

Co. Meath

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Unit 35,

Boyne Business Park,

Drogheda, Co. Louth Ireland

Tel: +353 41 9845440 Fax: +353 41 9846171 Web: www.fitzsci.ie email info@fitzsci.ie

Customer Nikita Coulter Lab Report Ref. No. 1438/009/02
The Recycling Village Ltd. Date of Receipt 19/03/2014
Unit 21 Sampled On 18/03/2014

 Duleek Business Park
 Date Testing Commenced
 19/03/2014

 Duleek
 Received or Collected
 Delivered by Customer

Condition on Receipt Acceptable

Date of Report 11/04/2014

Sample Type Soil

Customer PO
Customer Ref

Customer Ref BH1 2.0m

Ref 2

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique Drying @ 104 C GCMS GCMS GCMS GCMS ICPMS ICP-OES ICPMS ICP-OES ICPMS ICP-OES ICPS ICP-OES ICPS ICPOES ICPMS ICP-OES ICPS ICPOES	یکResult	Units	Acc.
% Dry Matter	302	Drying @ 104 C	83.35	%	
Acenaphthene (Soil)	200	GCMS	<0.05	mg/Kg	
Acenaphthylene (Soil)	200	GCMS	<0.05	mg/Kg	
Anthracene (Soil)	200	GCMS SEE A	<0.05	mg/Kg	
Antimony (Leachate)	128	ICPMS JUTE QUITE	3.765	ug/Kg	
Antimony Solid (OES)	224	ICP-OES CONTRACTOR	505.168	ug/Kg	
Arsenic (Leachate)	128	ICPMS Dect wife	33.7	ug/Kg	
Arsenic Solid (OES)	224	ICP-OES TIP of the	5540.7	ug/Kg	
Barium (Leachate)	128	ICPMS FORTH	420.7	ug/Kg	
Barium Solid (OES)	224	ICP-OES	36572.4	ug/Kg	
Benzene (Soil)	198	GC-FID	<0.5	mg/Kg	
Benzo(a)anthracene (Soil)	200	GCMS of S	< 0.05	mg/Kg	
Benzo(a)pyrene (Soil)	200	GCMS	< 0.05	mg/Kg	
Benzo(b)fluoranthene (Soil)	200	GCMS	< 0.05	mg/Kg	
Benzo(ghi)perylene (Soil)	200	GCMS	< 0.05	mg/Kg	
Benzo(k)fluoranthene (Soil)	200	GCMS	< 0.05	mg/Kg	
BTEX (soil)	198	GC-FID	<0.5	mg/Kg	
Cadmium (Leachate)	128	ICPMS	0.105	ug/Kg	
Cadmium Solid (OES)	224	ICP-OES	<10.00	ug/Kg	
Chloride (Leachate WAC)	190	IC	2137.64	mg/Kg	
Chloride (Solid)	100	Colorimetry	5.91	mg/Kg	
Chromium (Leachate)	128	ICPMS	451.5	ug/Kg	
Chromium Solid (OES)	224	ICP-OES	16940.2	ug/Kg	
Chrysene (Soil)	200	GCMS	<0.05	mg/Kg	

Signed: A House Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

All organic results are analysed as received and all results are corrected for dry weight at 104 C

Results shall not be reproduced, except in full, without the approval of Fitz Scientific

Results contained in this report relate only to the samples tested

(P): Presumptive Results

**The analytical result for this parameter may not be reflective of the concentration present at the time of sampling. The maximum recommended preservation time for this parameter has been exceeded.

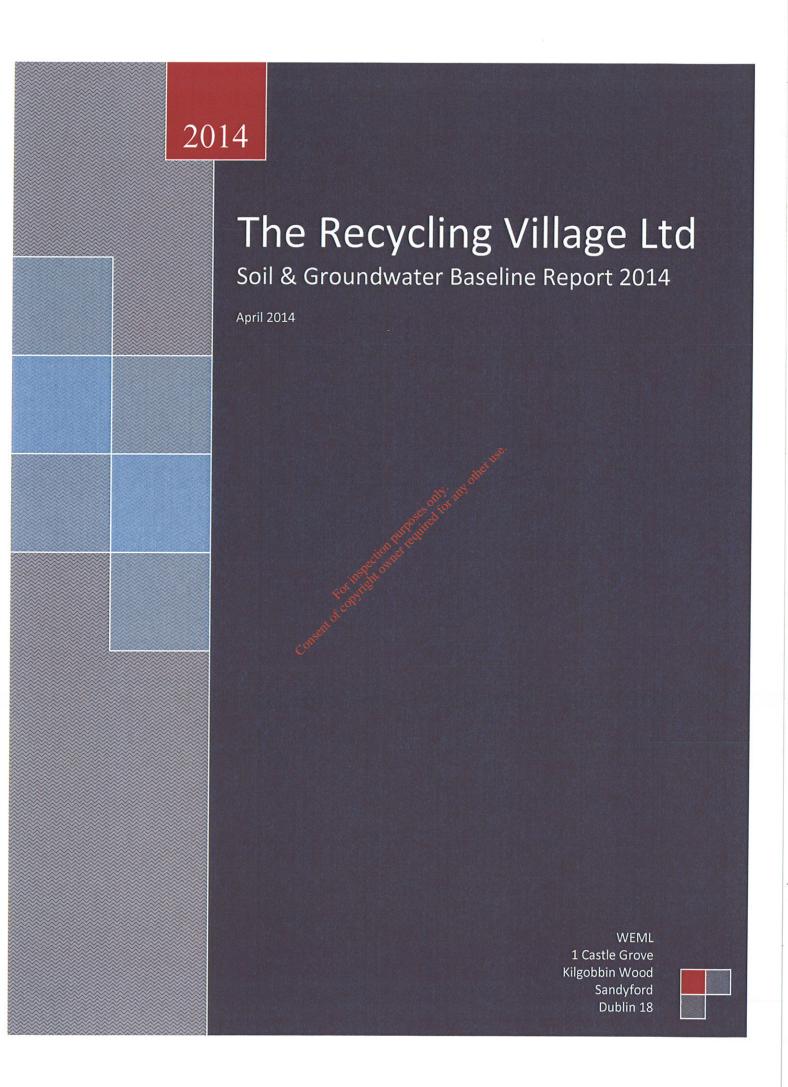


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Figure 2 Regional Groundwater Flow Direction

APPENDICES

Appendix 1 Borehole Logs

Appendix 2 Laboratory Results & Certificates

1.0 INTRODUCTION.

1.1 Background.

Wood Environmental Management Ltd (WEML) was commissioned by The Recycling Village Ltd to carry out a baseline soil and groundwater site investigation at the existing WEEE recycling facility located at Unit 21 Duleek Business Park Commons, Duleek, Co Meath.

The site investigation was carried out on Tuesday 18th March 2014. This report details the work carried out at the site and presents the results, findings and conclusions of the site investigation.

1.2 Scope of Site Investigation.

The aim of the site investigation was to establish the existing soil and shallow groundwater quality/contamination conditions in order to establish the baseline soil and shallow groundwater conditions.

The scope of the site investigation included so

- Coring 3 no. boreholes to a maximum depth of 5 metres at predetermined locations across the site (Figure 1)
- Soil/borehole logs
- Laboratory analysis of soil samples from the top, mid and bottom of each borehole
- Laboratory analysis of shallow (perched) groundwater from each borehole (where encountered)

1.3 Site Investigation Methodology.

The location of each of the 3 boreholes was agreed on site with The Recycling Village Ltd (Figure 1) to reflect the direction of the deep aquifer regional groundwater flow (Figure 2). Borehole 1 was located upstream of the aquifer groundwater flow, boreholes 2 and 3 were located downstream of the aquifer groundwater flow.

Sampling was carried out using a percussion drill rig to obtain core samples at each location up-to a maximum depth of 5 meters below existing ground level where ground conditions allowed. Prior to coring, each location was scanned for underground services or cables.

Soil samples were taken from each of the 3 boreholes at the surface, mid borehole depth and bottom of the borehole and collected into labelled glass containers for analysis by an accredited third party laboratory.

Each soil core was logged and recorded on site by the drilling contractor (Appendix 1).

Upon completion of the borehole, a permanent piezometer was installed to allow for future groundwater sampling and analysis. Where groundwater was encountered, the borehole was bailed out and left to recharge prior to a sample of groundwater being collected into labelled glass containers for analysis by an accredited third party laboratory.

The monitoring boreholes were finished with pea gravel, bentonite seal and capped with a flush, trafficable plate.

2.0 SITE DETAILS

2.1 Site Geology & Hydrogeology

The soil composition in the vicinity of the site is comprised of Limestone till (Carboniferous), lake sediments undifferentiated, shales and sandstones till (Namurian).

The bedrock is classified as marine shelf facies; limestone & calcareous shale from the age bracket Palaeozoic, Carboniferous, Mississippian.

The bedrock aquifer is classified as Regionally Important Aquifer - Karstified (diffuse).

The flow of the aquifer in the area of the site is in a north west to south east direction (Figure 2).

2.2 Site Location and History

The site is a purpose built industrial facility that was constructed in 2005 on a green field site.

The area of the site is approximately 6,313m² (1.56 acres). The site is fully covered with concrete and houses one large building measuring approximately 1,700m². The site was originally used as a light industrial, steel fabrication facility over the period 2005-2011.

Based on the known recent development and previous use of the site there are no expected or known soil or groundwater contamination issues below the site as a result of historic site activities.

2.3 Existing Site Use

The site is currently occupied by The Recycling Village Ltd and is operated as a waste electronic and electrical equipment (WEEE) recycling facility.

The recycling process is a dry process. No process effluent is produced at the facility.

The storage yard at the facility is covered with concrete to prevent potential soil and groundwater pollution from potential spillages and leaks.

There are no direct emissions to ground or groundwater from the facility.

The site interceptor sump has been emptied and inspected by a third party and declared intact.

Consequently, the existing concrete yard, interceptor sump, site Environmental management system (EMS), emissions monitoring, emergency & spillage procedures will help to protect the soil and groundwater underneath the site from potential pollution from spills and activities taking place at the facility.

There are no known soil or groundwater contamination issues below the site as a result of current site activities.

3.0 SITE INVESTIGATION

3.1 Sampling Locations

The location of each of the 3 sampling boreholes was agreed on site with The Recycling Village Ltd management (Figure 1). One sampling location was chosen in the car park of the facility upstream of the groundwater flow, the other 2 boreholes were located in the main facility yard down-stream of the groundwater flow.

The description, depth and location of each sampling borehole is shown in the table below.

Table 1. Location of Sampling Boreholes & Depth.

Borehole Ref	Location/Area of Site	Depth of Borehole	Samples Taken
1	Car Park (upstream of groundwater flow)	4.0 m	Soil 0m Soil 2.0m Soil 4.0m
2	Mid Site near Interceptor Sump (upstream of groundwater flow)	3.0 m	Soil 0m Soil 1.5m Soil 3.0m Groundwater
3	NE Site Boundary (upstream of groundwater flow)	5.3 m	Soil 0m Soil 2.5m Soil 5.0m Groundwater

3.2 Sampling Procedures

Each sampling location was cored by JS Drilling Ltd using a RGS 150 tracked window sampling percussion right ander the supervision of Andrew Wood, WEML. Each soil core was logged and recorded on site by JS Drilling Ltd. Borehole logs are provided in Appendix 1.

Immediately following core removal, each recovered soil sample was observed for signs or evidence of contamination (eg. visual and olfactory). WEML collected soil sample from the relevant depth of the core and placed it directly into a sealed, labelled glass containers to prevent potential cross contamination.

WEML collected soil samples from each borehole at the surface, mid depth and bottom of the borehole.

The soil samples were dispatch by The Recycling Village Ltd to Fitz Scientific Laboratory, Drogheda, Co Louth for analysis.

Upon completion of the borehole, a permanent piezometer was installed to allow for future groundwater sampling and analysis. Where shallow groundwater was encountered, the borehole was bailed out and left to recharge prior to a sample of groundwater being collected into labelled glass containers for analysis by an accredited third party laboratory.

The monitoring boreholes were finished with pea gravel, bentonite seal and capped with a flush, trafficable plate.

3.3 Laboratory Analysis

A total of 9 soil samples, three each from borehole and 2 groundwater samples (boreholes 2 and 3), were analysed by Fitz Scientific Laboratory.

Groundwater samples were analysed for a range of parameters including;

- Heavy Metals
- Physico parameters
- Inorganic compounds
- Nutrients
- Bacteriological

Soil samples were analysed for a range of parameters including;

- Heavy Metals
- PAH's
- BTEX
- Mineral oil
- PCB's

Leachate tests were also carried out on the soil samples.

Analytical results are summarized below. Full copies of the laboratory results and certificates are presented in Appendix 2.

4.0 RESULTS

The following table presents a summary of the soil and groundwater results. Full analytical results are presented in Appendix 2.

Table 2. Groundwater Results.

Parameter	Unit	Standard (s)	BH 1	BH 2	ВН 3
Arsenic	ug/l	60* (7.5 ¹)	No	1.455	1.434
Barium	ug/l	625*	Sample	68.97	61.62
Boron	ug/l	750 ¹	taken.	134.2	173.6
Calcium	ug/l	-	BH1 was	63.97	131.3
Cadmium	ug/l	6* (3.75 ¹)	dry.	0.18	0.141
Chromium	ug/l	30*	1 1	5.803	5.377
Copper	ug/l	75* (1,500 ¹)	1	23.96	12.58
Cyanide	ug/l	1,500* (37.5 ¹)	1	<5	<5
Iron	ug/l	-	1	682.6	765.1
Lead	ug/l	75* (18.75 ¹)	1	12.52	1.479
Magnesium	ug/l	-	1	3.145	10.01
Manganese	ug/l	-	1		60.1
Mercury	ug/l	$0.3*(0.75^1)$		<0.04	0.045
Nickel	ug/l	- 0.3* (0.75¹) 75* (15¹)	Only any	7.195	3.26
Selenium	ug/l	-	ses difor	1.726	1.792
Silver	ug/l	- 3	170 nijio	< 0.33	<0.33
Zinc	ug/l	800*	1,000	29.25	11.29
Phenols	ug/l	2,000*		<0.10	<0.10
рH	Units	in the little		8.4	7.8
Conductivity	uscm@20oC	1875 ¹		476	690
Potassium	mg/l	St. Co.		8.422	10.54
Phosphate	mg/l as P	sent		0.028	<0.024
Sodium	mg/l	1501		34.68	19.47
Ammonia	mg/l as N			0.42	<0.01
Nitrite	mg/l as N	375,000 ¹		0.007	<0.002
Nitrite as NO2	mg/l as NO2			< 0.050	<0.050
Nitrate	mg/l as N	37.5 ¹		0.990	2.940
Nitrate as NO3	mg/l as NO3			4.384	13.02
Dissolved O2	mg/l			6.5	9.2
Alkalinity	mg/l CaCO3			30	211
TOC	mg/l			5.76	7.04
Nitrogen	mg/l as N			1.00	2.94
Chloride	mg/l	187.5 ¹		73.59	24.81
Flouride	mg/l			0.50	0.29
Sulphate	mg/l	187.5 ¹		112.82	200.63
F.Coliforms	Cfu/100 ml			0	0
Coliforms	Cfu/100 ml			0	17
Phosphate	mg/l as PO4	11		0.086	0.067

^{*}Dutch Groundwater Intervention Level as per 'Technical evaluation of the Intervention Values for Soil/sediment and Groundwater Human and ecotoxicological risk assessment and derivation of risk limits for soil, aquatic sediment and groundwater, 2001'.

¹EC Environmental Objectives (Groundwater) Regulations, SI 9 of 2010.

Table 3.Soil Results - Borehole 1.

Parameter & Units	Intervention Value*	0m	2.0m	4.0m
PAH (sum) (mg/kg)	40	<0.05	<0.05	<0.05
% Dry Matter (%)	-	77.97	83.35	90.78
TOC (%)	-	2.62	1.534	<1.0
BTEX (mg/kg)	1 (Benzene)	<0.5	<0.5	<0.5
PCB's (mg/kg)	1 (Total)	<0.005	<0.005	<0.005
Mineral Oil (mg/kg)	5,000	<2.5	<2.5	<2.5
Arsenic (ug/kg)	55,000	3741.7	5540.7	5041.86
Barium (ug/kg)	625,000	49203.6	36572.4	47566.6
Cadmium (ug/kg)	12,000	324.66	<10.00	164.665
Chromium (ug/kg)	380,000	8752.76	16940.2	13644.8
Copper (ug/kg)	190,000	17421.1	15916.8	19565.9
Mercury (ug/kg)	10,000	81.59	31.03	32.91
Molybdenum (ug/kg)	200,000	982.517	267.593	563.765
Nickel (ug/kg)	210,000	17372.5	23265.4	21835
Lead (ug/kg)	530,000	14090.4	7859.38	8198.09
Antimony (ug/kg)	-	1130.27	505.168	630.34
Selenium (ug/kg)	-	2054.42	3064.55	2877.3
Zinc (ug/kg)	720,000	42300.3	36912.5	32737.9
Chloride (mg/kg)	-	11.79	5.91	7.77
Flouride (mg/kg)	- 3	2,10	2.05	2.29
Sulphate (mg/kg as SO4)	00.75	×<1.39	21.06	3.29

Sulphate (mg/kg as 504)	011	<1.39	21.06	3.29				
Table 4. Soil Results – Borehole 2. Fight Om 1.0m 2.0m PAH (sum) (mg/kg) 40 <0.05								
Parameter & Units	Intervention Value*	0m	1.0m	2.0m				
PAH (sum) (mg/kg)	40	<0.05	<0.05	<0.05				
% Dry Matter (%)	- cent	90.09	86.75	81.5				
TOC (%)	- Course	<1.0	3.724	<1.0				
BTEX (mg/kg)	1 (Benzene)	<0.5	<0.5	<0.5				
PCB's (mg/kg)	1 (Total)	<0.005	<0.005	<0.005				
Mineral Oil (mg/kg)	5,000	3.52	<2.5	<2.5				
Arsenic (ug/kg)	55,000	2912.43	5886.82	5160.46				
Barium (ug/kg)	625,000	36640.7	266276	96145.3				
Cadmium (ug/kg)	12,000	214.277	490.061	293.275				
Chromium (ug/kg)	380,000	8696.86	8527.72	16971.3				
Copper (ug/kg)	190,000	11871.4	19598.6	19702.4				
Mercury (ug/kg)	10,000	9.618	<0.2	<0.2				
Molybdenum (ug/kg)	200,000	747.518	478.331	1206.59				
Nickel (ug/kg)	210,000	13003.2	23955.7	27264.4				
Lead (ug/kg)	530,000	6306.73	7653.02	9024.64				
Antimony (ug/kg)	-	<10	474.41	364.859				
Selenium (ug/kg)	-	1582.64	3250.53	3605.59				
Zinc (ug/kg)	720,000	22248.5	38391.5	47017.5				
Chloride (mg/kg)	-	7.85	10.58	22.36				
Flouride (mg/kg)	-	1.98	2.07	1.92				
Sulphate (mg/kg as SO4)	-	112.32	4.6	15.51				

Table 5. Soil Results - Borehole 3.

Parameter & Units	Intervention Value*	0m	2.5m	5.0m
PAH (sum) (mg/kg)	40	<0.05	<0.05	<0.05
% Dry Matter (%)	-	80.72	79.88	83.59
TOC (%)	-	<1.0	<1.0	<1.0
BTEX (mg/kg)	1 (Benzene)	<0.5	<0.5	<0.5
PCB's (mg/kg)	1 (Total)	<0.005	<0.005	<0.005
Mineral Oil (mg/kg)	5,000	<2.5	6.46	5.55
Arsenic (ug/kg)	55,000	6738.73	4464.46	6594.04
Barium (ug/kg)	625,000	48674.9	51053.7	9635.96
Cadmium (ug/kg)	12,000	471.803	345.309	<10.00
Chromium (ug/kg)	380,000	13175.2	11570.7	1792.88
Copper (ug/kg)	190,000	22633.8	23632.2	19757.4
Mercury (ug/kg)	10,000	49.1	77.09	47.47
Molybdenum (ug/kg)	200,000	730.77	481.31	345.197
Nickel (ug/kg)	210,000	24590.9	29380.9	32632.9
Lead (ug/kg)	530,000	10316.9	12445.6	13362.1
Antimony (ug/kg)	-	498.208	354.06	412.68
Selenium (ug/kg)	-	3217.35	3153.62	1323.5
Zinc (ug/kg)	720,000	38621.4	48259.6	32025.6
Chloride (mg/kg)	-	7,640	8.85	8.69
Flouride (mg/kg)		2,51	2.13	2.02
Sulphate (mg/kg as SO4)	- at Pit	62.16	<1.39	10.89

^{*}Dutch Soil Intervention Level as per 'Technical evaluation of the Intervention Values for Soil/sediment and Groundwater Human and ecotoxicological risk assessment and derivation of risk limits for soil, aquatic sediment and groundwater, 2001'.

5.0 DISCUSSION OF RESULTS

Based on an assessment of the above soil and groundwater laboratory results and comparison to available published environmental quality standards, none of the parameters tested for are above the published standards.

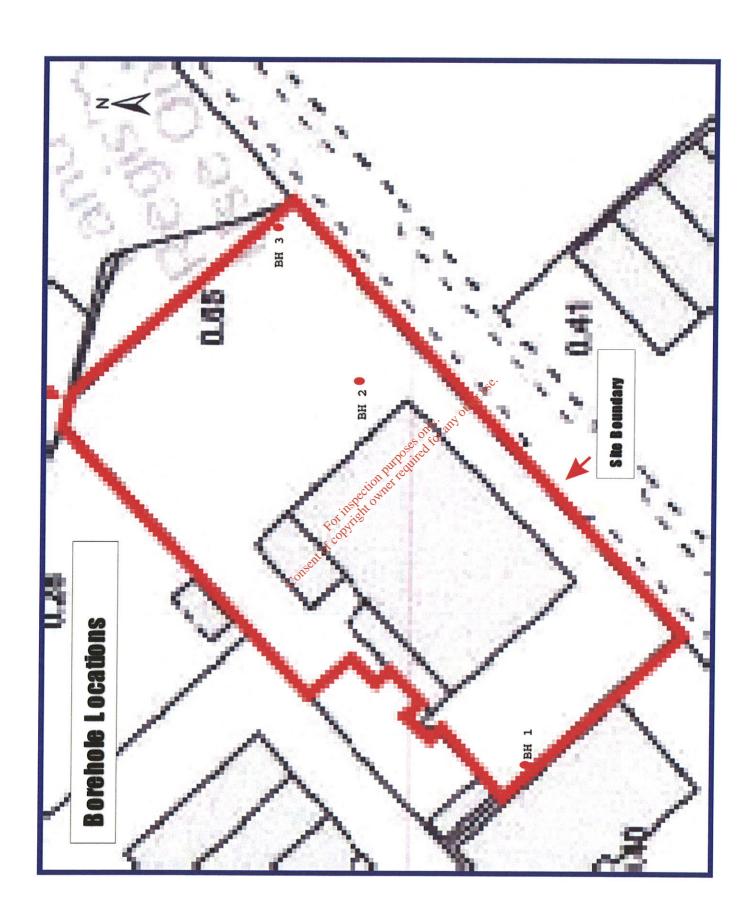
6.0 CONCLUSION

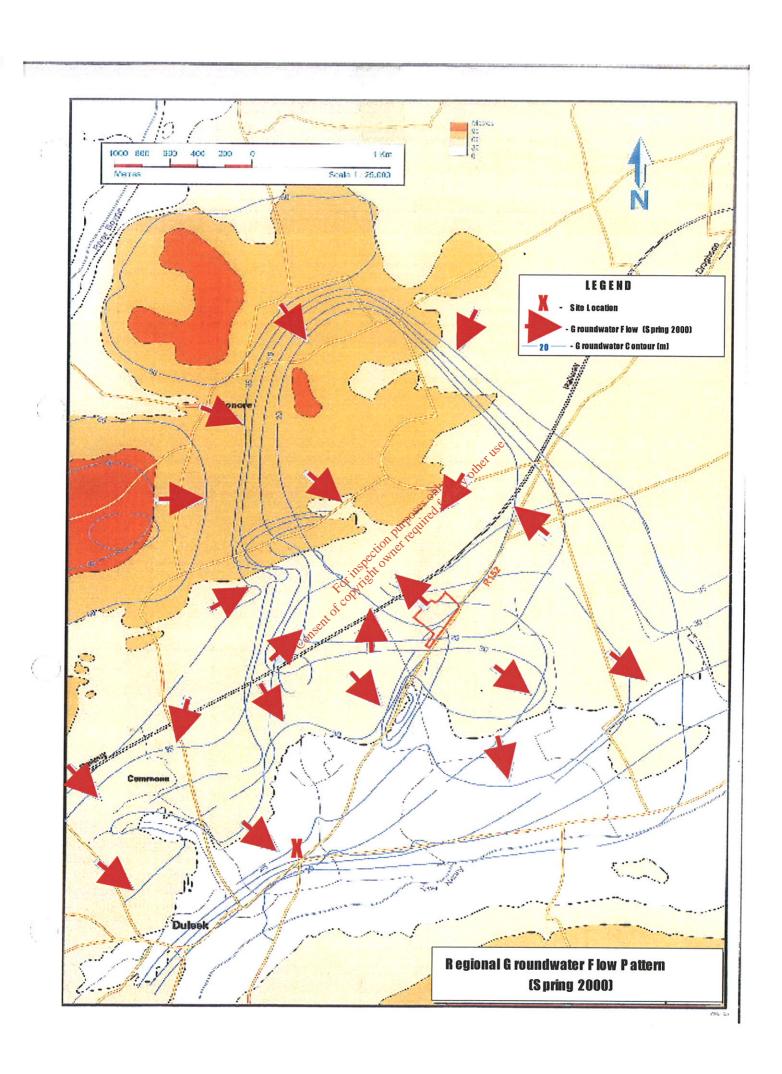
Based on the above site investigation, sampling and analytical results it is concluded that;

- There is no evidence of significant soil or groundwater contamination for the parameters analysed for in the areas tested as part of this investigation.
- This soil and groundwater report provides a useful baseline against which to assess future soil and groundwater quality investigations at the site.

FIGURES

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APPENDICES

Consent of copyright owner required for any other use.

S DESTILLING Geological & Environmental Drilling Contractors

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FAX: 0567793887
E-MAIL: jim@jsdrilling.ie
WEBSITE: www.jsdrilling.ie
VAT. NO: 1E 6431197 F

JS DRILLING LTD 20 THE BELFRY CHAPEL LANE THOMASTOWN CO. KILKENNY

Borel	nole Log
Location: Duleek	Site: Recycling Village
Client: WEML	Borehole No: 1
Date: 18-03-2014	Sheet: 1 of 1
Ground Level: m (Ordnance datum)	Engineer: Andy Wood
Weather: Fine / Drizzling	
Rig Type: Window Sampler	· · · · · · · · · · · · · · · · · · ·

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	Installations
63mm	Well Casing Diameter
1.0m	Plain Casing
3.om	Slotted Casing
3.om	Geosock
2	End Cap
	Gas Valve
3.om	Gravel Pack
1.om	Bentonite Pellets
m	Bentonite Grout
1	Flush Cover – 6"
	Raised Cover
	Padlock

Water Strike	m	m	m	m	Overnight
Duration	mins	mins	mins	mins	
Depth to water					
Depth cased					
Depth of hole					

	Drill Casing							
Size (mm) From (m) To (m								
90	0.0	4.0						

Trial pits, standing time, delays, bad access, etc...

Open Hole Drilling

Client:

Driller:



MOBILE: 0877433451
FAX: 0567793887
E-MAIL: jim@jsdrilling.ie
WEBSITE: www.jsdrilling.ie
VAT. NO: IE 6431197 F

JS DRILLING LTD 20 THE BELFRY CHAPEL LANE THOMASTOWN CO. KILKENNY

Bor	ehole Log		
Location: Duleek	Site: Recycling Village		
Client: WEML	Borehole No: 2		
Date: 18-03-2014	Sheet: 1 of 1		
Ground Level: m (Ordnance datum)	Engineer: Andy Wood		
Weather: Fine / Drizzling			

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	Installations
63mm	Well Casing Diameter
1.0m	Plain Casing
1.3m	Slotted Casing
1.3m	Geosock
2	End Cap
	Gas Valve
2.3m	Gravel Pack
1m	Bentonite Pellets
m	Bentonite Grout
1	Flush Cover – 6"
	Raised Cover
	Padlock

Water Strike	2.2m	m	m	m	Overnight
Duration	mins	mins	mins	mins	
Depth to					
water					
Depth cased					
Depth of					
hole					

	Drill Casing			
Size (mm)	From (m)	To (m)		
90	0.0	3.0		

Trial pits, standing time, delays, bad access, etc...

Open Hole Drilling

Client:

Driller:



MOBILE: 0877433451
FAX: 0567793887
E-MAIL: jim@jsdrilling.ie
WEBSITE: www.jsdrilling.ie
VAT. NO: IE 6431197 F

JS DRILLING LTD 20 THE BELFRY CHAPEL LANE THOMASTOWN CO. KILKENNY Borehole Log

Location: Duleek Site: Recycling Village
Client: WEML Borehole No: 3

Date: 18-03-2014 Sheet: 1 of 1

Ground Level: m
(Ordnance datum)

Weather: Fine / Drizzling
Rig Type: Window Sampler

Dept			Descr	iption c	of Strat	a			
h to base of strat a (m)	soft firm stiff	loose med.d dense	colou	claye y silty sandy	fine med. coars e	soil name	gravel, cobbles, sand bands, etc		No
0.0									
0.25	Concr	ete.							
0.3	Grave	l fill.							
2.6	Dense	brown	clays v	vith gra	avels.				
	Chang	ging to b	ooulde	r clay w	ith dep	oth.			
2.7	Fine s	ands & g	gravels	 ;,					
5.3	Black	/ brown	bould	er clay.					
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	Installations						
63mm	Well Casing Diameter						
1.0M	Plain Casing						
3.om	Slotted Casing						
3.om	Geosock						
2	End Cap						
	Gas Valve						
3.om	Gravel Pack						
1.om	Bentonite Pellets						
m	Bentonite Grout						
1	Flush Cover – 6"						
	Raised Cover						
	Padlock						

Water Strike	0.3m	m	m	m	Overnight
Duration	mins	,,,,,,,	7711113	mins	
Depth to					
water	ĺ				
Depth cased					
Depth of					
hole					

	rill Casing			
Size (mm)	From (m)	To (m)		
90	0.0	5.3		

Trial pits, standing time, delays, bad access, etc...

Open Hole Drilling

Client:

Driller:



A copy of this certificate is available on www.fitzsci.ie

Unit 35,

Boyne Business Park,

Drogheda, Co. Louth Ireland

Groundwater

Tel: +353 41 9845440 Fax: +353 41 9846171 Web: www.fitzsci.ie email info@fitzsci.ie

Customer Nikita Coulter Lab Report Ref. No. 1438/009/11
The Recycling Village Ltd. Date of Receipt 19/03/2014
Unit 21 Sampled On 18/03/2014
Duleek Business Park Date Testing Commenced 19/03/2014

Duleek Received or Collected Delivered by Customer

Sample Type

Co. Meath Condition on Receipt Acceptable

Date of Report 14/04/2014

Customer Ref BH3 (GW)

Customer PO

Ref 2

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique	_{.e} .Result	Units	Acc.
Alkalinity (Ground Water)	102	Analytical Technique Colorimetry Colorimetry ICPMS IC	211	mg/L CaCO3	UKAS
Ammonia (Ground Water)	114	Colorimetry	<0.01	mg/L as N	UKAS
Arsenic (Ground Water)	177	ICPMS Out of the state of the s	1.434	ug/L	UKAS
Barium (Ground Water)	177	ICPMS See ATO	61.62	ug/L	UKAS
Boron (Ground Water)	177	ICPMS Outpour	173.6	ug/L	UKAS
Cadmium (Ground Water)	177	ICPMS COLUMN	0.141	ug/L	UKAS
Calcium (Ground Water)	184	ICPMS Dect wife	131.30	mg/L	UKAS
Chloride (Ground Water)	100	Colorimetry	24.81	mg/L	UKAS
Chromium (Ground Water)	177	ICPMS FORHER	5.377	ug/L	UKAS
Coliforms (Faecal)	140	Filtration/ Incubation 44C/ 24H	0	cfu/ 100ml	
Coliforms (Total)	140	Filtration/ Incubation 37C/ 24H	17	cfu/ 100ml	
Conductivity (Ground Water at 20C)	112	Electrometry	690	uscm -1@20C	UKAS
Copper (Ground Water)	177	ICPMS	12.58	ug/L	UKAS
Cyanide	138	Colorimetry	<5	ug/L	
Dissolved Oxygen (mg/l)	715	DO Meter	9.2	mg/L	
Fluoride (Ground Water)	115	Colorimetry	0.29	mg/L	UKAS
Iron (Ground Water)	177	ICPMS	765.1	ug/L	UKAS
Lead (Ground Water)	177	ICPMS	1.479	ug/L	UKAS
Magnesium (Ground Water)	184	ICPMS	10.01	mg/L	UKAS
Manganese (Ground Water)	177	ICPMS	60.1	ug/L	UKAS
Mercury (Ground water)	178	ICPMS	0.045	ug/L	UKAS
Nickel (Ground Water)	177	ICPMS	3.26	ug/L	UKAS
Nitrate (Ground Water)	103	Colorimetry	2.940	mg/L as N	UKAS
Nitrate as NO3	103	Calculation	13.02	mg/L as NO3	UKAS

Signed : A Horizon

Aoife Harmon - Technical Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

All organic results are analysed as received and all results are corrected for dry weight at 104 C

Results shall not be reproduced, except in full, without the approval of Fitz Scientific

Results contained in this report relate only to the samples tested

(P): Presumptive Results

**The analytical result for this parameter may not be reflective of the concentration present at the time of sampling. The maximum recommended preservation time for this parameter has been exceeded.





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Unit 35, Boyne Business Park, Drogheda, Co. Louth Ireland

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Acceptable

Customer Nikita Coulter Lab Report Ref. No. 1438/009/11
The Recycling Village Ltd. Date of Receipt 19/03/2014
Unit 21 Sampled On 18/03/2014

Duleek Business Park

Date Testing Commenced

19/03/2014

Duleek

Received or Collected

Delivered by Customer

Co. Meath Condition on Receipt

Customer PO Date of Report 14/04/2014

Customer Ref BH3 (GW) Sample Type Groundwater

Ref 2

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique Colorimetry Calculation Colorimetry Electrometry GCMS Calculation Colorimetry ICPMS ICPMS ICPMS ICPMS ICPMS ICPMS Colorimetry Colorimetry Colorimetry Colorimetry Colorimetry Colorimetry Colorimetry	_{.e} .Result	Units	Acc.	
**Nitrite (Ground Water)	118	Colorimetry	<0.002	mg/L as N		
Nitrite as NO2	118	Calculation	<0.050	mg/L as NO2	UKAS	
Nitrogen (Total Oxidised) (Ground W	151	Colorimetry	2.94	mg/L as N	UKAS	
pH (Ground Water)	110	Electrometry	7.8	pH Units	UKAS	
Phenols (Total)	223	GCMS DIFP RITE	<0.10	ug/L		
Phosphate (Total as PO4)	166	Calculation	0.067	mg/L as PO4	UKAS	
Phosphate (Total) Ground Water	166	Colorimetry Dect wife	<0.024	mg/L as P	UKAS	
Potassium (Ground Water)	184	ICPMS (III. dit)	10.54	mg/L	UKAS	
Selenium (Ground Water)	177	ICPMS FOR HITE	1.792	ug/L	UKAS	
Silver	177	ICPMS &	<0.33	ug/L		
Sodium (Ground water)	184	ICPMS (N)	19.47	mg/L	UKAS	
Sulphate (Ground Water)	119	Colorimetry	200.63	mg/L	UKAS	
Total Organic Carbon	316	TOC analyser (NPOC)	7.04	mg/L		
Zinc (Ground Water)	177	ICPMS	11.29	ug/L	UKAS	

Signed : A House Aoife Harmon - Technical Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

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BH3 5m

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Tel: +353 41 9845440 Fax: +353 41 9846171 Web: www.fitzsci.ie email info@fitzsci.ie

Customer Nikita Coulter Lab Report Ref. No. 1438/009/09
The Recycling Village Ltd. Date of Receipt 19/03/2014
Unit 21 Sampled On 18/03/2014
Duleek Business Park Date Testing Commenced 19/03/2014

Duleek Business Park Date Testing Commenced 19/03/2014

Duleek Received or Collected Delivered by Customer

Co. Meath Condition on Receipt Acceptable

Condition on Receipt Acceptable
Date of Report 11/04/2014

Sample Type Soil

Customer Ref Ref 2

Customer PO

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique Drying @ 104 C GCMS GCMS GCMS ICPMS ICP-OES ICPMS ICP-OES ICP-OES ICP-OES ICP-OES ICP-OES ICPOES IC	_{.e} .Result	Units	Acc.
% Dry Matter	302	Drying @ 104 C	83.59	%	
Acenaphthene (Soil)	200	GCMS	<0.05	mg/Kg	
Acenaphthylene (Soil)	200	GCMS	<0.05	mg/Kg	
Anthracene (Soil)	200	GCMS SEE S	<0.05	mg/Kg	
Antimony (Leachate)	128	ICPMS DIFFERENCE	15.19	ug/Kg	
Antimony Solid (OES)	224	ICP-OES GOT THE	412.68	ug/Kg	
Arsenic (Leachate)	128	ICPMS Dect wife	47.13	ug/Kg	
Arsenic Solid (OES)	224	ICP-OES in gitte	6594.04	ug/Kg	
Barium (Leachate)	128	ICPMS CONTROL	883.7	ug/Kg	
Barium Solid (OES)	224	ICP-OES	9635.96	ug/Kg	
Benzene (Soil)	198	GC-FID	<0.5	mg/Kg	
Benzo(a)anthracene (Soil)	200	GCMS offs	<0.05	mg/Kg	
Benzo(a)pyrene (Soil)	200	GCMS	<0.05	mg/Kg	
Benzo(b)fluoranthene (Soil)	200	GCMS	<0.05	mg/Kg	
Benzo(ghi)perylene (Soil)	200	GCMS	<0.05	mg/Kg	
Benzo(k)fluoranthene (Soil)	200	GCMS	<0.05	mg/Kg	
BTEX (soil)	198	GC-FID	<0.5	mg/Kg	
Cadmium (Leachate)	128	ICPMS	< 0.09	ug/Kg	
Cadmium Solid (OES)	224	ICP-OES	<10.00	ug/Kg	
Chloride (Leachate WAC)	190	IC	9.32	mg/Kg	
Chloride (Solid)	100	Colorimetry	8.69	mg/Kg	
Chromium (Leachate)	128	ICPMS	234.8	ug/Kg	
Chromium Solid (OES)	224	ICP-OES	1792.88	ug/Kg	
Chrysene (Soil)	200	GCMS	< 0.05	mg/Kg	

Signed : A House Aoife Harmon - Technical Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

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Unit 35,

Boyne Business Park,

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Tel: +353 41 9845440 Fax: +353 41 9846171 Web: www.fitzsci.ie email info@fitzsci.ie

Customer Nikita Coulter Lab Report Ref. No. 1438/009/09
The Recycling Village Ltd. Date of Receipt 19/03/2014
Unit 21 Sampled On 18/03/2014
Duleek Business Park Date Testing Commenced 19/03/2014

Duleek Received or Collected Delivered by Customer

Co. Meath Condition on Receipt Acceptable

Date of Report 11/04/2014

Customer Ref BH3 5m Sample Type Soil

Ref 2

Customer PO

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique ICPMS ICP-OES GCMS GCMS TOC Analyser GC-FID GCMS GCMS IC Colorimetry GCMS ICPMS ICPMS ICPMS ICPOES I	یږ∵Result	Units	Acc.
Copper (Leachate)	128	ICPMS	105.5	ug/Kg	
Copper Solid (OES)	224	ICP-OES	19757.4	ug/Kg	
Coronene (Soil)	200	GCMS Out 9	<0.05	mg/Kg	
Dibenzo(ah)anthracene (Soil)	200	GCMS SE ST	<0.05	mg/Kg	
Dissolved Organic Carbon (Leachate	316	TOC Analyser	139.6	mg/Kg	
Ethylbenzene (Soil)	198	GC-FID GOT LIGHT LEEF	<0.5	mg/Kg	
Fluoranthene (Soil)	200	GCMS geet wife	< 0.05	mg/Kg	
Fluorene (Soil)	200	GCMS HISTORY	< 0.05	mg/Kg	
Fluoride (Leachate WAC)	190	IC FOTOTIVE	2.40	mg/Kg	
Fluoride (Solid)	115	Colorimetry &	2.02	mg/Kg	
Indeno(1,2,3-cd)pyrene (Soil)	200	GCMS OF	<0.05	mg/Kg	
Lead (Leachate)	128	ICPMS of State	22.42	ug/Kg	
Lead Solid (OES)	224	ICP-OES	13362.1	ug/Kg	
m-& p-Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
Mercury (Leachate)	128	ICPMS	<0.2	ug/Kg	
Mercury (Solid)	178	ICPMS	47.47	ug/Kg	
Mineral Oil (soil)	327	GC-FID	5.55	mg/Kg	
Molybdenum (Leachate)	128	ICPMS	10.66	ug/Kg	
Molybdenum Solid (OES)	228	ICP-OES	345.197	ug/Kg	
Naphthalene (Soil)	200	GCMS	< 0.05	mg/Kg	
Nickel (Leachate)	128	ICPMS	94.1	ug/Kg	
Nickel Solid (OES)	177	ICP-OES	32632.9	ug/Kg	
o-Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
PAH soil (Sum of 17)	200	GCMS	< 0.05	mg/Kg	

Signed : A Horacon Aoife Harmon - Technical Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

All organic results are analysed as received and all results are corrected for dry weight at 104 C

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(P): Presumptive Results

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BH3 5m

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Unit 35,

Boyne Business Park,

Drogheda, Co. Louth Ireland

Tel: +353 41 9845440 Fax: +353 41 9846171 Web: www.fitzsci.ie info@fitzsci.ie email

Lab Report Ref. No. 1438/009/09 Customer **Nikita Coulter** Date of Receipt 19/03/2014 The Recycling Village Ltd. Sampled On 18/03/2014 **Duleek Business Park**

Date Testing Commenced 19/03/2014

Duleek Received or Collected **Delivered by Customer**

Co. Meath **Condition on Receipt** Acceptable Date of Report 11/04/2014

> Sample Type Soil

Ref 2

Customer PO

Customer Ref

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique	Result	Units	Acc.
PCB Total of 7 Congeners	167	GCMS GCMS Colorimetry GCMS ICP-OES IC Colorimetry TOC Analyses of High the transfer of the tra	<0.005	mg/Kg	
Phenanthrene (Soil)	200	GCMS	<0.05	mg/Kg	
Phenol Index (Leachate)	128	Colorimetry	0.02	mg/Kg	
Pyrene (Soil)	200	GCMS GCMS	< 0.05	mg/Kg	
Selenium (Leachate)	128	ICPMS Juff diff	72.44	ug/Kg	
Selenium Solid (OES)	224	ICP-OES COT STEET	1323.5	ug/Kg	
Sulphate (Leachate WAC)	190	IC OBOUT SWIFE	21.94	mg/Kg	
Sulphate (Solid)	119	Colorimetry	10.89	mg/Kg as SO4	
TOC (Soil)	315	TOC Analyse (Constitution of the Constitution	<1.0	%	
Total Dissolved Solids (Leachate)	128		1610	mg/Kg	
Total Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
Zinc (Leachate)	128	GC-FID CPMS of Set 1	167.6	ug/Kg	
Zinc Solid (OES)	224	ICP-OES	32025.6	ug/Kg	

Signed: A Hovernoon Aoife Harmon - Technical Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

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BH3 2.5m

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email info@fitzsci.ie

Customer Nikita Coulter Lab Report Ref. No. 1438/009/08
The Recycling Village Ltd. Date of Receipt 19/03/2014
Unit 21 Sampled On 18/03/2014

Duleek Business Park

Date Testing Commenced

19/03/2014

Duleek

Received or Collected

Delivered by Customer

Co. Meath Condition on Receipt Acceptable

Date of Report 11/04/2014

Sample Type Soil

Ref 2

Customer PO

Customer Ref

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique Drying @ 104 C GCMS GCMS GCMS ICPMS ICP-OES ICPMS ICP-OES ICP-OES ICP-OES ICP-OES ICP-OES ICPOES IC	_ی .Result	Units	Acc.
% Dry Matter	302	Drying @ 104 C	79.88	%	
Acenaphthene (Soil)	200	GCMS	<0.05	mg/Kg	
Acenaphthylene (Soil)	200	GCMS	<0.05	mg/Kg	
Anthracene (Soil)	200	GCMS SE S	<0.05	mg/Kg	
Antimony (Leachate)	128	ICPMS JUIT QUITE	25.97	ug/Kg	
Antimony Solid (OES)	224	ICP-OES GOT THE	354.06	ug/Kg	
Arsenic (Leachate)	128	ICPMS Dect wife	135.7	ug/Kg	
Arsenic Solid (OES)	224	ICP-OES in diff	4464.46	ug/Kg	
Barium (Leachate)	128	ICPMS CONTROL	1326	ug/Kg	
Barium Solid (OES)	224	ICP-OES	51053.7	ug/Kg	
Benzene (Soil)	198	GC-FID	<0.5	mg/Kg	
Benzo(a)anthracene (Soil)	200	GCMS offs	< 0.05	mg/Kg	
Benzo(a)pyrene (Soil)	200	GCMS	< 0.05	mg/Kg	
Benzo(b)fluoranthene (Soil)	200	GCMS	< 0.05	mg/Kg	
Benzo(ghi)perylene (Soil)	200	GCMS	< 0.05	mg/Kg	
Benzo(k)fluoranthene (Soil)	200	GCMS	<0.05	mg/Kg	
BTEX (soil)	198	GC-FID	<0.5	mg/Kg	
Cadmium (Leachate)	128	ICPMS	9.344	ug/Kg	
Cadmium Solid (OES)	224	ICP-OES	345.309	ug/Kg	
Chloride (Leachate WAC)	190	IC	9.50	mg/Kg	
Chloride (Solid)	100	Colorimetry	8.85	mg/Kg	
Chromium (Leachate)	128	ICPMS	705.3	ug/Kg	
Chromium Solid (OES)	224	ICP-OES	11570.7	ug/Kg	
Chrysene (Soil)	200	GCMS	< 0.05	mg/Kg	

Signed: A House Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

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Results contained in this report relate only to the samples tested

(P): Presumptive Results

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Duleek

Co. Meath

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Boyne Business Park,

Drogheda, Co. Louth Ireland

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Customer Nikita Coulter Lab Report Ref. No. 1438/009/08
The Recycling Village Ltd. Date of Receipt 19/03/2014
Unit 21 Sampled On 18/03/2014
Duleek Business Park Date Testing Commenced 19/03/2014

Date Testing Commenced 19/03/2014

Received or Collected Delivered by Customer

Condition on Receipt Acceptable

Date of Report 11/04/2014

Sample Type Soil

Customer PO

Customer Ref BH3 2.5m

Ref 2

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique ICPMS ICP-OES GCMS GCMS TOC Analyser GC-FID GCMS GCMS IC Colorimetry GCMS ICPMS of the first transfer of the fi	یResult	Units	Acc.
Copper (Leachate)	128	ICPMS	348.4	ug/Kg	
Copper Solid (OES)	224	ICP-OES	23632.2	ug/Kg	
Coronene (Soil)	200	GCMS ONLY	<0.05	mg/Kg	
Dibenzo(ah)anthracene (Soil)	200	GCMS SEE ALL	< 0.05	mg/Kg	
Dissolved Organic Carbon (Leachate	316	TOC Analyser	162.2	mg/Kg	
Ethylbenzene (Soil)	198	GC-FID GOT PATER	<0.5	mg/Kg	
Fluoranthene (Soil)	200	GCMS Dect white	< 0.05	mg/Kg	
Fluorene (Soil)	200	GCMS HISTORY	< 0.05	mg/Kg	
Fluoride (Leachate WAC)	190	IC FORNITE	2.68	mg/Kg	
Fluoride (Solid)	115	Colorimetry 5000	2.13	mg/Kg	
Indeno(1,2,3-cd)pyrene (Soil)	200	GCMS CONTRACTOR	< 0.05	mg/Kg	
Lead (Leachate)	128	ICPMS 600	72.7	ug/Kg	
Lead Solid (OES)	224	ICP-OES	12445.6	ug/Kg	
m-& p-Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
Mercury (Leachate)	128	ICPMS	2.9	ug/Kg	
Mercury (Solid)	178	ICPMS	77.09	ug/Kg	
Mineral Oil (soil)	327	GC-FID	6.46	mg/Kg	
Molybdenum (Leachate)	128	ICPMS	10.78	ug/Kg	
Molybdenum Solid (OES)	228	ICP-OES	481.31	ug/Kg	
Naphthalene (Soil)	200	GCMS	< 0.05	mg/Kg	
Nickel (Leachate)	128	ICPMS	499.6	ug/Kg	
Nickel Solid (OES)	177	ICP-OES	29380.9	ug/Kg	
o-Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
PAH soil (Sum of 17)	200	GCMS	< 0.05	mg/Kg	

Signed : A Horizon

Aoife Harmon - Technical Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

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BH3 2.5m

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Unit 35,

Boyne Business Park,

Drogheda, Co. Louth Ireland

Tel: +353 41 9845440 Fax: +353 41 9846171 Web: www.fitzsci.ie info@fitzsci.ie email

Lab Report Ref. No. 1438/009/08 Customer **Nikita Coulter** Date of Receipt 19/03/2014 The Recycling Village Ltd. Sampled On 18/03/2014 **Duleek Business Park**

Date Testing Commenced 19/03/2014

Duleek Received or Collected **Delivered by Customer** Co. Meath

Condition on Receipt Acceptable Date of Report 11/04/2014

> Sample Type Soil

Ref 2

Customer PO

Customer Ref

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique GCMS GCMS Colorimetry GCMS ICPMS ICP-OES IC Colorimetry TOC Analyses of partial towners Evaporation/ Gravimetry	_, Result	Units	Acc.
PCB Total of 7 Congeners	167	GCMS	<0.005	mg/Kg	
Phenanthrene (Soil)	200	GCMS	<0.05	mg/Kg	
Phenol Index (Leachate)	128	Colorimetry	0.04	mg/Kg	
Pyrene (Soil)	200	GCMS SE	<0.05	mg/Kg	
Selenium (Leachate)	128	ICPMS DIFFERENCE	21.67	ug/Kg	
Selenium Solid (OES)	224	ICP-OES TOTAL TECH	3153.62	ug/Kg	
Sulphate (Leachate WAC)	190	IC Dect wife	16.96	mg/Kg	
Sulphate (Solid)	119	Colorimetry	<1.39	mg/Kg as SO4	
TOC (Soil)	315	TOC Analyse (O)	<1.0	%	
Total Dissolved Solids (Leachate)	128		1950	mg/Kg	
Total Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
Zinc (Leachate)	128	GC-FID CENTO	851.7	ug/Kg	
Zinc Solid (OES)	224	ICP-OES	48259.6	ug/Kg	

Signed: A Hoverney Aoife Harmon - Technical Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

All organic results are analysed as received and all results are corrected for dry weight at 104 C

Results shall not be reproduced, except in full, without the approval of Fitz Scientific

Results contained in this report relate only to the samples tested

(P): Presumptive Results

**The analytical result for this parameter may not be reflective of the concentration present at the time of sampling. The maximum recommended preservation time for this parameter has been exceeded.



Co. Meath

BH3 0m

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Customer Nikita Coulter Lab Report Ref. No. 1438/009/07
The Recycling Village Ltd. Date of Receipt 19/03/2014
Unit 21 Sampled On 18/03/2014

Duleek Business Park

Date Testing Commenced

19/03/2014

Duleek

Received or Collected

Delivered by Customer

Condition on Receipt Acceptable

Date of Report 11/04/2014

Sample Type Soil

Ref 2

Customer PO

Customer Ref

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique Drying @ 104 C GCMS GCMS GCMS ICPMS ICP-OES ICPMS ICP-OES ICP-OES ICP-OES ICP-OES ICP-OES ICPOES IC	یکResult	Units	Acc.
% Dry Matter	302	Drying @ 104 C	80.72	%	
Acenaphthene (Soil)	200	GCMS	<0.05	mg/Kg	
Acenaphthylene (Soil)	200	GCMS	<0.05	mg/Kg	
Anthracene (Soil)	200	GCMS SE S	<0.05	mg/Kg	
Antimony (Leachate)	128	ICPMS JUIT QUITE	36.02	ug/Kg	
Antimony Solid (OES)	224	ICP-OES GOT THE	498.208	ug/Kg	
Arsenic (Leachate)	128	ICPMS Dect wife	76.61	ug/Kg	
Arsenic Solid (OES)	224	ICP-OES in diff	6738.73	ug/Kg	
Barium (Leachate)	128	ICPMS CONTROL	998.6	ug/Kg	
Barium Solid (OES)	224	ICP-OES	48674.9	ug/Kg	
Benzene (Soil)	198	GC-FID	<0.5	mg/Kg	
Benzo(a)anthracene (Soil)	200	GCMS offs	< 0.05	mg/Kg	
Benzo(a)pyrene (Soil)	200	GCMS	< 0.05	mg/Kg	
Benzo(b)fluoranthene (Soil)	200	GCMS	< 0.05	mg/Kg	
Benzo(ghi)perylene (Soil)	200	GCMS	< 0.05	mg/Kg	
Benzo(k)fluoranthene (Soil)	200	GCMS	< 0.05	mg/Kg	
BTEX (soil)	198	GC-FID	<0.5	mg/Kg	
Cadmium (Leachate)	128	ICPMS	4.448	ug/Kg	
Cadmium Solid (OES)	224	ICP-OES	471.803	ug/Kg	
Chloride (Leachate WAC)	190	IC	15.82	mg/Kg	
Chloride (Solid)	100	Colorimetry	7.64	mg/Kg	
Chromium (Leachate)	128	ICPMS	413.4	ug/Kg	
Chromium Solid (OES)	224	ICP-OES	13175.2	ug/Kg	
Chrysene (Soil)	200	GCMS	<0.05	mg/Kg	

Signed : A However Aoife Harmon - Technical Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

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(P): Presumptive Results

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Customer Nikita Coulter Lab Report Ref. No. 1438/009/07
The Recycling Village Ltd. Date of Receipt 19/03/2014
Unit 21 Sampled On 18/03/2014

Duleek Business Park

Date Testing Commenced

19/03/2014

Duleek

Received or Collected

Delivered by Customer

Co. Meath Condition on Receipt Acceptable

Date of Report 11/04/2014

Sample Type Soil

Ref 2

Customer PO

Customer Ref

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique ICPMS ICP-OES GCMS GCMS TOC Analyser GC-FID GCMS GCMS IC Colorimetry GCMS ICPMS offertified to the control of the contro	ري.Result	Units	Acc.
Copper (Leachate)	128	ICPMS	284.7	ug/Kg	
Copper Solid (OES)	224	ICP-OES	22633.8	ug/Kg	
Coronene (Soil)	200	GCMS only	<0.05	mg/Kg	
Dibenzo(ah)anthracene (Soil)	200	GCMS Set ARC	< 0.05	mg/Kg	
Dissolved Organic Carbon (Leachate	316	TOC Analyser	176.3	mg/Kg	
Ethylbenzene (Soil)	198	GC-FID GOT PATE	<0.5	mg/Kg	
Fluoranthene (Soil)	200	GCMS geotrapie	< 0.05	mg/Kg	
Fluorene (Soil)	200	GCMS HE CHILD	< 0.05	mg/Kg	
Fluoride (Leachate WAC)	190	IC FORNITE	6.60	mg/Kg	
Fluoride (Solid)	115	Colorimetry 5000	2.51	mg/Kg	
Indeno(1,2,3-cd)pyrene (Soil)	200	GCMS CONTRACTOR	< 0.05	mg/Kg	
Lead (Leachate)	128	ICPMS of	62.48	ug/Kg	
Lead Solid (OES)	224	ICP-OES	10316.9	ug/Kg	
m-& p-Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
Mercury (Leachate)	128	ICPMS	0.539	ug/Kg	
Mercury (Solid)	178	ICPMS	49.1	ug/Kg	
Mineral Oil (soil)	327	GC-FID	<2.5	mg/Kg	
Molybdenum (Leachate)	128	ICPMS	9.957	ug/Kg	
Molybdenum Solid (OES)	228	ICP-OES	730.77	ug/Kg	
Naphthalene (Soil)	200	GCMS	< 0.05	mg/Kg	
Nickel (Leachate)	128	ICPMS	288.2	ug/Kg	
Nickel Solid (OES)	177	ICP-OES	24590.9	ug/Kg	
o-Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
PAH soil (Sum of 17)	200	GCMS	< 0.05	mg/Kg	

Signed : A Horacon Aoife Harmon - Technical Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

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Customer Nikita Coulter Lab Report Ref. No. 1438/009/07
The Recycling Village Ltd. Date of Receipt 19/03/2014
Unit 21 Sampled On 18/03/2014

Duleek Business Park

Date Testing Commenced

19/03/2014

Duleek

Received or Collected

Delivered by Customer

Co. Meath Condition on Receipt Acceptable

Date of Report 11/04/2014

Customer Ref BH3 0m Sample Type Soil

Ref 2

Customer PO

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique GCMS GCMS Colorimetry GCMS ICPMS ICP-OES IC Colorimetry TOC Analyser of Height Height Tourner Tourner Technique GCMS ICP-OES IC	ی∨Result	Units	Acc.
PCB Total of 7 Congeners	167	GCMS	<0.005	mg/Kg	
Phenanthrene (Soil)	200	GCMS	<0.05	mg/Kg	
Phenol Index (Leachate)	128	Colorimetry	0.02	mg/Kg	
Pyrene (Soil)	200	GCMS SEE SEE	<0.05	mg/Kg	
Selenium (Leachate)	128	ICPMS auffluite	61.07	ug/Kg	
Selenium Solid (OES)	224	ICP-OES	3217.35	ug/Kg	
Sulphate (Leachate WAC)	190	IC sectionine	117.26	mg/Kg	
Sulphate (Solid)	119	Colorimetry	62.16	mg/Kg as SO4	
TOC (Soil)	315	TOC Analyse (Street	<1.0	%	
Total Dissolved Solids (Leachate)	128	Evaporation/ Gravimetry	2910	mg/Kg	
Total Xylene (Soil)	198	GC-FID Sept.	<0.5	mg/Kg	
Zinc (Leachate)	128	ICPMS of State of the state of	485.2	ug/Kg	
Zinc Solid (OES)	224	ICP-OES	38621.4	ug/Kg	

Signed : A House Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

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Customer Nikita Coulter Lab Report Ref. No. 1438/009/10
The Recycling Village Ltd. Date of Receipt 19/03/2014
Unit 21 Sampled On 18/03/2014

Duleek Business Park

Date Testing Commenced

19/03/2014

Duleek

Received or Collected

Delivered by Customer

Condition on Receipt Acceptable

Date of Report 07/04/2014

Sample Type Groundwater

Customer PO
Customer Ref BH2 (GW)

Customer Ner

Ref 2

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Colorimetry Colorimetry ICPMS ICPMS ICPMS ICPMS ICPMS ICPMS ICPMS ICPMS Colorimetry ICPMS Filtration/ Incubation 44C/ 24H Filtration/ Incubation 37C/ 24H Electrometry ICPMS	_.	Units	Acc.
Alkalinity (Ground Water)	102	Colorimetry	70 ¹ 30	mg/L CaCO3	UKAS
Ammonia (Ground Water)	114	Colorimetry	0.42	mg/L as N	UKAS
Arsenic (Ground Water)	177	ICPMS Out of the state of the s	1.455	ug/L	UKAS
Barium (Ground Water)	177	ICPMS SEE A	68.97	ug/L	UKAS
Boron (Ground Water)	177	ICPMS authorite	134.2	ug/L	UKAS
Cadmium (Ground Water)	177	ICPMS ::OT P. TOTAL	0.18	ug/L	UKAS
Calcium (Ground Water)	184	ICPMS gedt wife	63.97	mg/L	UKAS
Chloride (Ground Water)	100	Colorimetry	73.59	mg/L	UKAS
Chromium (Ground Water)	177	ICPMS FORHITE	5.803	ug/L	UKAS
Coliforms (Faecal)	140	Filtration/ Incubation 44C/ 24H	0	cfu/ 100ml	
Coliforms (Total)	140	Filtration/ Incubation 37C/ 24H	0	cfu/ 100ml	
Conductivity (Ground Water at 20C)	112	Electrometry	476	uscm -1@20C	UKAS
Copper (Ground Water)	177	ICPMS	23.96	ug/L	UKAS
Cyanide	138	Colorimetry	<5	ug/L	
Dissolved Oxygen (mg/l)	715	DO Meter	6.5	mg/L	
Fluoride (Ground Water)	115	Colorimetry	0.50	mg/L	UKAS
Iron (Ground Water)	177	ICPMS	682.6	ug/L	UKAS
Lead (Ground Water)	177	ICPMS	12.52	ug/L	UKAS
Magnesium (Ground Water)	184	ICPMS	3.145	mg/L	UKAS
Manganese (Ground Water)	177	ICPMS	44.55	ug/L	UKAS
Mercury (Ground water)	178	ICPMS	< 0.04	ug/L	UKAS
Nickel (Ground Water)	177	ICPMS	7.195	ug/L	UKAS
Nitrate (Ground Water)	103	Colorimetry	0.990	mg/L as N	UKAS
Nitrate as NO3	103	Calculation	4.384	mg/L as NO3	UKAS

Signed: A Horenson - Technical Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

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Date: 07/04/2014



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Customer Nikita Coulter Lab Report Ref. No. 1438/009/10

The Recycling Village Ltd. Date of Receipt 19/03/2014

Unit 21 Sampled On 18/03/2014

Duleek Business Park Date Testing Commenced 19/03/2014

Duleek Business Park

Date Testing Commenced

19/03/2014

Duleek

Received or Collected

Delivered by Customer

Co. Meath Condition on Receipt

Date of Report 07/04/2014
Sample Type Groundwater

Customer Ref BH2 (GW)

Ref 2

Customer PO

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique	Result	Units	Acc.
**Nitrite (Ground Water)	118	Colorimetry Calculation Colorimetry Electrometry GCMS Calculation Colorimetry ICPMS	0.007	mg/L as N	
Nitrite as NO2	118	Calculation	<0.050	mg/L as NO2	UKAS
Nitrogen (Total Oxidised) (Ground W	151	Colorimetry	1.00	mg/L as N	UKAS
pH (Ground Water)	110	Electrometry	8.4	pH Units	UKAS
Phenols (Total)	223	GCMS authorite	<0.10	ug/L	
Phosphate (Total as PO4)	166	Calculation	0.086	mg/L as PO4	UKAS
Phosphate (Total) Ground Water	166	Colorimetry	0.028	mg/L as P	UKAS
Potassium (Ground Water)	184	ICPMS (IDS diff)	8.422	mg/L	UKAS
Selenium (Ground Water)	177	ICPMS FOR HITE	1.726	ug/L	UKAS
Silver	177	ICPMS &	<0.33	ug/L	
Sodium (Ground water)	184	ICPMS at	34.68	mg/L	UKAS
Sulphate (Ground Water)	119	Colorimetry	112.82	mg/L	UKAS
Total Organic Carbon	316	TOC analyser (NPOC)	5.76	mg/L	
Zinc (Ground Water)	177	ICPMS	29.25	ua/L	UKAS

Signed : A House Aoife Harmon - Technical Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

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Date: 07/04/2014



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Customer Nikita Coulter Lab Report Ref. No. 1438/009/06
The Recycling Village Ltd. Date of Receipt 19/03/2014
Unit 21 Sampled On 18/03/2014
Duleek Business Park Date Testing Commenced 19/03/2014

Duleek Received or Collected Delivered by Customer
Co. Meath Condition on Receipt Acceptable

Condition on Receipt Acceptable

Date of Report 11/04/2014

Customer Ref BH2 2m Sample Type Soil

Ref 2

Customer PO

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique Drying @ 104 C GCMS GCMS GCMS GCMS ICPMS ICP-OES ICPMS ICP-OES ICPS ICP-OES ICPS ICP-OES	یکResult	Units	Acc.
% Dry Matter	302	Drying @ 104 C	81.5	%	
Acenaphthene (Soil)	200	GCMS	<0.05	mg/Kg	
Acenaphthylene (Soil)	200	GCMS	<0.05	mg/Kg	
Anthracene (Soil)	200	GCMS SE ST	<0.05	mg/Kg	
Antimony (Leachate)	128	ICPMS DUPPELLINE	12.35	ug/Kg	
Antimony Solid (OES)	224	ICP-OES LOT I TECH	364.859	ug/Kg	
Arsenic (Leachate)	128	ICPMS DECUME	23.71	ug/Kg	
Arsenic Solid (OES)	224	ICP-OES TIPE THE	5160.46	ug/Kg	
Barium (Leachate)	128	ICPMS FORTH	702.1	ug/Kg	
Barium Solid (OES)	224	ICP-OES	96145.3	ug/Kg	
Benzene (Soil)	198	GC-FID	<0.5	mg/Kg	
Benzo(a)anthracene (Soil)	200	GCMS of	<0.05	mg/Kg	
Benzo(a)pyrene (Soil)	200	GCMS	<0.05	mg/Kg	
Benzo(b)fluoranthene (Soil)	200	GCMS	<0.05	mg/Kg	
Benzo(ghi)perylene (Soil)	200	GCMS	<0.05	mg/Kg	
Benzo(k)fluoranthene (Soil)	200	GCMS	<0.05	mg/Kg	
BTEX (soil)	198	GC-FID	<0.5	mg/Kg	
Cadmium (Leachate)	128	ICPMS	<0.09	ug/Kg	
Cadmium Solid (OES)	224	ICP-OES	293.275	ug/Kg	
Chloride (Leachate WAC)	190	IC	40.44	mg/Kg	
Chloride (Solid)	100	Colorimetry	22.36	mg/Kg	
Chromium (Leachate)	128	ICPMS	219.3	ug/Kg	
Chromium Solid (OES)	224	ICP-OES	16971.3	ug/Kg	
Chrysene (Soil)	200	GCMS	<0.05	mg/Kg	

Signed: A House Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

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Customer Nikita Coulter Lab Report Ref. No. 1438/009/06
The Recycling Village Ltd. Date of Receipt 19/03/2014
Unit 21 Sampled On 18/03/2014

 Duleek Business Park
 Date Testing Commenced
 19/03/2014

 Duleek
 Received or Collected
 Delivered by Customer

Co. Meath Condition on Receipt Acceptable

Date of Report 11/04/2014

Customer Ref BH2 2m Sample Type Soil

Ref 2

Customer PO

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique ICPMS ICP-OES GCMS GCMS TOC Analyser GC-FID GCMS GCMS IC Colorimetry GCMS ICPMS offertified to the control of the contro	یرResult	Units	Acc.
Copper (Leachate)	128	ICPMS	59.4	ug/Kg	
Copper Solid (OES)	224	ICP-OES	19702.4	ug/Kg	
Coronene (Soil)	200	GCMS Only	<0.05	mg/Kg	
Dibenzo(ah)anthracene (Soil)	200	GCMS SEE ALL	< 0.05	mg/Kg	
Dissolved Organic Carbon (Leachate	316	TOC Analyser	142.2	mg/Kg	
Ethylbenzene (Soil)	198	GC-FID ON PATER	<0.5	mg/Kg	
Fluoranthene (Soil)	200	GCMS geologic	< 0.05	mg/Kg	
Fluorene (Soil)	200	GCMS HISTORY	< 0.05	mg/Kg	
Fluoride (Leachate WAC)	190	IC FORNITE	4.72	mg/Kg	
Fluoride (Solid)	115	Colorimetry &	1.92	mg/Kg	
Indeno(1,2,3-cd)pyrene (Soil)	200	GCMS CONTRACTOR	<0.05	mg/Kg	
Lead (Leachate)	128	ICPMS of	1.311	ug/Kg	
Lead Solid (OES)	224	ICP-OES	9024.64	ug/Kg	
m-& p-Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
Mercury (Leachate)	128	ICPMS	0.342	ug/Kg	
Mercury (Solid)	178	ICPMS	<0.2	ug/Kg	
Mineral Oil (soil)	327	GC-FID	<2.5	mg/Kg	
Molybdenum (Leachate)	128	ICPMS	21.11	ug/Kg	
Molybdenum Solid (OES)	228	ICP-OES	1206.59	ug/Kg	
Naphthalene (Soil)	200	GCMS	< 0.05	mg/Kg	
Nickel (Leachate)	128	ICPMS	40.78	ug/Kg	
Nickel Solid (OES)	177	ICP-OES	27264.4	ug/Kg	
o-Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
PAH soil (Sum of 17)	200	GCMS	< 0.05	mg/Kg	

Signed : A Horizon

Aoife Harmon - Technical Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

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The Recycling Village Ltd. Date of Receipt 19/03/2014
Unit 21 Sampled On 18/03/2014
Duleek Business Park Date Testing Commenced 19/03/2014

Duleek Received or Collected Delivered by Customer

Co. Meath Condition on Receipt Acceptable

Date of Report 11/04/2014

BH2 2m Sample Type Soil

Ref 2

Customer PO

Customer Ref

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique GCMS GCMS Colorimetry GCMS ICPMS ICP-OES IC Colorimetry TOC Analyser of the first technique to the first technique	یResult	Units	Acc.
PCB Total of 7 Congeners	167	GCMS	<0.005	mg/Kg	
Phenanthrene (Soil)	200	GCMS	<0.05	mg/Kg	
Phenol Index (Leachate)	128	Colorimetry	0.04	mg/Kg	
Pyrene (Soil)	200	GCMS SEE A	<0.05	mg/Kg	
Selenium (Leachate)	128	ICPMS utile difference	327.1	ug/Kg	
Selenium Solid (OES)	224	ICP-OES	3605.59	ug/Kg	
Sulphate (Leachate WAC)	190	IC Dect wife	103.22	mg/Kg	
Sulphate (Solid)	119	Colorimetry	15.51	mg/Kg as SO4	
TOC (Soil)	315	TOC Analyser	<1.0	%	
Total Dissolved Solids (Leachate)	128	Evaporation/ Gravimetry	2860	mg/Kg	
Total Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
Zinc (Leachate)	128	GC-FID ENT	83.97	ug/Kg	
Zinc Solid (OES)	224	ICP-OES	47017.5	ug/Kg	

Signed : A House Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

All organic results are analysed as received and all results are corrected for dry weight at 104 C

Results shall not be reproduced, except in full, without the approval of Fitz Scientific

Results contained in this report relate only to the samples tested

(P): Presumptive Results

**The analytical result for this parameter may not be reflective of the concentration present at the time of sampling. The maximum recommended preservation time for this parameter has been exceeded.



BH2 1m

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Unit 35,

Boyne Business Park,

Drogheda, Co. Louth Ireland

Tel: +353 41 9845440 Fax: +353 41 9846171 Web: www.fitzsci.ie email info@fitzsci.ie

Customer Nikita Coulter Lab Report Ref. No. 1438/009/05
The Recycling Village Ltd. Date of Receipt 19/03/2014
Unit 21 Sampled On 18/03/2014
Duleek Business Park Date Testing Commenced 19/03/2014

 Duleek
 Received or Collected
 Delivered by Customer

 Co. Meath
 Condition on Receipt
 Acceptable

Meath Condition on Receipt Acceptable

Date of Report 11/04/2014

Sample Type Soil

Ref 2

Customer PO

Customer Ref

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique Drying @ 104 C GCMS GCMS GCMS GCMS ICPMS ICP-OES ICPMS ICP-OES ICPS ICP-OES ICPS ICP-OES	_{,&} ⋅Result	Units	Acc.
% Dry Matter	302	Drying @ 104 C	86.75	%	
Acenaphthene (Soil)	200	GCMS	· ~ 0.05	mg/Kg	
Acenaphthylene (Soil)	200	GCMS	(0.05	mg/Kg	
Anthracene (Soil)	200	GCMS SE A	<0.05	mg/Kg	
Antimony (Leachate)	128	ICPMS DUPPELLITE	15.51	ug/Kg	
Antimony Solid (OES)	224	ICP-OES GOT THE	474.41	ug/Kg	
Arsenic (Leachate)	128	ICPMS peolitaine	27.36	ug/Kg	
Arsenic Solid (OES)	224	ICP-OES TIPE THE	5886.82	ug/Kg	
Barium (Leachate)	128	ICPMS FORMING	52.08	ug/Kg	
Barium Solid (OES)	224	ICP-OES	266276	ug/Kg	
Benzene (Soil)	198	GC-FID	<0.5	mg/Kg	
Benzo(a)anthracene (Soil)	200	GCMS of	< 0.05	mg/Kg	
Benzo(a)pyrene (Soil)	200	GCMS	< 0.05	mg/Kg	
Benzo(b)fluoranthene (Soil)	200	GCMS	< 0.05	mg/Kg	
Benzo(ghi)perylene (Soil)	200	GCMS	< 0.05	mg/Kg	
Benzo(k)fluoranthene (Soil)	200	GCMS	< 0.05	mg/Kg	
BTEX (soil)	198	GC-FID	<0.5	mg/Kg	
Cadmium (Leachate)	128	ICPMS	< 0.09	ug/Kg	
Cadmium Solid (OES)	224	ICP-OES	490.061	ug/Kg	
Chloride (Leachate WAC)	190	IC	7.86	mg/Kg	
Chloride (Solid)	100	Colorimetry	10.58	mg/Kg	
Chromium (Leachate)	128	ICPMS	360	ug/Kg	
Chromium Solid (OES)	224	ICP-OES	8527.72	ug/Kg	
Chrysene (Soil)	200	GCMS	< 0.05	mg/Kg	

Signed: A House Aoife Harmon - Technical Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

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Duleek Received or Collected Delivered by Customer

Co. Meath Condition on Receipt Acceptable

Date of Report 11/04/2014

Sample Type Soil

Ref 2

Customer PO

Customer Ref

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique ICPMS ICP-OES GCMS GCMS TOC Analyser GC-FID GCMS GCMS IC Colorimetry GCMS ICPMS of the first transfer of the fi	_{.e} .Result	Units	Acc.
Copper (Leachate)	128	ICPMS	7174	ug/Kg	
Copper Solid (OES)	224	ICP-OES	19598.6	ug/Kg	
Coronene (Soil)	200	GCMS ONLY	<0.05	mg/Kg	
Dibenzo(ah)anthracene (Soil)	200	GCMS SE ALO	< 0.05	mg/Kg	
Dissolved Organic Carbon (Leachate	316	TOC Analyser	57.1	mg/Kg	
Ethylbenzene (Soil)	198	GC-FID GOT PATER	<0.5	mg/Kg	
Fluoranthene (Soil)	200	GCMS Dect white	< 0.05	mg/Kg	
Fluorene (Soil)	200	GCMS HISTORY	< 0.05	mg/Kg	
Fluoride (Leachate WAC)	190	IC FORNITE	2.96	mg/Kg	
Fluoride (Solid)	115	Colorimetry 5000	2.07	mg/Kg	
Indeno(1,2,3-cd)pyrene (Soil)	200	GCMS CONTRACTOR OF THE CONTRAC	<0.05	mg/Kg	
Lead (Leachate)	128	ICPMS 600	<0.38	ug/Kg	
Lead Solid (OES)	224	ICP-OES	7653.02	ug/Kg	
m-& p-Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
Mercury (Leachate)	128	ICPMS	1.129	ug/Kg	
Mercury (Solid)	178	ICPMS	<0.2	ug/Kg	
Mineral Oil (soil)	327	GC-FID	<2.5	mg/Kg	
Molybdenum (Leachate)	128	ICPMS	13.94	ug/Kg	
Molybdenum Solid (OES)	228	ICP-OES	478.331	ug/Kg	
Naphthalene (Soil)	200	GCMS	< 0.05	mg/Kg	
Nickel (Leachate)	128	ICPMS	8.152	ug/Kg	
Nickel Solid (OES)	177	ICP-OES	23955.7	ug/Kg	
o-Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
PAH soil (Sum of 17)	200	GCMS	< 0.05	mg/Kg	

Signed : A Horizon

Aoife Harmon - Technical Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

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The Recycling Village Ltd. Date of Receipt 19/03/2014
Unit 21 Sampled On 18/03/2014
Duleek Business Park Date Testing Commenced 19/03/2014

Duleek Received or Collected Delivered by Customer

Co. Meath Condition on Receipt Acceptable

Date of Report 11/04/2014

Customer Ref BH2 1m Sample Type Soil

Ref 2

Customer PO

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique GCMS GCMS Colorimetry GCMS ICPMS ICP-OES IC Colorimetry TOC Analyser of the coloring to the colo	_, Result	Units	Acc.
PCB Total of 7 Congeners	167	GCMS	<0.005	mg/Kg	
Phenanthrene (Soil)	200	GCMS	<0.05	mg/Kg	
Phenol Index (Leachate)	128	Colorimetry	0.02	mg/Kg	
Pyrene (Soil)	200	GCMS SEE A	<0.05	mg/Kg	
Selenium (Leachate)	128	ICPMS UITO QUITE	41.67	ug/Kg	
Selenium Solid (OES)	224	ICP-OES CONTRACTOR	3250.53	ug/Kg	
Sulphate (Leachate WAC)	190	IC Dect wife	99.88	mg/Kg	
Sulphate (Solid)	119	Colorimetry	4.6	mg/Kg as SO4	
TOC (Soil)	315	TOC Analyser of the	3.724	%	
Total Dissolved Solids (Leachate)	128	Evaporation/ @ravimetry	2060	mg/Kg	
Total Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
Zinc (Leachate)	128	GC-FID BUT C	6.963	ug/Kg	
Zinc Solid (OES)	224	ICP-OES	38391.5	ug/Kg	

Signed : A House Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

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(P): Presumptive Results

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Customer Nikita Coulter Lab Report Ref. No. 1438/009/04
The Recycling Village Ltd. Date of Receipt 19/03/2014
Unit 21 Sampled On 18/03/2014

Duleek Business Park

Date Testing Commenced

19/03/2014

Duleek

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Co. Meath Condition on Receipt Acceptable

Date of Report 11/04/2014

Customer Ref BH2 0m Sample Type Soil

Ref 2

Customer PO

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique Drying @ 104 C GCMS GCMS GCMS GCMS ICPMS ICP-OES ICPMS ICP-OES ICPMS ICP-OES ICP-OES ICP-OES ICP-OES ICPMS ICP-OES ICP-O	ی∨Result	Units	Acc.
% Dry Matter	302	Drying @ 104 C	90.09	%	
Acenaphthene (Soil)	200	GCMS	<0.05	mg/Kg	
Acenaphthylene (Soil)	200	GCMS	<0.05	mg/Kg	
Anthracene (Soil)	200	GCMS GCF AT	<0.05	mg/Kg	
Antimony (Leachate)	128	ICPMS THE QUITE	5.24	ug/Kg	
Antimony Solid (OES)	224	ICP-OES COLUMN	<10	ug/Kg	
Arsenic (Leachate)	128	ICPMS Dect wife	18.61	ug/Kg	
Arsenic Solid (OES)	224	ICP-OES HISTAIL	2912.43	ug/Kg	
Barium (Leachate)	128	ICPMS FOR THE	340.1	ug/Kg	
Barium Solid (OES)	224	ICP-OES	36640.7	ug/Kg	
Benzene (Soil)	198	GC-FID	<0.5	mg/Kg	
Benzo(a)anthracene (Soil)	200	GCMS offs	< 0.05	mg/Kg	
Benzo(a)pyrene (Soil)	200	GCMS	< 0.05	mg/Kg	
Benzo(b)fluoranthene (Soil)	200	GCMS	< 0.05	mg/Kg	
Benzo(ghi)perylene (Soil)	200	GCMS	< 0.05	mg/Kg	
Benzo(k)fluoranthene (Soil)	200	GCMS	< 0.05	mg/Kg	
BTEX (soil)	198	GC-FID	<0.5	mg/Kg	
Cadmium (Leachate)	128	ICPMS	0.452	ug/Kg	
Cadmium Solid (OES)	224	ICP-OES	214.277	ug/Kg	
Chloride (Leachate WAC)	190	IC	17.18	mg/Kg	
Chloride (Solid)	100	Colorimetry	7.85	mg/Kg	
Chromium (Leachate)	128	ICPMS	203.1	ug/Kg	
Chromium Solid (OES)	224	ICP-OES	8696.86	ug/Kg	
Chrysene (Soil)	200	GCMS	< 0.05	mg/Kg	

Signed: A House Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

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The Recycling Village Ltd. Date of Receipt 19/03/2014
Unit 21 Sampled On 18/03/2014
Duleek Business Park Date Testing Commenced 19/03/2014

Duleek Business Park

Date Testing Commenced 19/03/2014

Duleek

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Date of Report 11/04/2014

Sample Type Soil

Ref 2

Customer PO

Customer Ref

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique ICPMS ICP-OES GCMS GCMS TOC Analyser GC-FID GCMS GCMS IC Colorimetry GCMS ICPMS offertified to the control of the contro	یږ∙Result	Units	Acc.
Copper (Leachate)	128	ICPMS	49.67	ug/Kg	
Copper Solid (OES)	224	ICP-OES	11871.4	ug/Kg	
Coronene (Soil)	200	GCMS Out of	<0.05	mg/Kg	
Dibenzo(ah)anthracene (Soil)	200	GCMS Set ARC	<0.05	mg/Kg	
Dissolved Organic Carbon (Leachate	316	TOC Analyser	65.9	mg/Kg	
Ethylbenzene (Soil)	198	GC-FID GOT PATE	<0.5	mg/Kg	
Fluoranthene (Soil)	200	GCMS geologic	<0.05	mg/Kg	
Fluorene (Soil)	200	GCMS HE CHILD	<0.05	mg/Kg	
Fluoride (Leachate WAC)	190	IC FORNITE	3.86	mg/Kg	
Fluoride (Solid)	115	Colorimetry 5000	1.98	mg/Kg	
Indeno(1,2,3-cd)pyrene (Soil)	200	GCMS ST	<0.05	mg/Kg	
Lead (Leachate)	128	ICPMS of	1.787	ug/Kg	
Lead Solid (OES)	224	ICP-OES	6306.73	ug/Kg	
m-& p-Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
Mercury (Leachate)	128	ICPMS	1.654	ug/Kg	
Mercury (Solid)	178	ICPMS	9.618	ug/Kg	
Mineral Oil (soil)	327	GC-FID	3.52	mg/Kg	
Molybdenum (Leachate)	128	ICPMS	19.97	ug/Kg	
Molybdenum Solid (OES)	228	ICP-OES	747.518	ug/Kg	
Naphthalene (Soil)	200	GCMS	<0.05	mg/Kg	
Nickel (Leachate)	128	ICPMS	60.27	ug/Kg	
Nickel Solid (OES)	177	ICP-OES	13003.2	ug/Kg	
o-Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
PAH soil (Sum of 17)	200	GCMS	<0.05	mg/Kg	

Signed : A Horacon Aoife Harmon - Technical Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

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Customer Nikita Coulter Lab Report Ref. No. 1438/009/04
The Recycling Village Ltd. Date of Receipt 19/03/2014
Unit 21 Sampled On 18/03/2014

 Duleek Business Park
 Date Testing Commenced
 19/03/2014

 Duleek
 Received or Collected
 Delivered by Customer

Co. Meath Condition on Receipt Acceptable

Date of Report 11/04/2014

Sample Type Soil

Ref 2

Customer PO

Customer Ref

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique GCMS GCMS Colorimetry GCMS ICPMS ICP-OES IC Colorimetry TOC Analyses of Bright Harden Francisco (Gravimetry) Evaporation (Gravimetry)	_ی .Result	Units	Acc.
PCB Total of 7 Congeners	167	GCMS	<0.005	mg/Kg	
Phenanthrene (Soil)	200	GCMS	<0.05	mg/Kg	
Phenol Index (Leachate)	128	Colorimetry	0.04	mg/Kg	
Pyrene (Soil)	200	GCMS SEE SEE SEE	<0.05	mg/Kg	
Selenium (Leachate)	128	ICPMS NIFT THIS	8.943	ug/Kg	
Selenium Solid (OES)	224	ICP-OES	1582.64	ug/Kg	
Sulphate (Leachate WAC)	190	IC geet whe	49.98	mg/Kg	
Sulphate (Solid)	119	Colorimetry	112.32	mg/Kg as SO4	
TOC (Soil)	315	TOC Analyser	<1.0	%	
Total Dissolved Solids (Leachate)	128		1590	mg/Kg	
Total Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
Zinc (Leachate)	128	GC-FID ICPMS of Section 1	133	ug/Kg	
Zinc Solid (OES)	224	ICP-OES	22248.5	ug/Kg	

Signed : A House Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

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Duleek

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Lab Report Ref. No. 1438/009/03 Customer **Nikita Coulter** Date of Receipt 19/03/2014 The Recycling Village Ltd. Sampled On 18/03/2014 **Date Testing Commenced Duleek Business Park** 19/03/2014

> Received or Collected **Delivered by Customer**

Co. Meath **Condition on Receipt** Acceptable Date of Report 11/04/2014 BH1 4.0m

Sample Type Soil

Ref 2

Customer PO

Customer Ref

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique Drying @ 104 C GCMS GCMS GCMS GCMS ICPMS ICP-OES ICPMS ICP-OES ICPMS ICP-OES ICP-OES ICP-OES ICP-OES ICPMS ICP-OES ICP-O	ی∨Result	Units	Acc.
% Dry Matter	302	Drying @ 104 C	90.78	%	
Acenaphthene (Soil)	200	GCMS	<0.05	mg/Kg	
Acenaphthylene (Soil)	200	GCMS	<0.05	mg/Kg	
Anthracene (Soil)	200	GCMS GCF AT	<0.05	mg/Kg	
Antimony (Leachate)	128	ICPMS JUTP QUITE	7.241	ug/Kg	
Antimony Solid (OES)	224	ICP-OES	630.34	ug/Kg	
Arsenic (Leachate)	128	ICPMS Dect wife	62.17	ug/Kg	
Arsenic Solid (OES)	224	ICP-OES THE THE	5041.86	ug/Kg	
Barium (Leachate)	128	ICPMS FORTH	913.8	ug/Kg	
Barium Solid (OES)	224	ICP-OES	47566.6	ug/Kg	
Benzene (Soil)	198	GC-FID	<0.5	mg/Kg	
Benzo(a)anthracene (Soil)	200	GCMS of S	< 0.05	mg/Kg	
Benzo(a)pyrene (Soil)	200	GCMS	< 0.05	mg/Kg	
Benzo(b)fluoranthene (Soil)	200	GCMS	< 0.05	mg/Kg	
Benzo(ghi)perylene (Soil)	200	GCMS	< 0.05	mg/Kg	
Benzo(k)fluoranthene (Soil)	200	GCMS	< 0.05	mg/Kg	
BTEX (soil)	198	GC-FID	<0.5	mg/Kg	
Cadmium (Leachate)	128	ICPMS	0.236	ug/Kg	
Cadmium Solid (OES)	224	ICP-OES	164.665	ug/Kg	
Chloride (Leachate WAC)	190	IC	10.52	mg/Kg	
Chloride (Solid)	100	Colorimetry	7.77	mg/Kg	
Chromium (Leachate)	128	ICPMS	329.4	ug/Kg	
Chromium Solid (OES)	224	ICP-OES	13644.8	ug/Kg	
Chrysene (Soil)	200	GCMS	< 0.05	mg/Kg	

Signed: A Hovernoon Aoife Harmon - Technical Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

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Customer Nikita Coulter Lab Report Ref. No. 1438/009/03

The Recycling Village Ltd. Date of Receipt 19/03/2014

Unit 21 Sampled On 18/03/2014

 Duleek Business Park
 Date Testing Commenced
 19/03/2014

 Duleek
 Received or Collected
 Delivered by Customer

Co. Meath Condition on Receipt Acceptable

Date of Report 11/04/2014

Sample Type Soil

Ref 2

Customer PO

Customer Ref

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique ICPMS ICP-OES GCMS GCMS TOC Analyser GC-FID GCMS GCMS IC Colorimetry GCMS ICPMS of the property of the pr	ی∨Result	Units	Acc.
Copper (Leachate)	128	ICPMS	122.5	ug/Kg	
Copper Solid (OES)	224	ICP-OES	19565.9	ug/Kg	
Coronene (Soil)	200	GCMS OF OF	< 0.05	mg/Kg	
Dibenzo(ah)anthracene (Soil)	200	GCMS Set Ato	<0.05	mg/Kg	
Dissolved Organic Carbon (Leachate	316	TOC Analyser	80.9	mg/Kg	
Ethylbenzene (Soil)	198	GC-FID GOT A TEET	<0.5	mg/Kg	
Fluoranthene (Soil)	200	GCMS ged with	< 0.05	mg/Kg	
Fluorene (Soil)	200	GCMS in the	< 0.05	mg/Kg	
Fluoride (Leachate WAC)	190	IC FORMITE	4.60	mg/Kg	
Fluoride (Solid)	115	Colorimetry &	2.29	mg/Kg	
Indeno(1,2,3-cd)pyrene (Soil)	200	GCMS CONTRACTOR	<0.05	mg/Kg	
Lead (Leachate)	128	ICPMS of	33.34	ug/Kg	
Lead Solid (OES)	224	ICP-OES	8198.09	ug/Kg	
m-& p-Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
Mercury (Leachate)	128	ICPMS	<0.2	ug/Kg	
Mercury (Solid)	178	ICPMS	32.91	ug/Kg	
Mineral Oil (soil)	327	GC-FID	<2.5	mg/Kg	
Molybdenum (Leachate)	128	ICPMS	12.11	ug/Kg	
Molybdenum Solid (OES)	228	ICP-OES	563.765	ug/Kg	
Naphthalene (Soil)	200	GCMS	<0.05	mg/Kg	
Nickel (Leachate)	128	ICPMS	164.4	ug/Kg	
Nickel Solid (OES)	177	ICP-OES	21835	ug/Kg	
o-Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
PAH soil (Sum of 17)	200	GCMS	< 0.05	mg/Kg	

Signed : A Horenson Aoife Harmon - Technical Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

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Results contained in this report relate only to the samples tested

(P): Presumptive Results

**The analytical result for this parameter may not be reflective of the concentration present at the time of sampling. The maximum recommended preservation time for this parameter has been exceeded.



BH1 4.0m

A copy of this certificate is available on www.fitzsci.ie

Unit 35,

Boyne Business Park,

Drogheda, Co. Louth Ireland

Tel: +353 41 9845440 Fax: +353 41 9846171 Web: www.fitzsci.ie email info@fitzsci.ie

Customer Nikita Coulter Lab Report Ref. No. 1438/009/03

The Recycling Village Ltd. Date of Receipt 19/03/2014

Unit 21 Sampled On 18/03/2014

Duleek Business Park

Date Testing Commenced

19/03/2014

Duleek

Received or Collected

Delivered by Customer

Co. Meath Condition on Receipt Acceptable

Date of Report 11/04/2014

Sample Type Soil

Ref 2

Customer PO

Customer Ref

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique GCMS GCMS Colorimetry GCMS ICPMS ICP-OES IC Colorimetry TOC Analyses of High the treatment of t	یResult	Units	Acc.
PCB Total of 7 Congeners	167	GCMS	<0.005	mg/Kg	
Phenanthrene (Soil)	200	GCMS	<0.05	mg/Kg	
Phenol Index (Leachate)	128	Colorimetry	0.02	mg/Kg	
Pyrene (Soil)	200	GCMS SEE S	<0.05	mg/Kg	
Selenium (Leachate)	128	ICPMS aut Pluite	52.7	ug/Kg	
Selenium Solid (OES)	224	ICP-OES	2877.3	ug/Kg	
Sulphate (Leachate WAC)	190	IC nection the	39.08	mg/Kg	
Sulphate (Solid)	119	Colorimetry	3.29	mg/Kg as SO4	
TOC (Soil)	315	TOC Analyse (Street	<1.0	%	
Total Dissolved Solids (Leachate)	128		2960	mg/Kg	
Total Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
Zinc (Leachate)	128	GC-FID ICPMS of Services	258.6	ug/Kg	
Zinc Solid (OES)	224	ICP-OES	32737.9	ug/Kg	

Signed : A House Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

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(P): Presumptive Results

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Co. Meath

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Boyne Business Park,

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Customer Nikita Coulter Lab Report Ref. No. 1438/009/01
The Recycling Village Ltd. Date of Receipt 19/03/2014
Unit 21 Sampled On 18/03/2014
Dulock Business Park Date Testing Commenced 19/03/2014

Duleek Business Park

Date Testing Commenced

19/03/2014

Duleek

Received or Collected

Delivered by Customer

Condition on Receipt Acceptable

Date of Report 11/04/2014

Sample Type Soil

Customer Ref

Customer PO

Ref 2

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique Drying @ 104 C GCMS GCMS GCMS GCMS ICPMS ICP-OES ICPMS ICP-OES ICPMS ICP-OES ICPS ICP-OES ICPS ICPOES ICPMS ICP-OES ICPOES ICPO	یږ∙Result	Units	Acc.
% Dry Matter	302	Drying @ 104 C	77.97	%	
Acenaphthene (Soil)	200	GCMS	<0.05	mg/Kg	
Acenaphthylene (Soil)	200	GCMS	<0.05	mg/Kg	
Anthracene (Soil)	200	GCMS GC A	<0.05	mg/Kg	
Antimony (Leachate)	128	ICPMS THE CHILLE	26.17	ug/Kg	
Antimony Solid (OES)	224	ICP-OES COLUMN	1130.27	ug/Kg	
Arsenic (Leachate)	128	ICPMS Dect wife	37.06	ug/Kg	
Arsenic Solid (OES)	224	ICP-OES THE THE	3741.7	ug/Kg	
Barium (Leachate)	128	ICPMS FOR THE	119.8	ug/Kg	
Barium Solid (OES)	224	ICP-OES	49203.6	ug/Kg	
Benzene (Soil)	198	GC-FID	<0.5	mg/Kg	
Benzo(a)anthracene (Soil)	200	GCMS of S	<0.05	mg/Kg	
Benzo(a)pyrene (Soil)	200	GCMS	<0.05	mg/Kg	
Benzo(b)fluoranthene (Soil)	200	GCMS	<0.05	mg/Kg	
Benzo(ghi)perylene (Soil)	200	GCMS	<0.05	mg/Kg	
Benzo(k)fluoranthene (Soil)	200	GCMS	<0.05	mg/Kg	
BTEX (soil)	198	GC-FID	<0.5	mg/Kg	
Cadmium (Leachate)	128	ICPMS	0.915	ug/Kg	
Cadmium Solid (OES)	224	ICP-OES	324.66	ug/Kg	
Chloride (Leachate WAC)	190	IC	20.82	mg/Kg	
Chloride (Solid)	100	Colorimetry	11.79	mg/Kg	
Chromium (Leachate)	128	ICPMS	19.72	ug/Kg	
Chromium Solid (OES)	224	ICP-OES	8752.76	ug/Kg	
Chrysene (Soil)	200	GCMS	< 0.05	mg/Kg	

Signed : A However Aoife Harmon - Technical Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

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email info@fitzsci.

Customer Nikita Coulter Lab Report Ref. No. 1438/009/01
The Recycling Village Ltd. Date of Receipt 19/03/2014
Unit 21 Sampled On 18/03/2014

Duleek Business Park

Date Testing Commenced

19/03/2014

Duleek

Received or Collected

Delivered by Customer

Co. Meath Condition on Receipt Acceptable

Date of Report 11/04/2014

Customer Ref BH1 0m Sample Type Soil

Ref 2

Customer PO

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique ICPMS ICP-OES GCMS GCMS TOC Analyser GC-FID GCMS GCMS IC Colorimetry GCMS ICPMS of the contribution of th	_{یe} ⋅Result	Units	Acc.
Copper (Leachate)	128	ICPMS	365.2	ug/Kg	
Copper Solid (OES)	224	ICP-OES	17421.1	ug/Kg	
Coronene (Soil)	200	GCMS Only	< 0.05	mg/Kg	
Dibenzo(ah)anthracene (Soil)	200	GCMS SE STO	< 0.05	mg/Kg	
Dissolved Organic Carbon (Leachate	316	TOC Analyser	767.7	mg/Kg	
Ethylbenzene (Soil)	198	GC-FID GOT PLACE	<0.5	mg/Kg	
Fluoranthene (Soil)	200	GCMS Dect wife	< 0.05	mg/Kg	
Fluorene (Soil)	200	GCMS : ITS THE	< 0.05	mg/Kg	
Fluoride (Leachate WAC)	190	IC FORDITE	4.16	mg/Kg	
Fluoride (Solid)	115	Colorimetry &	2.10	mg/Kg	
Indeno(1,2,3-cd)pyrene (Soil)	200	GCMS CONTROL	< 0.05	mg/Kg	
Lead (Leachate)	128	ICPMS of the second sec	<0.38	ug/Kg	
Lead Solid (OES)	224	ICP-OES	14090.4	ug/Kg	
m-& p-Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
Mercury (Leachate)	128	ICPMS	1.273	ug/Kg	
Mercury (Solid)	178	ICPMS	81.59	ug/Kg	
Mineral Oil (soil)	327	GC-FID	<2.5	mg/Kg	
Molybdenum (Leachate)	128	ICPMS	15.67	ug/Kg	
Molybdenum Solid (OES)	228	ICP-OES	982.517	ug/Kg	
Naphthalene (Soil)	200	GCMS	< 0.05	mg/Kg	
Nickel (Leachate)	128	ICPMS	78.34	ug/Kg	
Nickel Solid (OES)	177	ICP-OES	17372.5	ug/Kg	
o-Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
PAH soil (Sum of 17)	200	GCMS	< 0.05	mg/Kg	

Signed : A Horizon

Aoife Harmon - Technical Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

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Unit 35,

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Tel: +353 41 9845440 Fax: +353 41 9846171 Web: www.fitzsci.ie email info@fitzsci.ie

Customer Nikita Coulter Lab Report Ref. No. 1438/009/01
The Recycling Village Ltd. Date of Receipt 19/03/2014
Unit 21 Sampled On 18/03/2014

Duleek Business Park

Date Testing Commenced

19/03/2014

Duleek

Received or Collected

Delivered by Customer

Co. Meath Condition on Receipt Acceptable

Date of Report 11/04/2014

Sample Type Soil

Ref 2

Customer PO

Customer Ref

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique GCMS GCMS Colorimetry GCMS ICPMS ICP-OES IC Colorimetry TOC Analyses of byfirth the proportion of the property Evaporation of Grayimetry	یResult	Units	Acc.
PCB Total of 7 Congeners	167	GCMS	<0.005	mg/Kg	
Phenanthrene (Soil)	200	GCMS	<0.05	mg/Kg	
Phenol Index (Leachate)	128	Colorimetry	0.19	mg/Kg	
Pyrene (Soil)	200	GCMS &	<0.05	mg/Kg	
Selenium (Leachate)	128	ICPMS THE CHIEF	71.97	ug/Kg	
Selenium Solid (OES)	224	ICP-OES CONTRACTOR	2054.42	ug/Kg	
Sulphate (Leachate WAC)	190	IC Sectioning	82.48	mg/Kg	
Sulphate (Solid)	119	Colorimetry	<1.39	mg/Kg as SO4	
TOC (Soil)	315	TOC Analyser	2.62	%	
Total Dissolved Solids (Leachate)	128		2970	mg/Kg	
Total Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
Zinc (Leachate)	128	GC-FID SEER CO	40.3	ug/Kg	
Zinc Solid (OES)	224	ICP-OES	42300.3	ug/Kg	

Signed : A House Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

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 Customer
 Nikita Coulter
 Lab Report Ref. No.
 1438/009/02

 The Recycling Village Ltd.
 Date of Receipt
 19/03/2014

 Unit 21
 Sampled On
 18/03/2014

Duleek Business Park

Date Testing Commenced

19/03/2014

Duleek

Received or Collected

Delivered by Customer

Co. Meath Condition on Receipt Acceptable

Date of Report 11/04/2014

Customer Ref BH1 2.0m Sample Type Soil

Ref 2

Customer PO

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique ICPMS ICP-OES GCMS GCMS TOC Analyser GC-FID GCMS GCMS IC Colorimetry GCMS ICPMS ICPMS ICPMS ICPOES ICPOES GC FID	یکResult	Units	Acc.
Copper (Leachate)	128	ICPMS	75.31	ug/Kg	
Copper Solid (OES)	224	ICP-OES	15916.8	ug/Kg	
Coronene (Soil)	200	GCMS Only	<0.05	mg/Kg	
Dibenzo(ah)anthracene (Soil)	200	GCMS SEE ALTO	< 0.05	mg/Kg	
Dissolved Organic Carbon (Leachate	316	TOC Analyser	113.4	mg/Kg	
Ethylbenzene (Soil)	198	GC-FID GT PLEET	<0.5	mg/Kg	
Fluoranthene (Soil)	200	GCMS Dect wife	< 0.05	mg/Kg	
Fluorene (Soil)	200	GCMS TIPS THE	<0.05	mg/Kg	
Fluoride (Leachate WAC)	190	IC FORDITE	4.90	mg/Kg	
Fluoride (Solid)	115	Colorimetry &	2.05	mg/Kg	
Indeno(1,2,3-cd)pyrene (Soil)	200	GCMS CONTROL	< 0.05	mg/Kg	
Lead (Leachate)	128	ICPMS of the second sec	23.54	ug/Kg	
Lead Solid (OES)	224	ICP-OES	7859.38	ug/Kg	
m-& p-Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
Mercury (Leachate)	128	ICPMS	0.498	ug/Kg	
Mercury (Solid)	178	ICPMS	31.03	ug/Kg	
Mineral Oil (soil)	327	GC-FID	<2.5	mg/Kg	
Molybdenum (Leachate)	128	ICPMS	9.666	ug/Kg	
Molybdenum Solid (OES)	228	ICP-OES	267.593	ug/Kg	
Naphthalene (Soil)	200	GCMS	< 0.05	mg/Kg	
Nickel (Leachate)	128	ICPMS	118.2	ug/Kg	
Nickel Solid (OES)	177	ICP-OES	23265.4	ug/Kg	
o-Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
PAH soil (Sum of 17)	200	GCMS	<0.05	mg/Kg	

Signed : A Horenson Aoife Harmon - Technical Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

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Customer Nikita Coulter Lab Report Ref. No. 1438/009/02
The Recycling Village Ltd. Date of Receipt 19/03/2014
Unit 21 Sampled On 18/03/2014
Duleek Business Park Date Testing Commenced 19/03/2014

Duleek Received or Collected Delivered by Customer

Co. Meath Condition on Receipt Acceptable

Date of Report 11/04/2014

Customer Ref BH1 2.0m Sample Type Soil

Ref 2

Customer PO

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique GCMS GCMS Colorimetry GCMS ICPMS ICP-OES IC Colorimetry TOC Analyses of philipter to the proporation of Grayimetry Evaporation Grayimetry	یResult	Units	Acc.
PCB Total of 7 Congeners	167	GCMS	<0.005	mg/Kg	
Phenanthrene (Soil)	200	GCMS	<0.05	mg/Kg	
Phenol Index (Leachate)	128	Colorimetry	0.02	mg/Kg	
Pyrene (Soil)	200	GCMS SEE SEE SEE	<0.05	mg/Kg	
Selenium (Leachate)	128	ICPMS DIFP DIFFE	83.53	ug/Kg	
Selenium Solid (OES)	224	ICP-OES	3064.55	ug/Kg	
Sulphate (Leachate WAC)	190	IC geotraphic	52.44	mg/Kg	
Sulphate (Solid)	119	Colorimetry	21.06	mg/Kg as SO4	
TOC (Soil)	315	TOC Analyser	1.534	%	
Total Dissolved Solids (Leachate)	128		3070	mg/Kg	
Total Xylene (Soil)	198	GC-FID	<0.5	mg/Kg	
Zinc (Leachate)	128	GC-FID ICPMS of S	195.1	ug/Kg	
Zinc Solid (OES)	224	ICP-OES	36912.5	ug/Kg	

Signed : A House Supervisor

Acc.: Accredited Parameters by ISO 17025:2005

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