311

CONTRACT Blanchardstown T.C.		**BH NO.**	**WS22**
		SHEET	Sheet 1 of 1
CO-ORDINATES(_)	GROUND LEVEL (mOD)	**DATE DRILLED**	29/06/2021
		DATE LOGGED	29/06/2021
CLIENT		**DRILLED BY**	C.Kavanagh
ENGINEER DBFL		**LOGGED BY**	J. Condon

Depth (m)	Geotechnical Description	Legend	Depth (m)	Elevation	Water Strike	Depth of Sample Run (m)	Recovery (%)	Blowcount	Samples Ref. Number	Samples Sample Type	Samples Depth (m)
0.0	Machine / hand dug inspection pit for services - for all details see TP22 log							Inspection Pit blows			
1.0										ENV	1.00-1.50
	Firm to stiff, sandy gravelly silty CLAY with cobbles		1.20			1.20-1.50	100	159 blows			
	Obstruction - possible rock or boulder Final Depth 1.50m		1.50								
2.0											
3.0											

General Remarks

Installations

Appendix 2

Laboratory Reports

eurofins | Chemtest
Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

UKAS TESTING 2183

Final Report

Report No.:	21-21171-1		
Initial Date of Issue:	01-Jul-2021		
Client	IGSL		
Client Address:	M7 Business Park Naas County Kildare Ireland		
Contact(s):	Darren Keogh		
Project	23311 Blanchardstown TC PRS Project (DBFL)		
Quotation No.:	Q20-19951	**Date Received:**	22-Jun-2021
Order No.:		**Date Instructed:**	22-Jun-2021
No. of Samples:	19		
Turnaround (Wkdays):	7	**Results Due:**	30-Jun-2021
Date Approved:	01-Jul-2021	**Subcon Results Due:**	30-Jun-2021

Approved By:

Details: Glynn Harvey, Technical Manager

Results - Leachate

Project: 23311 Blanchardstown TC PRS Project (DBFL)

Client: IGSL					**Chemtest Job No.:**	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171
Quotation No.: Q20-19951					**Chemtest Sample ID.:**	1225637	1225638	1225639	1225640	1225641	1225642	1225643	1225644	1225645	1225646	1225647	1225648
Order No.:					Client Sample Ref.:	1-2	2-1	2-2	3-1	4-1	5-1	6-1	6-2	7-1	7-2	8-1	9-1
					Sample Location:	1	2	2	3	4	5	6	6	7	7	8	9
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
					Bottom Depth (m):	2.00	1.00	2.00	1.00	1.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00
Determinand	**Accred.**	**SOP**	**Type**	**Units**	**LOD**												
pH	U	1010	10:1		N/A	9.2	8.2	8.9	8.8	8.6	8.3	8.4	8.5	8.5	8.5	8.6	8.4
Ammonium	U	1220	10:1	mg/l	0.050	0.056	0.13	0.091	0.091	0.19	0.12	0.15	0.22	0.12	0.083	0.15	0.051
Ammonium	N	1220	10:1	mg/kg	0.10	1.0	1.4	1.3	1.2	2.3	1.3	1.7	2.6	1.4	0.97	1.8	0.58
Boron (Dissolved)	U	1455	10:1	mg/kg	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo[j]fluoranthene	N	1800	10:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010

Results - Leachate

Project: 23311 Blanchardstown TC PRS Project (DBFL)

Client: IGSL					**Chemtest Job No.:**	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171
Quotation No.: Q20-19951					**Chemtest Sample ID.:**	1225649	1225650	1225651	1225652	1225653	1225654	1225655
Order No.:					Client Sample Ref.:	10-2	11-1	11-2	12-1	13-1	1-1	10-1
					Sample Location:	10	11	11	12	13	1	10
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	1.00	0.00	1.00	0.00	0.00	0.50	0.60
					Bottom Depth (m):	2.00	1.00	2.00	1.00	1.00	1.00	1.00
Determinand	**Accred.**	**SOP**	**Type**	**Units**	**LOD**							
pH	U	1010	10:1		N/A	8.5	8.7	8.8	8.7	8.6	8.6	8.6
Ammonium	U	1220	10:1	mg/l	0.050	0.092	0.18	0.18	0.11	0.11	0.089	0.091
Ammonium	N	1220	10:1	mg/kg	0.10	1.1	2.3	2.4	1.4	1.3	1.1	1.1
Boron (Dissolved)	U	1455	10:1	mg/kg	0.01	< 0.01	< 0.01	0.14	< 0.01	< 0.01	< 0.01	< 0.01
Benzo[j]fluoranthene	N	1800	10:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010

Results - Soil

Project: 23311 Blanchardstown TC PRS Project (DBFL)

Client: IGSL													
Quotation No.: Q20-19951				Chemtest Job No.:	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171
Order No.:				Chemtest Sample ID.:	1225637	1225638	1225639	1225640	1225641	1225642	1225643	1225644	1225645
				Client Sample Ref.:	1-2	2-1	2-2	3-1	4-1	5-1	6-1	6-2	7-1
				Sample Location:	1	2	2	3	4	5	6	6	7
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00
				Bottom Depth (m):	2.00	1.00	2.00	1.00	1.00	1.00	1.00	2.00	1.00
				Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
ACM Type	U	2192		N/A	-	-	-	-	-	-	-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	7.1	7.4	6.8	9.4	17	13	8.4	9.3	9.9
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	[A] 0.56	[A] < 0.40	[A] < 0.40	[A] < 0.40	[A] < 0.40	[A] < 0.40	[A] < 0.40	[A] < 0.40	[A] < 0.40
Sulphur (Elemental)	U	2180	mg/kg	1.0	[A] 8.4	[A] 1.5	[A] 3.0	[A] < 1.0	[A] < 1.0	[A] 3.1	[A] 1.2	[A] < 1.0	[A] < 1.0
Cyanide (Total)	U	2300	mg/kg	0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	[A] 1.2	[A] 1.2	[A] 1.2	[A] 1.2	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50
Sulphate (Acid Soluble)	U	2430	%	0.010	[A] 0.034	[A] 0.037	[A] 0.098	[A] 0.052	[A] 0.028	[A] 0.20	[A] 0.073	[A] 0.037	[A] 0.051
Arsenic	U	2450	mg/kg	1.0	15	16	21	9.8	79	19	25	26	19
Barium	U	2450	mg/kg	10	43	33	120	25	40	110	71	17	37
Cadmium	U	2450	mg/kg	0.10	0.44	1.3	1.5	1.0	0.99	1.2	1.4	1.2	0.42
Chromium	U	2450	mg/kg	1.0	30	16	18	10	34	22	21	28	40
Molybdenum	U	2450	mg/kg	2.0	< 2.0	< 2.0	4.1	< 2.0	3.4	2.1	< 2.0	< 2.0	< 2.0
Antimony	N	2450	mg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	2.4	2.0	< 2.0	< 2.0	< 2.0
Copper	U	2450	mg/kg	0.50	28	23	31	19	32	27	25	31	38
Mercury	U	2450	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.11	< 0.10	< 0.10	< 0.10
Nickel	U	2450	mg/kg	0.50	67	42	58	32	87	48	65	77	84
Lead	U	2450	mg/kg	0.50	37	18	18	11	50	44	24	29	28
Selenium	U	2450	mg/kg	0.20	0.62	0.65	2.1	0.32	0.56	0.40	0.40	1.4	0.27
Zinc	U	2450	mg/kg	0.50	95	56	85	48	150	98	160	350	98
Chromium (Trivalent)	N	2490	mg/kg	1.0	30	16	18	10	34	22	21	28	40
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Mineral Oil (TPH Calculation)	N	2670	mg/kg	10	< 10	< 10	< 10	< 10	440	< 10	< 10	< 10	< 10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] 16	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] 410	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] 20	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] 440	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0

Results - Soil

Project: 23311 Blanchardstown TC PRS Project (DBFL)

Client: IGSL													
				Chemtest Job No.:	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171
Quotation No.: Q20-19951				Chemtest Sample ID.:	1225637	1225638	1225639	1225640	1225641	1225642	1225643	1225644	1225645
Order No.:				Client Sample Ref.:	1-2	2-1	2-2	3-1	4-1	5-1	6-1	6-2	7-1
				Sample Location:	1	2	2	3	4	5	6	6	7
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00
				Bottom Depth (m):	2.00	1.00	2.00	1.00	1.00	1.00	1.00	2.00	1.00
				Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] 3.4	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] 120	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] 130	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	[A] < 10	[A] < 10	[A] < 10	[A] < 10	[A] 570	[A] < 10	[A] < 10	[A] < 10	[A] < 10
Benzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] 1.4
Toluene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] 9.4
Ethylbenzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
m & p-Xylene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
o-Xylene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Naphthalene	N	2800	mg/kg	0.010	[A] 0.54	[A] 0.043	[A] 0.15	[A] 0.090	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Acenaphthylene	N	2800	mg/kg	0.010	[A] 0.086	[A] 0.016	[A] 0.014	[A] 0.020	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Acenaphthene	N	2800	mg/kg	0.010	[A] 0.75	[A] 0.030	[A] 0.038	[A] 0.10	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Fluorene	N	2800	mg/kg	0.010	[A] 0.73	[A] 0.051	[A] 0.069	[A] 0.14	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Phenanthrene	N	2800	mg/kg	0.010	[A] 5.6	[A] 0.29	[A] 0.34	[A] 0.40	[A] < 0.010	[A] 0.10	[A] < 0.010	[A] 0.040	[A] < 0.010
Anthracene	N	2800	mg/kg	0.010	[A] 1.4	[A] 0.11	[A] 0.047	[A] 0.19	[A] < 0.010	[A] 0.020	[A] < 0.010	[A] < 0.010	[A] < 0.010
Fluoranthene	N	2800	mg/kg	0.010	[A] 10	[A] 0.57	[A] 0.28	[A] 0.42	[A] < 0.010	[A] 0.090	[A] < 0.010	[A] 0.040	[A] < 0.010
Pyrene	N	2800	mg/kg	0.010	[A] 7.4	[A] 0.48	[A] 0.28	[A] 0.34	[A] < 0.010	[A] 0.080	[A] < 0.010	[A] 0.040	[A] < 0.010
Benzo[a]anthracene	N	2800	mg/kg	0.010	[A] 5.1	[A] 0.62	[A] 0.19	[A] 0.22	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Chrysene	N	2800	mg/kg	0.010	[A] 5.0	[A] 0.48	[A] 0.24	[A] 0.22	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Benzo[b]fluoranthene	N	2800	mg/kg	0.010	[A] 8.4	[A] 0.84	[A] 0.36	[A] 0.28	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Benzo[k]fluoranthene	N	2800	mg/kg	0.010	[A] 3.6	[A] 0.69	[A] 0.16	[A] 0.15	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Benzo[a]pyrene	N	2800	mg/kg	0.010	[A] 8.7	[A] 0.85	[A] 0.34	[A] 0.29	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Indeno(1,2,3-c,d)Pyrene	N	2800	mg/kg	0.010	[A] 7.5	[A] 1.1	[A] 0.34	[A] 0.35	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.010	[A] 0.98	[A] 0.49	[A] 0.082	[A] 0.30	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Benzo[g,h,i]perylene	N	2800	mg/kg	0.010	[A] 5.1	[A] 0.65	[A] 0.22	[A] 0.25	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Coronene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Total Of 17 PAH's	N	2800	mg/kg	0.20	[A] 71	[A] 7.3	[A] 3.2	[A] 3.8	[A] < 0.20	[A] 0.29	[A] < 0.20	[A] < 0.20	[A] < 0.20
PCB 28	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
PCB 52	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
PCB 90+101	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
PCB 118	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
PCB 153	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
PCB 138	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
PCB 180	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010

Results - Soil

Project: 23311 Blanchardstown TC PRS Project (DBFL)

Client: IGSL				**Chemtest Job No.:**	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171
Quotation No.: Q20-19951				**Chemtest Sample ID.:**	1225637	1225638	1225639	1225640	1225641	1225642	1225643	1225644	1225645
Order No.:				Client Sample Ref.:	1-2	2-1	2-2	3-1	4-1	5-1	6-1	6-2	7-1
				Sample Location:	1	2	2	3	4	5	6	6	7
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00
				Bottom Depth (m):	2.00	1.00	2.00	1.00	1.00	1.00	1.00	2.00	1.00
				Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Total PCBs (7 congeners)	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
Total Phenols	U	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: 23311 Blanchardstown TC PRS Project (DBFL)

Client: IGSL				Chemtest Job No.:	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171
Quotation No.: Q20-19951				Chemtest Sample ID.:	1225646	1225647	1225648	1225649	1225650	1225651	1225652	1225653	1225654
Order No.:				Client Sample Ref.:	7-2	8-1	9-1	10-2	11-1	11-2	12-1	13-1	1-1
				Sample Location:	7	8	9	10	11	11	12	13	1
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.50
				Bottom Depth (m):	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00
				Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	IN-TRAN-D
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
ACM Type	U	2192		N/A	-	-	-	-	-	-	-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	8.6	11	14	8.8	7.3	7.6	7.9	9.6	14
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	[A] < 0.40	[A] 0.41	[A] < 0.40	[A] < 0.40	[A] < 0.40	[A] < 0.40	[A] 2.7	[A] < 0.40	[A] 0.47
Sulphur (Elemental)	U	2180	mg/kg	1.0	[A] 1.3	[A] 1.5	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] 1.7	[A] 1.4	[A] < 1.0	[A] < 1.0
Cyanide (Total)	U	2300	mg/kg	0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] 1.2	[A] 1.2	[A] 1.2	[A] 1.1
Sulphate (Acid Soluble)	U	2430	%	0.010	[A] 0.036	[A] 0.040	[A] 0.082	[A] 0.044	[A] 0.025	[A] 0.074	[A] 0.069	[A] 0.040	[A] 0.15
Arsenic	U	2450	mg/kg	1.0	16	12	17	16	19	15	14	16	27
Barium	U	2450	mg/kg	10	43	35	33	63	51	71	52	44	89
Cadmium	U	2450	mg/kg	0.10	0.33	0.19	0.65	1.5	1.5	0.79	1.1	1.5	2.3
Chromium	U	2450	mg/kg	1.0	37	31	32	20	17	13	22	15	21
Molybdenum	U	2450	mg/kg	2.0	< 2.0	< 2.0	< 2.0	3.0	3.0	2.9	2.3	2.5	4.4
Antimony	N	2450	mg/kg	2.0	< 2.0	< 2.0	< 2.0	4.6	2.8	< 2.0	< 2.0	< 2.0	< 2.0
Copper	U	2450	mg/kg	0.50	33	20	32	28	32	21	22	27	37
Mercury	U	2450	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	U	2450	mg/kg	0.50	79	65	70	55	56	47	46	46	61
Lead	U	2450	mg/kg	0.50	31	25	26	29	21	20	15	28	19
Selenium	U	2450	mg/kg	0.20	0.40	0.20	0.24	< 0.20	1.7	0.78	0.72	< 0.20	1.9
Zinc	U	2450	mg/kg	0.50	140	92	110	79	86	72	110	62	110
Chromium (Trivalent)	N	2490	mg/kg	1.0	37	31	32	20	17	13	22	15	21
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Mineral Oil (TPH Calculation)	N	2670	mg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0

Results - Soil

Project: 23311 Blanchardstown TC PRS Project (DBFL)

Client: IGSL													
Quotation No.: Q20-19951				Chemtest Job No.:	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171
Order No.:				Chemtest Sample ID.:	1225646	1225647	1225648	1225649	1225650	1225651	1225652	1225653	1225654
				Client Sample Ref.:	7-2	8-1	9-1	10-2	11-1	11-2	12-1	13-1	1-1
				Sample Location:	7	8	9	10	11	11	12	13	1
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.50
				Bottom Depth (m):	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00
				Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	IN-TRAN-D
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	[A] < 10	[A] < 10	[A] < 10	[A] < 10	[A] < 10	[A] < 10	[A] < 10	[A] < 10	[A] < 10
Benzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Toluene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] 1.9
Ethylbenzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
m & p-Xylene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
o-Xylene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Naphthalene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] 0.11	[A] < 0.010	[A] < 0.010
Acenaphthylene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] 0.030	[A] < 0.010	[A] < 0.010
Acenaphthene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] 0.090	[A] < 0.010	[A] < 0.010
Fluorene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] 0.13	[A] < 0.010	[A] < 0.010
Phenanthrene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] 0.42	[A] < 0.010	[A] < 0.010
Anthracene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] 0.13	[A] < 0.010	[A] < 0.010
Fluoranthene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] 0.13	[A] 0.31	[A] 0.13	[A] 0.15
Pyrene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] 0.12	[A] 0.25	[A] 0.13	[A] 0.23
Benzo[a]anthracene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] 0.070	[A] 0.14	[A] < 0.010	[A] < 0.010
Chrysene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] 0.080	[A] 0.12	[A] < 0.010	[A] < 0.010
Benzo[b]fluoranthene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] 0.12	[A] < 0.010	[A] < 0.010
Benzo[k]fluoranthene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] 0.090	[A] < 0.010	[A] < 0.010
Benzo[a]pyrene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] 0.16	[A] < 0.010	[A] < 0.010
Indeno(1,2,3-c,d)Pyrene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] 0.10	[A] < 0.010	[A] < 0.010
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Benzo[g,h,i]perylene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] 0.070	[A] < 0.010	[A] < 0.010
Coronene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Total Of 17 PAH's	N	2800	mg/kg	0.20	[A] < 0.20	[A] < 0.20	[A] < 0.20	[A] < 0.20	[A] < 0.20	[A] 0.40	[A] 2.3	[A] 0.26	[A] 0.38
PCB 28	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
PCB 52	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
PCB 90+101	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
PCB 118	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
PCB 153	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
PCB 138	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
PCB 180	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010

Results - Soil

Project: 23311 Blanchardstown TC PRS Project (DBFL)

Client: IGSL				Chemtest Job No.:	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171	21-21171
Quotation No.: Q20-19951				Chemtest Sample ID.:	1225646	1225647	1225648	1225649	1225650	1225651	1225652	1225653	1225654
Order No.:				Client Sample Ref.:	7-2	8-1	9-1	10-2	11-1	11-2	12-1	13-1	1-1
				Sample Location:	7	8	9	10	11	11	12	13	1
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.50
				Bottom Depth (m):	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00
				Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	IN-TRAN-D
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Total PCBs (7 congeners)	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
Total Phenols	U	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: 23311 Blanchardstown TC PRS Project (DBFL)

Client: IGSL					
				Chemtest Job No.:	21-21171
Quotation No.: Q20-19951				Chemtest Sample ID.:	1225655
Order No.:				Client Sample Ref.:	10-1
				Sample Location:	10
				Sample Type:	SOIL
				Top Depth (m):	0.60
				Bottom Depth (m):	1.00
				Asbestos Lab:	IN-TRAN-D
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
ACM Type	U	2192		N/A	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected
Moisture	N	2030	%	0.020	10
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	[A] < 0.40
Sulphur (Elemental)	U	2180	mg/kg	1.0	[A] 2.0
Cyanide (Total)	U	2300	mg/kg	0.50	[A] < 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	[A] 6.1
Sulphate (Acid Soluble)	U	2430	%	0.010	[A] 0.19
Arsenic	U	2450	mg/kg	1.0	13
Barium	U	2450	mg/kg	10	41
Cadmium	U	2450	mg/kg	0.10	1.2
Chromium	U	2450	mg/kg	1.0	10
Molybdenum	U	2450	mg/kg	2.0	2.2
Antimony	N	2450	mg/kg	2.0	< 2.0
Copper	U	2450	mg/kg	0.50	19
Mercury	U	2450	mg/kg	0.10	< 0.10
Nickel	U	2450	mg/kg	0.50	31
Lead	U	2450	mg/kg	0.50	8.8
Selenium	U	2450	mg/kg	0.20	1.1
Zinc	U	2450	mg/kg	0.50	57
Chromium (Trivalent)	N	2490	mg/kg	1.0	10
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50
Mineral Oil (TPH Calculation)	N	2670	mg/kg	10	< 10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	[A] < 1.0

Results - Soil

Project: 23311 Blanchardstown TC PRS Project (DBFL)

Client: IGSL				**Chemtest Job No.:**	21-21171
Quotation No.: Q20-19951				**Chemtest Sample ID.:**	1225655
Order No.:				Client Sample Ref.:	10-1
				Sample Location:	10
				Sample Type:	SOIL
				Top Depth (m):	0.60
				Bottom Depth (m):	1.00
				Asbestos Lab:	IN-TRAN-D
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	[A] < 10
Benzene	U	2760	µg/kg	1.0	[A] < 1.0
Toluene	U	2760	µg/kg	1.0	[A] < 1.0
Ethylbenzene	U	2760	µg/kg	1.0	[A] < 1.0
m & p-Xylene	U	2760	µg/kg	1.0	[A] < 1.0
o-Xylene	U	2760	µg/kg	1.0	[A] < 1.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	[A] < 1.0
Naphthalene	N	2800	mg/kg	0.010	[A] < 0.010
Acenaphthylene	N	2800	mg/kg	0.010	[A] < 0.010
Acenaphthene	N	2800	mg/kg	0.010	[A] < 0.010
Fluorene	N	2800	mg/kg	0.010	[A] < 0.010
Phenanthrene	N	2800	mg/kg	0.010	[A] < 0.010
Anthracene	N	2800	mg/kg	0.010	[A] < 0.010
Fluoranthene	N	2800	mg/kg	0.010	[A] < 0.010
Pyrene	N	2800	mg/kg	0.010	[A] < 0.010
Benzo[a]anthracene	N	2800	mg/kg	0.010	[A] < 0.010
Chrysene	N	2800	mg/kg	0.010	[A] < 0.010
Benzo[b]fluoranthene	N	2800	mg/kg	0.010	[A] < 0.010
Benzo[k]fluoranthene	N	2800	mg/kg	0.010	[A] < 0.010
Benzo[a]pyrene	N	2800	mg/kg	0.010	[A] < 0.010
Indeno(1,2,3-c,d)Pyrene	N	2800	mg/kg	0.010	[A] < 0.010
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.010	[A] < 0.010
Benzo[g,h,i]perylene	N	2800	mg/kg	0.010	[A] < 0.010
Coronene	N	2800	mg/kg	0.010	[A] < 0.010
Total Of 17 PAH's	N	2800	mg/kg	0.20	[A] < 0.20
PCB 28	N	2815	mg/kg	0.0010	[A] < 0.0010
PCB 52	N	2815	mg/kg	0.0010	[A] < 0.0010
PCB 90+101	N	2815	mg/kg	0.0010	[A] < 0.0010
PCB 118	N	2815	mg/kg	0.0010	[A] < 0.0010
PCB 153	N	2815	mg/kg	0.0010	[A] < 0.0010
PCB 138	N	2815	mg/kg	0.0010	[A] < 0.0010
PCB 180	N	2815	mg/kg	0.0010	[A] < 0.0010

Results - Soil

Project: 23311 Blanchardstown TC PRS Project (DBFL)

Client: IGSL				**Chemtest Job No.:**	21-21171
Quotation No.: Q20-19951				**Chemtest Sample ID.:**	1225655
Order No.:				Client Sample Ref.:	10-1
				Sample Location:	10
				Sample Type:	SOIL
				Top Depth (m):	0.60
				Bottom Depth (m):	1.00
				Asbestos Lab:	IN-TRAN-D
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Total PCBs (7 congeners)	N	2815	mg/kg	0.0010	[A] < 0.0010
Total Phenols	U	2920	mg/kg	0.10	< 0.10

Results - Single Stage WAC

Project: 23311 Blanchardstown TC PRS Project (DBFL)

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-21171						
Chemtest Sample ID:	1225637						
Sample Ref:	1-2						
Sample ID:							
Sample Location:	1						
Top Depth(m):	1.00						
Bottom Depth(m):	2.00						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] 1.1	3	5	6
Loss On Ignition	2610	U	%	3.2	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] 71	100	--	--
pH	2010	U		8.7	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.029	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	0.0003	0.0033	0.5	2	25
Barium	1455	U	< 0.005	< 0.0005	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	0.011	0.11	0.5	10	70
Copper	1455	U	0.0018	0.018	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.0006	0.0060	0.5	10	30
Nickel	1455	U	0.0048	0.048	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0005	0.06	0.7	5
Selenium	1455	U	< 0.0005	< 0.0005	0.1	0.5	7
Zinc	1455	U	< 0.003	< 0.003	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.088	< 1.0	10	150	500
Sulphate	1220	U	1.3	13	1000	20000	50000
Total Dissolved Solids	1020	N	32	320	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	33	330	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	7.1

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 23311 Blanchardstown TC PRS Project (DBFL)

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-21171						
Chemtest Sample ID:	1225638						
Sample Ref:	2-1						
Sample ID:							
Sample Location:	2						
Top Depth(m):	0.00						
Bottom Depth(m):	1.00						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] 0.40	3	5	6
Loss On Ignition	2610	U	%	1.9	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] 7.3	100	--	--
pH	2010	U		8.6	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.034	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	< 0.0002	< 0.0002	0.5	2	25
Barium	1455	U	< 0.005	< 0.0005	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	0.0095	0.095	0.5	10	70
Copper	1455	U	0.0024	0.024	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.0004	0.0044	0.5	10	30
Nickel	1455	U	0.0042	0.042	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0005	0.06	0.7	5
Selenium	1455	U	< 0.0005	< 0.0005	0.1	0.5	7
Zinc	1455	U	< 0.003	< 0.003	4	50	200
Chloride	1220	U	1.1	11	800	15000	25000
Fluoride	1220	U	0.085	< 1.0	10	150	500
Sulphate	1220	U	4.6	46	1000	20000	50000
Total Dissolved Solids	1020	N	30	300	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	4.0	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	7.4

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 23311 Blanchardstown TC PRS Project (DBFL)

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-21171						
Chemtest Sample ID:	1225639						
Sample Ref:	2-2						
Sample ID:							
Sample Location:	2						
Top Depth(m):	1.00						
Bottom Depth(m):	2.00						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] 0.61	3	5	6
Loss On Ignition	2610	U	%	2.6	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] 3.2	100	--	--
pH	2010	U		8.7	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.050	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	< 0.0002	< 0.0002	0.5	2	25
Barium	1455	U	0.021	0.21	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	0.0089	0.089	0.5	10	70
Copper	1455	U	0.0010	0.010	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.0082	0.082	0.5	10	30
Nickel	1455	U	0.0040	0.040	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0005	0.06	0.7	5
Selenium	1455	U	0.0024	0.024	0.1	0.5	7
Zinc	1455	U	0.004	0.037	4	50	200
Chloride	1220	U	1.1	11	800	15000	25000
Fluoride	1220	U	0.26	2.6	10	150	500
Sulphate	1220	U	23	230	1000	20000	50000
Total Dissolved Solids	1020	N	72	720	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	4.5	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	6.8

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 23311 Blanchardstown TC PRS Project (DBFL)

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-21171						
Chemtest Sample ID:	1225640						
Sample Ref:	3-1						
Sample ID:							
Sample Location:	3						
Top Depth(m):	0.00						
Bottom Depth(m):	1.00						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] 0.30	3	5	6
Loss On Ignition	2610	U	%	2.7	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] 3.8	100	--	--
pH	2010	U		8.6	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.038	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	< 0.0002	< 0.0002	0.5	2	25
Barium	1455	U	< 0.005	< 0.0005	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	0.0099	0.099	0.5	10	70
Copper	1455	U	0.0007	0.0075	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.0044	0.044	0.5	10	30
Nickel	1455	U	0.0041	0.041	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0005	0.06	0.7	5
Selenium	1455	U	0.0007	0.0070	0.1	0.5	7
Zinc	1455	U	< 0.003	< 0.003	4	50	200
Chloride	1220	U	1.4	14	800	15000	25000
Fluoride	1220	U	0.35	3.5	10	150	500
Sulphate	1220	U	19	190	1000	20000	50000
Total Dissolved Solids	1020	N	78	780	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	4.5	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	9.4

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 23311 Blanchardstown TC PRS Project (DBFL)

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-21171						
Chemtest Sample ID:	1225641						
Sample Ref:	4-1						
Sample ID:							
Sample Location:	4						
Top Depth(m):	0.00						
Bottom Depth(m):	1.00						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] 0.46	3	5	6
Loss On Ignition	2610	U	%	3.7	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] 570	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		8.2	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.013	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	0.0003	0.0026	0.5	2	25
Barium	1455	U	< 0.005	< 0.0005	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	0.010	0.10	0.5	10	70
Copper	1455	U	0.0010	0.0096	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.0022	0.022	0.5	10	30
Nickel	1455	U	0.0045	0.045	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0005	0.06	0.7	5
Selenium	1455	U	< 0.0005	< 0.0005	0.1	0.5	7
Zinc	1455	U	< 0.003	< 0.003	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.55	5.5	10	150	500
Sulphate	1220	U	6.6	66	1000	20000	50000
Total Dissolved Solids	1020	N	72	710	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	4.0	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	17

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 23311 Blanchardstown TC PRS Project (DBFL)

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-21171						
Chemtest Sample ID:	1225642						
Sample Ref:	5-1						
Sample ID:							
Sample Location:	5						
Top Depth(m):	0.00						
Bottom Depth(m):	1.00						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] 1.4	3	5	6
Loss On Ignition	2610	U	%	4.9	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] 0.29	100	--	--
pH	2010	U		8.5	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.0070	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	0.0008	0.0081	0.5	2	25
Barium	1455	U	0.009	0.095	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	0.010	0.10	0.5	10	70
Copper	1455	U	0.0016	0.016	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.0019	0.019	0.5	10	30
Nickel	1455	U	0.0042	0.042	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0005	0.06	0.7	5
Selenium	1455	U	0.0006	0.0060	0.1	0.5	7
Zinc	1455	U	< 0.003	< 0.003	4	50	200
Chloride	1220	U	3.6	36	800	15000	25000
Fluoride	1220	U	0.31	3.1	10	150	500
Sulphate	1220	U	77	770	1000	20000	50000
Total Dissolved Solids	1020	N	180	1800	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	4.8	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	13

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 23311 Blanchardstown TC PRS Project (DBFL)

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-21171						
Chemtest Sample ID:	1225643						
Sample Ref:	6-1						
Sample ID:							
Sample Location:	6						
Top Depth(m):	0.00						
Bottom Depth(m):	1.00						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] 0.31	3	5	6
Loss On Ignition	2610	U	%	2.5	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		8.7	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.017	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	< 0.0002	< 0.0002	0.5	2	25
Barium	1455	U	< 0.005	< 0.0005	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	0.011	0.11	0.5	10	70
Copper	1455	U	0.0008	0.0081	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.0020	0.020	0.5	10	30
Nickel	1455	U	0.0044	0.044	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0005	0.06	0.7	5
Selenium	1455	U	< 0.0005	< 0.0005	0.1	0.5	7
Zinc	1455	U	< 0.003	< 0.003	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.37	3.7	10	150	500
Sulphate	1220	U	19	190	1000	20000	50000
Total Dissolved Solids	1020	N	91	910	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	4.8	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	8.4

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 23311 Blanchardstown TC PRS Project (DBFL)

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-21171						
Chemtest Sample ID:	1225644						
Sample Ref:	6-2						
Sample ID:							
Sample Location:	6						
Top Depth(m):	1.00						
Bottom Depth(m):	2.00						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] 0.33	3	5	6
Loss On Ignition	2610	U	%	3.3	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		8.7	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.026	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	< 0.0002	< 0.0002	0.5	2	25
Barium	1455	U	< 0.005	< 0.0005	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	0.0098	0.098	0.5	10	70
Copper	1455	U	0.0007	0.0075	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.0023	0.023	0.5	10	30
Nickel	1455	U	0.0040	0.040	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0005	0.06	0.7	5
Selenium	1455	U	0.0006	0.0065	0.1	0.5	7
Zinc	1455	U	< 0.003	< 0.003	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.37	3.7	10	150	500
Sulphate	1220	U	21	210	1000	20000	50000
Total Dissolved Solids	1020	N	85	840	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	4.0	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	9.3

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 23311 Blanchardstown TC PRS Project (DBFL)

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-21171						
Chemtest Sample ID:	1225645						
Sample Ref:	7-1						
Sample ID:							
Sample Location:	7						
Top Depth(m):	0.00						
Bottom Depth(m):	1.00						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] 0.55	3	5	6
Loss On Ignition	2610	U	%	3.3	--	--	10
Total BTEX	2760	U	mg/kg	[A] 0.011	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		8.6	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.021	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	< 0.0002	< 0.0002	0.5	2	25
Barium	1455	U	< 0.005	< 0.0005	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	0.011	0.11	0.5	10	70
Copper	1455	U	0.0008	0.0077	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.0030	0.030	0.5	10	30
Nickel	1455	U	0.0043	0.043	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0005	0.06	0.7	5
Selenium	1455	U	0.0006	0.0056	0.1	0.5	7
Zinc	1455	U	< 0.003	< 0.003	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.34	3.4	10	150	500
Sulphate	1220	U	15	150	1000	20000	50000
Total Dissolved Solids	1020	N	72	710	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	4.0	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	9.9

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 23311 Blanchardstown TC PRS Project (DBFL)

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-21171						
Chemtest Sample ID:	1225646						
Sample Ref:	7-2						
Sample ID:							
Sample Location:	7						
Top Depth(m):	1.00						
Bottom Depth(m):	2.00						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] 0.61	3	5	6
Loss On Ignition	2610	U	%	3.6	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		8.6	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.016	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	< 0.0002	< 0.0002	0.5	2	25
Barium	1455	U	< 0.005	< 0.0005	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	0.0097	0.097	0.5	10	70
Copper	1455	U	0.0011	0.011	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.0019	0.019	0.5	10	30
Nickel	1455	U	0.0044	0.044	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0005	0.06	0.7	5
Selenium	1455	U	< 0.0005	< 0.0005	0.1	0.5	7
Zinc	1455	U	0.003	0.035	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.30	3.0	10	150	500
Sulphate	1220	U	13	130	1000	20000	50000
Total Dissolved Solids	1020	N	72	710	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	3.9	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	8.6

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 23311 Blanchardstown TC PRS Project (DBFL)

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-21171						
Chemtest Sample ID:	1225647						
Sample Ref:	8-1						
Sample ID:							
Sample Location:	8						
Top Depth(m):	0.00						
Bottom Depth(m):	1.00						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] 0.62	3	5	6
Loss On Ignition	2610	U	%	3.2	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		8.7	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.013	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	< 0.0002	< 0.0002	0.5	2	25
Barium	1455	U	< 0.005	< 0.0005	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	0.0097	0.097	0.5	10	70
Copper	1455	U	0.0007	0.0072	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.0021	0.022	0.5	10	30
Nickel	1455	U	0.0042	0.042	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0005	0.06	0.7	5
Selenium	1455	U	< 0.0005	< 0.0005	0.1	0.5	7
Zinc	1455	U	< 0.003	< 0.003	4	50	200
Chloride	1220	U	1.9	19	800	15000	25000
Fluoride	1220	U	0.23	2.3	10	150	500
Sulphate	1220	U	32	320	1000	20000	50000
Total Dissolved Solids	1020	N	91	910	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	4.1	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	11

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 23311 Blanchardstown TC PRS Project (DBFL)

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-21171						
Chemtest Sample ID:	1225648						
Sample Ref:	9-1						
Sample ID:							
Sample Location:	9						
Top Depth(m):	0.00						
Bottom Depth(m):	1.00						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] 0.35	3	5	6
Loss On Ignition	2610	U	%	3.1	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		8.7	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.043	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	0.0006	0.0060	0.5	2	25
Barium	1455	U	< 0.005	< 0.0005	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	0.0094	0.094	0.5	10	70
Copper	1455	U	0.0013	0.013	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.0064	0.064	0.5	10	30
Nickel	1455	U	0.0040	0.040	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0005	0.06	0.7	5
Selenium	1455	U	0.0013	0.013	0.1	0.5	7
Zinc	1455	U	< 0.003	< 0.003	4	50	200
Chloride	1220	U	1.2	12	800	15000	25000
Fluoride	1220	U	0.32	3.2	10	150	500
Sulphate	1220	U	25	250	1000	20000	50000
Total Dissolved Solids	1020	N	72	710	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	8.4	84	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	14

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 23311 Blanchardstown TC PRS Project (DBFL)

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-21171						
Chemtest Sample ID:	1225649						
Sample Ref:	10-2						
Sample ID:							
Sample Location:	10						
Top Depth(m):	1.00						
Bottom Depth(m):	2.00						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] < 0.20	3	5	6
Loss On Ignition	2610	U	%	2.6	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		8.5	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.031	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	< 0.0002	< 0.0002	0.5	2	25
Barium	1455	U	< 0.005	< 0.0005	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	0.0093	0.093	0.5	10	70
Copper	1455	U	0.0014	0.014	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.0064	0.064	0.5	10	30
Nickel	1455	U	0.0044	0.044	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0005	0.06	0.7	5
Selenium	1455	U	0.0011	0.011	0.1	0.5	7
Zinc	1455	U	0.032	0.32	4	50	200
Chloride	1220	U	1.8	18	800	15000	25000
Fluoride	1220	U	0.32	3.2	10	150	500
Sulphate	1220	U	24	240	1000	20000	50000
Total Dissolved Solids	1020	N	85	840	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	11	110	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	8.8

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 23311 Blanchardstown TC PRS Project (DBFL)

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-21171						
Chemtest Sample ID:	1225650						
Sample Ref:	11-1						
Sample ID:							
Sample Location:	11						
Top Depth(m):	0.00						
Bottom Depth(m):	1.00						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] 0.63	3	5	6
Loss On Ignition	2610	U	%	2.8	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		8.7	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.035	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	0.0003	0.0028	0.5	2	25
Barium	1455	U	< 0.005	< 0.0005	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	0.0094	0.094	0.5	10	70
Copper	1455	U	0.0007	0.0074	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.0067	0.067	0.5	10	30
Nickel	1455	U	0.0042	0.042	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0005	0.06	0.7	5
Selenium	1455	U	0.0013	0.013	0.1	0.5	7
Zinc	1455	U	< 0.003	< 0.003	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.27	2.7	10	150	500
Sulphate	1220	U	16	160	1000	20000	50000
Total Dissolved Solids	1020	N	65	650	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	5.0	50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	7.3

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 23311 Blanchardstown TC PRS Project (DBFL)

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-21171						
Chemtest Sample ID:	1225651						
Sample Ref:	11-2						
Sample ID:							
Sample Location:	11						
Top Depth(m):	1.00						
Bottom Depth(m):	2.00						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] 0.45	3	5	6
Loss On Ignition	2610	U	%	2.5	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] 0.40	100	--	--
pH	2010	U		8.5	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.034	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	0.0008	0.0076	0.5	2	25
Barium	1455	U	< 0.005	< 0.0005	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	0.011	0.11	0.5	10	70
Copper	1455	U	0.0009	0.0093	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.012	0.12	0.5	10	30
Nickel	1455	U	0.0052	0.052	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0005	0.06	0.7	5
Selenium	1455	U	0.0015	0.015	0.1	0.5	7
Zinc	1455	U	0.003	0.026	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.38	3.8	10	150	500
Sulphate	1220	U	27	270	1000	20000	50000
Total Dissolved Solids	1020	N	72	720	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	5.3	53	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	7.6

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 23311 Blanchardstown TC PRS Project (DBFL)

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-21171						
Chemtest Sample ID:	1225652						
Sample Ref:	12-1						
Sample ID:							
Sample Location:	12						
Top Depth(m):	0.00						
Bottom Depth(m):	1.00						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] 0.47	3	5	6
Loss On Ignition	2610	U	%	2.7	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] 2.3	100	--	--
pH	2010	U		8.5	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.029	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	< 0.0002	< 0.0002	0.5	2	25
Barium	1455	U	< 0.005	< 0.0005	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	0.0097	0.097	0.5	10	70
Copper	1455	U	0.0008	0.0076	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.0053	0.054	0.5	10	30
Nickel	1455	U	0.0043	0.043	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0005	0.06	0.7	5
Selenium	1455	U	< 0.0005	< 0.0005	0.1	0.5	7
Zinc	1455	U	< 0.003	< 0.003	4	50	200
Chloride	1220	U	1.8	18	800	15000	25000
Fluoride	1220	U	0.37	3.7	10	150	500
Sulphate	1220	U	22	220	1000	20000	50000
Total Dissolved Solids	1020	N	85	840	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	5.3	53	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	7.9

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 23311 Blanchardstown TC PRS Project (DBFL)

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-21171						
Chemtest Sample ID:	1225653						
Sample Ref:	13-1						
Sample ID:							
Sample Location:	13						
Top Depth(m):	0.00						
Bottom Depth(m):	1.00						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] 0.39	3	5	6
Loss On Ignition	2610	U	%	2.8	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] 0.26	100	--	--
pH	2010	U		8.6	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.034	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	< 0.0002	< 0.0002	0.5	2	25
Barium	1455	U	< 0.005	< 0.0005	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	0.0095	0.095	0.5	10	70
Copper	1455	U	0.0007	0.0071	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.0021	0.021	0.5	10	30
Nickel	1455	U	0.0041	0.041	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0005	0.06	0.7	5
Selenium	1455	U	< 0.0005	< 0.0005	0.1	0.5	7
Zinc	1455	U	< 0.003	< 0.003	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.38	3.8	10	150	500
Sulphate	1220	U	7.8	78	1000	20000	50000
Total Dissolved Solids	1020	N	72	710	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	4.7	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	9.6

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 23311 Blanchardstown TC PRS Project (DBFL)

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-21171						
Chemtest Sample ID:	1225654						
Sample Ref:	1-1						
Sample ID:							
Sample Location:	1						
Top Depth(m):	0.50						
Bottom Depth(m):	1.00						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] 0.21	3	5	6
Loss On Ignition	2610	U	%	2.7	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] 0.38	100	--	--
pH	2010	U		8.6	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.045	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	< 0.0002	< 0.0002	0.5	2	25
Barium	1455	U	< 0.005	< 0.0005	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	0.0096	0.096	0.5	10	70
Copper	1455	U	0.0006	0.0063	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.0029	0.030	0.5	10	30
Nickel	1455	U	0.0040	0.040	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0005	0.06	0.7	5
Selenium	1455	U	< 0.0005	< 0.0005	0.1	0.5	7
Zinc	1455	U	< 0.003	< 0.003	4	50	200
Chloride	1220	U	1.0	10	800	15000	25000
Fluoride	1220	U	0.28	2.8	10	150	500
Sulphate	1220	U	20	200	1000	20000	50000
Total Dissolved Solids	1020	N	78	780	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	4.4	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	14

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: 23311 Blanchardstown TC PRS Project (DBFL)

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-21171						
Chemtest Sample ID:	1225655						
Sample Ref:	10-1						
Sample ID:							
Sample Location:	10						
Top Depth(m):	0.60						
Bottom Depth(m):	1.00						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] 0.69	3	5	6
Loss On Ignition	2610	U	%	2.6	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		8.4	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.0040	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	0.0003	0.0025	0.5	2	25
Barium	1455	U	< 0.005	< 0.0005	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	0.010	0.10	0.5	10	70
Copper	1455	U	0.0008	0.0077	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.0073	0.073	0.5	10	30
Nickel	1455	U	0.0044	0.044	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0005	0.06	0.7	5
Selenium	1455	U	0.0016	0.016	0.1	0.5	7
Zinc	1455	U	< 0.003	< 0.003	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.39	3.9	10	150	500
Sulphate	1220	U	31	310	1000	20000	50000
Total Dissolved Solids	1020	N	91	910	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	3.6	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	10

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1225637	1-2		1		A	Amber Glass 250ml
1225637	1-2		1		A	Plastic Tub 500g
1225638	2-1		2		A	Amber Glass 250ml
1225638	2-1		2		A	Plastic Tub 500g
1225639	2-2		2		A	Amber Glass 250ml
1225639	2-2		2		A	Plastic Tub 500g
1225640	3-1		3		A	Amber Glass 250ml
1225640	3-1		3		A	Plastic Tub 500g
1225641	4-1		4		A	Amber Glass 250ml
1225641	4-1		4		A	Plastic Tub 500g
1225642	5-1		5		A	Amber Glass 250ml
1225642	5-1		5		A	Plastic Tub 500g
1225643	6-1		6		A	Amber Glass 250ml
1225643	6-1		6		A	Plastic Tub 500g
1225644	6-2		6		A	Amber Glass 250ml
1225644	6-2		6		A	Plastic Tub 500g
1225645	7-1		7		A	Amber Glass 250ml
1225645	7-1		7		A	Plastic Tub 500g
1225646	7-2		7		A	Amber Glass 250ml
1225646	7-2		7		A	Plastic Tub 500g
1225647	8-1		8		A	Amber Glass 250ml
1225647	8-1		8		A	Plastic Tub 500g

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1225648	9-1		9		A	Amber Glass 250ml
1225648	9-1		9		A	Plastic Tub 500g
1225649	10-2		10		A	Amber Glass 250ml
1225649	10-2		10		A	Plastic Tub 500g
1225650	11-1		11		A	Amber Glass 250ml
1225650	11-1		11		A	Plastic Tub 500g
1225651	11-2		11		A	Amber Glass 250ml
1225651	11-2		11		A	Plastic Tub 500g
1225652	12-1		12		A	Amber Glass 250ml
1225652	12-1		12		A	Plastic Tub 500g
1225653	13-1		13		A	Amber Glass 250ml
1225653	13-1		13		A	Plastic Tub 500g
1225654	1-1		1		A	Amber Glass 250ml
1225654	1-1		1		A	Plastic Tub 500g
1225655	10-1		10		A	Amber Glass 250ml
1225655	10-1		10		A	Plastic Tub 500g

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-MS	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Pentane extraction / GCMS detection
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH	pH Meter
2015	Acid Neutralisation Capacity	Acid Reserve	Titration
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2180	Sulphur (Elemental) in Soils by HPLC	Sulphur	Dichloromethane extraction / HPLC with UV detection
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N–dimethyl-p-phenylenediamine.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2610	Loss on Ignition	loss on ignition (LOI)	Determination of the proportion by mass that is lost from a soil by ignition at 550°C.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.

Test Methods

SOP	Title	Parameters included	Method summary
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2815	Polychlorinated Biphenyls (PCB) ICES7Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

eurofins | Chemtest
Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

UKAS TESTING 2183

Final Report

Report No.:	21-23459-1		
Initial Date of Issue:	16-Jul-2021		
Client	IGSL		
Client Address:	M7 Business Park Naas County Kildare Ireland		
Contact(s):	Darren Keogh		
Project	Blanchardstown		
Quotation No.:	Q20-19951	**Date Received:**	08-Jul-2021
Order No.:		**Date Instructed:**	08-Jul-2021
No. of Samples:	3		
Turnaround (Wkdays):	7	**Results Due:**	16-Jul-2021
Date Approved:	16-Jul-2021		

Approved By:

Details: Glynn Harvey, Technical Manager

Results - Leachate

Project: Blanchardstown

Client: IGSL					Chemtest Job No.:	21-23459	21-23459	21-23459
Quotation No.: Q20-19951					Chemtest Sample ID.:	1236760	1236761	1236762
					Sample Location:	WS14	WS15	WS18
					Sample Type:	SOIL	SOIL	SOIL
					Top Depth (m):	1.00	1.00	1.00
					Bottom Depth (m):	1.60	2.00	2.00
Determinand	**Accred.**	**SOP**	**Type**	**Units**	**LOD**			
pH	U	1010	10:1		N/A	8.7	8.9	8.7
Ammonium	U	1220	10:1	mg/l	0.050	0.13	0.29	0.13
Ammonium	N	1220	10:1	mg/kg	0.10	1.7	4.2	1.7
Boron (Dissolved)	U	1455	10:1	mg/kg	0.01	0.14	< 0.01	< 0.01
Benzo[j]fluoranthene	N	1800	10:1	µg/l	0.010	< 0.010	< 0.010	< 0.010

Results - Soil

Project: Blanchardstown

Client: IGSL				Chemtest Job No.:	21-23459	21-23459	21-23459
Quotation No.: Q20-19951				Chemtest Sample ID.:	1236760	1236761	1236762
				Sample Location:	WS14	WS15	WS18
				Sample Type:	SOIL	SOIL	SOIL
				Top Depth (m):	1.00	1.00	1.00
				Bottom Depth (m):	1.60	2.00	2.00
				Asbestos Lab:	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**			
ACM Type	U	2192		N/A	-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	9.9	11	15
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	[A] < 0.40	[A] < 0.40	[A] < 0.40
Sulphur (Elemental)	U	2180	mg/kg	1.0	[A] 1.1	[A] < 1.0	[A] 1.1
Cyanide (Total)	U	2300	mg/kg	0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50
Sulphate (Acid Soluble)	U	2430	%	0.010	[A] 0.027	[A] < 0.010	[A] < 0.010
Arsenic	U	2450	mg/kg	1.0	15	13	12
Barium	U	2450	mg/kg	10	59	29	36
Cadmium	U	2450	mg/kg	0.10	0.29	1.7	1.5
Chromium	U	2450	mg/kg	1.0	26	17	9.9
Molybdenum	U	2450	mg/kg	2.0	< 2.0	2.1	3.0
Antimony	N	2450	mg/kg	2.0	2.4	< 2.0	< 2.0
Copper	U	2450	mg/kg	0.50	17	27	30
Mercury	U	2450	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Nickel	U	2450	mg/kg	0.50	47	39	35
Lead	U	2450	mg/kg	0.50	26	14	14
Selenium	U	2450	mg/kg	0.20	0.44	0.55	0.32
Zinc	U	2450	mg/kg	0.50	65	65	68
Chromium (Trivalent)	N	2490	mg/kg	1.0	26	17	9.9
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50
Mineral Oil (TPH Calculation)	N	2670	mg/kg	10	< 10	< 10	< 10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0

Results - Soil

Project: Blanchardstown

Client: IGSL							
				Chemtest Job No.:	21-23459	21-23459	21-23459
Quotation No.: Q20-19951				Chemtest Sample ID.:	1236760	1236761	1236762
				Sample Location:	WS14	WS15	WS18
				Sample Type:	SOIL	SOIL	SOIL
				Top Depth (m):	1.00	1.00	1.00
				Bottom Depth (m):	1.60	2.00	2.00
				Asbestos Lab:	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**			
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	[A] < 10	[A] < 10	[A] < 10
Benzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Toluene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Ethylbenzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
m & p-Xylene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
o-Xylene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Naphthalene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Acenaphthylene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Acenaphthene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Fluorene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Phenanthrene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Anthracene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Fluoranthene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Pyrene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Benzo[a]anthracene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Chrysene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Benzo[b]fluoranthene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Benzo[k]fluoranthene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Benzo[a]pyrene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Indeno(1,2,3-c,d)Pyrene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Benzo[g,h,i]perylene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Coronene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Total Of 17 PAH's	N	2800	mg/kg	0.20	[A] < 0.20	[A] < 0.20	[A] < 0.20
PCB 28	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
PCB 52	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
PCB 90+101	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
PCB 118	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
PCB 153	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
PCB 138	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
PCB 180	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
Total PCBs (7 congeners)	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
Total Phenols	U	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10

Results - Single Stage WAC

Project: Blanchardstown

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-23459						
Chemtest Sample ID:	1236760						
Sample Ref:							
Sample ID:							
Sample Location:	WS14						
Top Depth(m):	1.00						
Bottom Depth(m):	1.60						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] 0.85	3	5	6
Loss On Ignition	2610	U	%	3.2	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		9.1	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.014	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	< 0.0002	< 0.0002	0.5	2	25
Barium	1455	U	< 0.005	< 0.0005	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	0.0013	0.013	0.5	10	70
Copper	1455	U	0.0005	0.0050	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.013	0.13	0.5	10	30
Nickel	1455	U	< 0.0005	< 0.0005	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0005	0.06	0.7	5
Selenium	1455	U	0.0005	0.0054	0.1	0.5	7
Zinc	1455	U	< 0.003	< 0.003	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.80	8.0	10	150	500
Sulphate	1220	U	7.8	78	1000	20000	50000
Total Dissolved Solids	1020	N	72	710	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	3.0	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	9.9

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Blanchardstown

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-23459						
Chemtest Sample ID:	1236761						
Sample Ref:							
Sample ID:							
Sample Location:	WS15						
Top Depth(m):	1.00						
Bottom Depth(m):	2.00						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] 0.52	3	5	6
Loss On Ignition	2610	U	%	2.2	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		9.2	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.081	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	0.0008	0.0080	0.5	2	25
Barium	1455	U	< 0.005	< 0.0005	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	0.0006	0.0056	0.5	10	70
Copper	1455	U	0.0030	0.030	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.0094	0.094	0.5	10	30
Nickel	1455	U	0.0028	0.028	0.4	10	40
Lead	1455	U	0.0007	0.0072	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0005	0.06	0.7	5
Selenium	1455	U	0.0005	0.0051	0.1	0.5	7
Zinc	1455	U	0.014	0.14	4	50	200
Chloride	1220	U	1.7	17	800	15000	25000
Fluoride	1220	U	0.34	3.4	10	150	500
Sulphate	1220	U	3.9	39	1000	20000	50000
Total Dissolved Solids	1020	N	57	570	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	12	120	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	11

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Blanchardstown

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-23459						
Chemtest Sample ID:	1236762						
Sample Ref:							
Sample ID:							
Sample Location:	WS18						
Top Depth(m):	1.00						
Bottom Depth(m):	2.00						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] 0.44	3	5	6
Loss On Ignition	2610	U	%	3.1	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		9.3	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.022	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	< 0.0002	< 0.0002	0.5	2	25
Barium	1455	U	< 0.005	< 0.0005	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	< 0.0005	< 0.0005	0.5	10	70
Copper	1455	U	0.0007	0.0070	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.010	0.10	0.5	10	30
Nickel	1455	U	< 0.0005	< 0.0005	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0005	0.06	0.7	5
Selenium	1455	U	< 0.0005	< 0.0005	0.1	0.5	7
Zinc	1455	U	< 0.003	< 0.003	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.50	5.0	10	150	500
Sulphate	1220	U	3.6	36	1000	20000	50000
Total Dissolved Solids	1020	N	72	710	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	3.2	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	15

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1236760			WS14		A	Amber Glass 250ml
1236760			WS14		A	Plastic Tub 1000g
1236761			WS15		A	Amber Glass 250ml
1236761			WS15		A	Plastic Tub 1000g
1236762			WS18		A	Amber Glass 250ml
1236762			WS18		A	Plastic Tub 1000g

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-MS	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Pentane extraction / GCMS detection
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH	pH Meter
2015	Acid Neutralisation Capacity	Acid Reserve	Titration
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2180	Sulphur (Elemental) in Soils by HPLC	Sulphur	Dichloromethane extraction / HPLC with UV detection
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N–dimethyl-p-phenylenediamine.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2610	Loss on Ignition	loss on ignition (LOI)	Determination of the proportion by mass that is lost from a soil by ignition at 550°C.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.

Test Methods

SOP	Title	Parameters included	Method summary
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2815	Polychlorinated Biphenyls (PCB) ICES7Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

eurofins | Chemtest
Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

UKAS TESTING 2183

Amended Report

Report No.:	21-23475-2		
Initial Date of Issue:	19-Jul-2021	**Date of Re-Issue:**	06-Sep-2021
Client	IGSL		
Client Address:	M7 Business Park Naas County Kildare Ireland		
Contact(s):	Darren Keogh		
Project	Blanchardstown		
Quotation No.:	Q20-19951	**Date Received:**	08-Jul-2021
Order No.:		**Date Instructed:**	08-Jul-2021
No. of Samples:	5		
Turnaround (Wkdays):	42	**Results Due:**	06-Sep-2021
Date Approved:	06-Sep-2021		

Approved By:

Details: Glynn Harvey, Technical Manager

Results - Leachate

Project: Blanchardstown

Client: IGSL					Chemtest Job No.:	21-23475	21-23475	21-23475	21-23475	21-23475
Quotation No.: Q20-19951					Chemtest Sample ID.:	1236855	1236856	1236857	1236858	1236859
					Sample Location:	WS 16	WS 17	WS 19	WS 20	WS 21
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	1.00	0.70	1.00	1.00	1.00
					Bottom Depth (m):	1.50	1.40	2.00	1.60	1.60
Determinand	**Accred.**	**SOP**	**Type**	**Units**	**LOD**					
pH	U	1010	10:1		N/A	8.8	8.6	8.6	8.6	8.7
Ammonium	U	1220	10:1	mg/l	0.050	0.16	0.15	0.11	0.17	0.33
Ammonium	N	1220	10:1	mg/kg	0.10	2.1	1.9	1.4	2.1	4.1
Boron (Dissolved)	U	1455	10:1	mg/kg	0.01	< 0.01	0.12	< 0.01	0.17	0.13
Benzo[j]fluoranthene	N	1800	10:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010

Results - Soil

Project: Blanchardstown

Client: IGSL				Chemtest Job No.:	21-23475	21-23475	21-23475	21-23475	21-23475
Quotation No.: Q20-19951				Chemtest Sample ID.:	1236855	1236856	1236857	1236858	1236859
				Sample Location:	WS 16	WS 17	WS 19	WS 20	WS 21
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	1.00	0.70	1.00	1.00	1.00
				Bottom Depth (m):	1.50	1.40	2.00	1.60	1.60
				Asbestos Lab:	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**					
ACM Type	U	2192		N/A	-	-	-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	2.3	4.9	11	6.0	9.6
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	[A] < 0.40	[A] < 0.40	[A] < 0.40	[A] < 0.40	[A] < 0.40
Sulphur (Elemental)	U	2180	mg/kg	1.0	[A] 3.8	[A] 7.0	[A] < 1.0	[A] 2.9	[A] < 1.0
Cyanide (Total)	U	2300	mg/kg	0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50
Sulphate (Acid Soluble)	U	2430	%	0.010	[A] 0.044	[A] 0.052	[A] 0.010	[A] 0.046	[A] 0.016
Arsenic	U	2450	mg/kg	1.0	17	21	16	29	16
Barium	U	2450	mg/kg	10	73	61	48	71	35
Cadmium	U	2450	mg/kg	0.10	0.74	0.54	2.4	0.75	0.46
Chromium	U	2450	mg/kg	1.0	3.6	4.4	9.8	13	28
Molybdenum	U	2450	mg/kg	2.0	< 2.0	< 2.0	5.1	< 2.0	< 2.0
Antimony	N	2450	mg/kg	2.0	< 2.0	< 2.0	< 2.0	2.1	< 2.0
Copper	U	2450	mg/kg	0.50	9.9	9.9	31	19	34
Mercury	U	2450	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	U	2450	mg/kg	0.50	15	22	38	40	76
Lead	U	2450	mg/kg	0.50	49	20	16	36	23
Selenium	U	2450	mg/kg	0.20	< 0.20	< 0.20	0.71	< 0.20	0.91
Zinc	U	2450	mg/kg	0.50	33	45	61	79	150
Chromium (Trivalent)	N	2490	mg/kg	1.0	3.6	4.4	9.8	13	28
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Mineral Oil (TPH Calculation)	N	2670	mg/kg	10	< 10	5700	< 10	< 10	< 10
Diesel Present	N	2670		N/A		True			
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0	[A] < 1.0	[A] 240	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0	[A] < 1.0	[A] 1800	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0	[A] 2200	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	[A] < 1.0	[A] 1400	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0	[A] 58	[A] < 1.0	[A] < 1.0	[A] < 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0	[A] 5700	[A] < 5.0	[A] < 5.0	[A] < 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	[A] < 1.0	[A] 180	[A] < 1.0	[A] < 1.0	[A] < 1.0

Results - Soil

Project: Blanchardstown

Client: IGSL									
Quotation No.: Q20-19951				Chemtest Job No.:	21-23475	21-23475	21-23475	21-23475	21-23475
				Chemtest Sample ID.:	1236855	1236856	1236857	1236858	1236859
				Sample Location:	WS 16	WS 17	WS 19	WS 20	WS 21
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):	1.00	0.70	1.00	1.00	1.00
				Bottom Depth (m):	1.50	1.40	2.00	1.60	1.60
				Asbestos Lab:	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**					
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	[A] < 1.0	[A] 310	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0	[A] 490	[A] < 5.0	[A] < 5.0	[A] < 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	[A] < 10	[A] 6200	[A] < 10	[A] < 10	[A] < 10
Benzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Toluene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Ethylbenzene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
m & p-Xylene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
o-Xylene	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Naphthalene	N	2800	mg/kg	0.010	[A] 0.17	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Acenaphthylene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Acenaphthene	N	2800	mg/kg	0.010	[A] 0.042	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Fluorene	N	2800	mg/kg	0.010	[A] 0.045	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Phenanthrene	N	2800	mg/kg	0.010	[A] 0.10	[A] 0.041	[A] 0.034	[A] < 0.010	[A] 0.032
Anthracene	N	2800	mg/kg	0.010	[A] 0.033	[A] 0.024	[A] 0.013	[A] < 0.010	[A] 0.028
Fluoranthene	N	2800	mg/kg	0.010	[A] 0.088	[A] 0.089	[A] 0.021	[A] 0.030	[A] 0.044
Pyrene	N	2800	mg/kg	0.010	[A] 0.098	[A] 0.076	[A] 0.041	[A] 0.031	[A] 0.051
Benzo[a]anthracene	N	2800	mg/kg	0.010	[A] 0.046	[A] 0.043	[A] 0.023	[A] 0.029	[A] 0.041
Chrysene	N	2800	mg/kg	0.010	[A] 0.086	[A] 0.048	[A] 0.036	[A] 0.048	[A] 0.059
Benzo[b]fluoranthene	N	2800	mg/kg	0.010	[A] 0.063	[A] 0.060	[A] < 0.010	[A] < 0.010	[A] 0.028
Benzo[k]fluoranthene	N	2800	mg/kg	0.010	[A] 0.044	[A] 0.023	[A] < 0.010	[A] < 0.010	[A] 0.043
Benzo[a]pyrene	N	2800	mg/kg	0.010	[A] 0.054	[A] 0.038	[A] < 0.010	[A] < 0.010	[A] 0.037
Indeno(1,2,3-c,d)Pyrene	N	2800	mg/kg	0.010	[A] 0.071	[A] 0.052	[A] < 0.010	[A] < 0.010	[A] 0.046
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.010	[A] 0.067	[A] 0.030	[A] < 0.010	[A] < 0.010	[A] 0.040
Benzo[g,h,i]perylene	N	2800	mg/kg	0.010	[A] 0.082	[A] 0.032	[A] < 0.010	[A] < 0.010	[A] 0.040
Coronene	N	2800	mg/kg	0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Total Of 17 PAH's	N	2800	mg/kg	0.20	[A] 1.1	[A] 0.56	[A] < 0.20	[A] < 0.20	[A] 0.49
PCB 28	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
PCB 52	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
PCB 90+101	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
PCB 118	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
PCB 153	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
PCB 138	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
PCB 180	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
Total PCBs (7 congeners)	N	2815	mg/kg	0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010	[A] < 0.0010
Total Phenols	U	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Single Stage WAC

Project: Blanchardstown

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-23475						
Chemtest Sample ID:	1236855						
Sample Ref:							
Sample ID:							
Sample Location:	WS 16						
Top Depth(m):	1.00						
Bottom Depth(m):	1.50						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] 0.72	3	5	6
Loss On Ignition	2610	U	%	2.4	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] 1.1	100	--	--
pH	2010	U		9.6	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.034	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	0.0003	0.0027	0.5	2	25
Barium	1455	U	0.005	0.052	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	0.0009	0.0090	0.5	10	70
Copper	1455	U	0.0007	0.0072	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.021	0.21	0.5	10	30
Nickel	1455	U	< 0.0005	< 0.0005	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0005	0.06	0.7	5
Selenium	1455	U	< 0.0005	< 0.0005	0.1	0.5	7
Zinc	1455	U	0.004	0.045	4	50	200
Chloride	1220	U	1.8	18	800	15000	25000
Fluoride	1220	U	0.63	6.3	10	150	500
Sulphate	1220	U	20	200	1000	20000	50000
Total Dissolved Solids	1020	N	72	720	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	4.0	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	2.3

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Blanchardstown

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-23475						
Chemtest Sample ID:	1236856						
Sample Ref:							
Sample ID:							
Sample Location:	WS 17						
Top Depth(m):	0.70						
Bottom Depth(m):	1.40						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] 0.57	3	5	6
Loss On Ignition	2610	U	%	1.8	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] 6200	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] 0.56	100	--	--
pH	2010	U		8.8	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.026	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	0.0003	0.0027	0.5	2	25
Barium	1455	U	0.063	0.63	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	< 0.0005	< 0.0005	0.5	10	70
Copper	1455	U	0.0045	0.045	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.015	0.15	0.5	10	30
Nickel	1455	U	0.0044	0.044	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	0.0006	0.0058	0.06	0.7	5
Selenium	1455	U	< 0.0005	< 0.0005	0.1	0.5	7
Zinc	1455	U	< 0.003	< 0.003	4	50	200
Chloride	1220	U	1.6	16	800	15000	25000
Fluoride	1220	U	0.80	8.0	10	150	500
Sulphate	1220	U	23	230	1000	20000	50000
Total Dissolved Solids	1020	N	98	980	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	3.1	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	4.9

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Blanchardstown

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-23475						
Chemtest Sample ID:	1236857						
Sample Ref:							
Sample ID:							
Sample Location:	WS 19						
Top Depth(m):	1.00						
Bottom Depth(m):	2.00						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] 0.64	3	5	6
Loss On Ignition	2610	U	%	2.8	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		8.8	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.049	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	< 0.0002	< 0.0002	0.5	2	25
Barium	1455	U	< 0.005	< 0.0005	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	< 0.0005	< 0.0005	0.5	10	70
Copper	1455	U	0.0008	0.0077	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.019	0.19	0.5	10	30
Nickel	1455	U	< 0.0005	< 0.0005	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0005	0.06	0.7	5
Selenium	1455	U	< 0.0005	< 0.0005	0.1	0.5	7
Zinc	1455	U	< 0.003	< 0.003	4	50	200
Chloride	1220	U	< 1.0	< 10	800	15000	25000
Fluoride	1220	U	0.57	5.7	10	150	500
Sulphate	1220	U	9.7	97	1000	20000	50000
Total Dissolved Solids	1020	N	85	840	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	3.8	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	11

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - Single Stage WAC

Project: Blanchardstown

					Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-23475						
Chemtest Sample ID:	1236858						
Sample Ref:							
Sample ID:							
Sample Location:	WS 20						
Top Depth(m):	1.00						
Bottom Depth(m):	1.60						
Sampling Date:							
Determinand	**SOP**	**Accred.**	**Units**		**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	U	%	[A] 0.66	3	5	6
Loss On Ignition	2610	U	%	2.1	--	--	10
Total BTEX	2760	U	mg/kg	[A] < 0.010	6	--	--
Total PCBs (7 congeners)	2815	N	mg/kg	[A] < 0.0010	1	--	--
TPH Total WAC	2670	U	mg/kg	[A] < 10	500	--	--
Total Of 17 PAH's	2800	N	mg/kg	[A] < 0.20	100	--	--
pH	2010	U		8.7	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.026	--	To evaluate	To evaluate
Eluate Analysis			**10:1 Eluate mg/l**	**10:1 Eluate mg/kg**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	0.0009	0.0085	0.5	2	25
Barium	1455	U	0.061	0.61	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	0.0007	0.0075	0.5	10	70
Copper	1455	U	0.0010	0.0099	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.014	0.14	0.5	10	30
Nickel	1455	U	< 0.0005	< 0.0005	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	0.0010	0.010	0.06	0.7	5
Selenium	1455	U	< 0.0005	< 0.0005	0.1	0.5	7
Zinc	1455	U	< 0.003	< 0.003	4	50	200
Chloride	1220	U	1.8	18	800	15000	25000
Fluoride	1220	U	0.51	5.1	10	150	500
Sulphate	1220	U	31	310	1000	20000	50000
Total Dissolved Solids	1020	N	100	1000	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.30	1	-	-
Dissolved Organic Carbon	1610	U	3.5	< 50	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	6.0

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.