

Test Report:

Particle Size Distribution Test **BS 1377 Part 2:1990.**

Wet Sieve, Clause 9.2

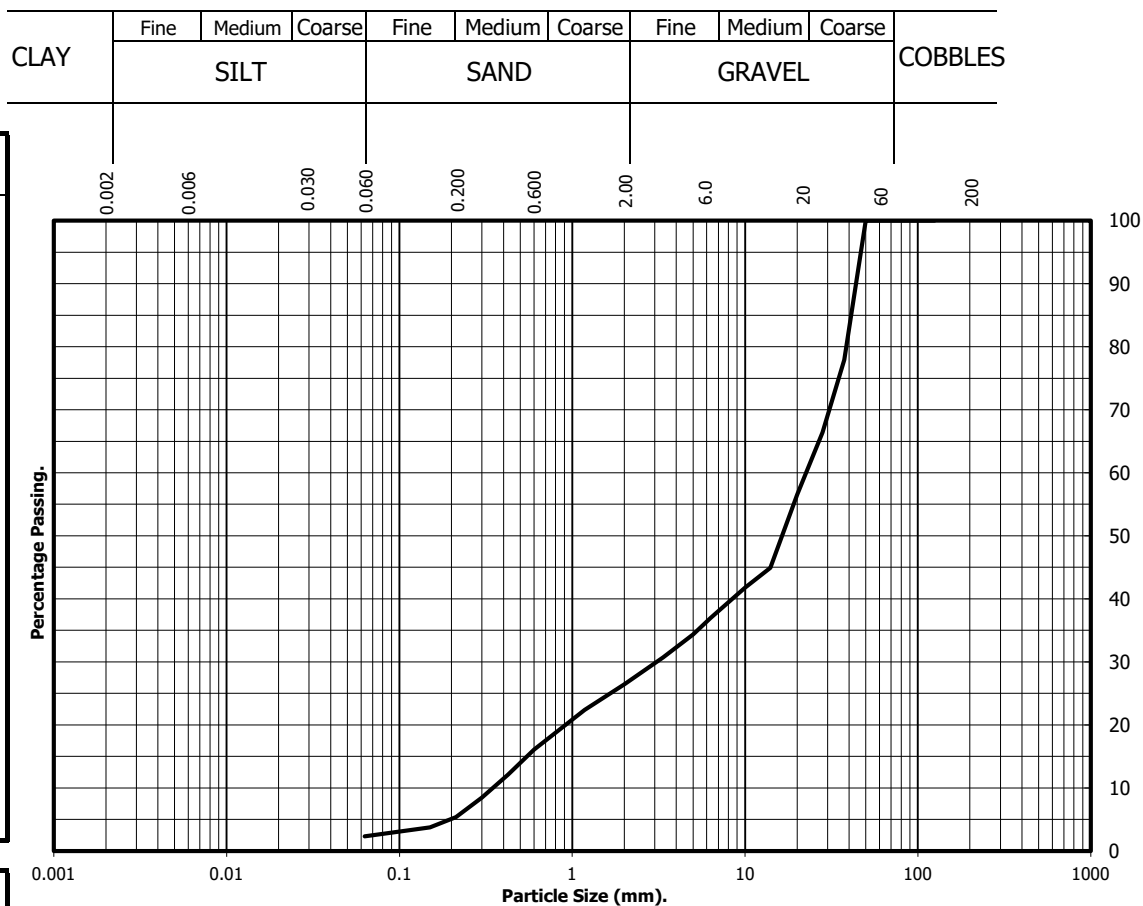
Client ref: **G763**
 Contract Number: **29662-**
 Hole Number: **QTP16**

Sample Number: **6**
 Depth from (m): **3.00**
 Depth to (m): **3.50**
 Sample Type: **B**

Location: **Burrows Yard**
 Description: **Brown silty clayey sandy fine to coarse GRAVEL.**

BS Test Sieve	% Passing
125	100
90	100
75	100
63	100
50	100
37.5	78
28	66
20	57
14	45
10	42
6.3	37
5.0	34
3.35	31
2.00	26
1.18	22
0.60	16
0.425	12
0.300	8
0.212	5
0.150	4
0.063	2

Particle Diameter	% Passing
0.02	#
0.006	#
0.002	#



	Silt and Clay	Sand	Gravel	Cobbles	Soil Fraction
	2	24	74	0	Total Percentage

Remarks:

#- not determined

For and behalf of GEO Site & Testing Services Ltd

Authorised By:
 Emma Sharp (Office Manager)

Date: **10.2.16**



Test Report:

Particle Size Distribution Test **BS 1377 Part 2:1990.**

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

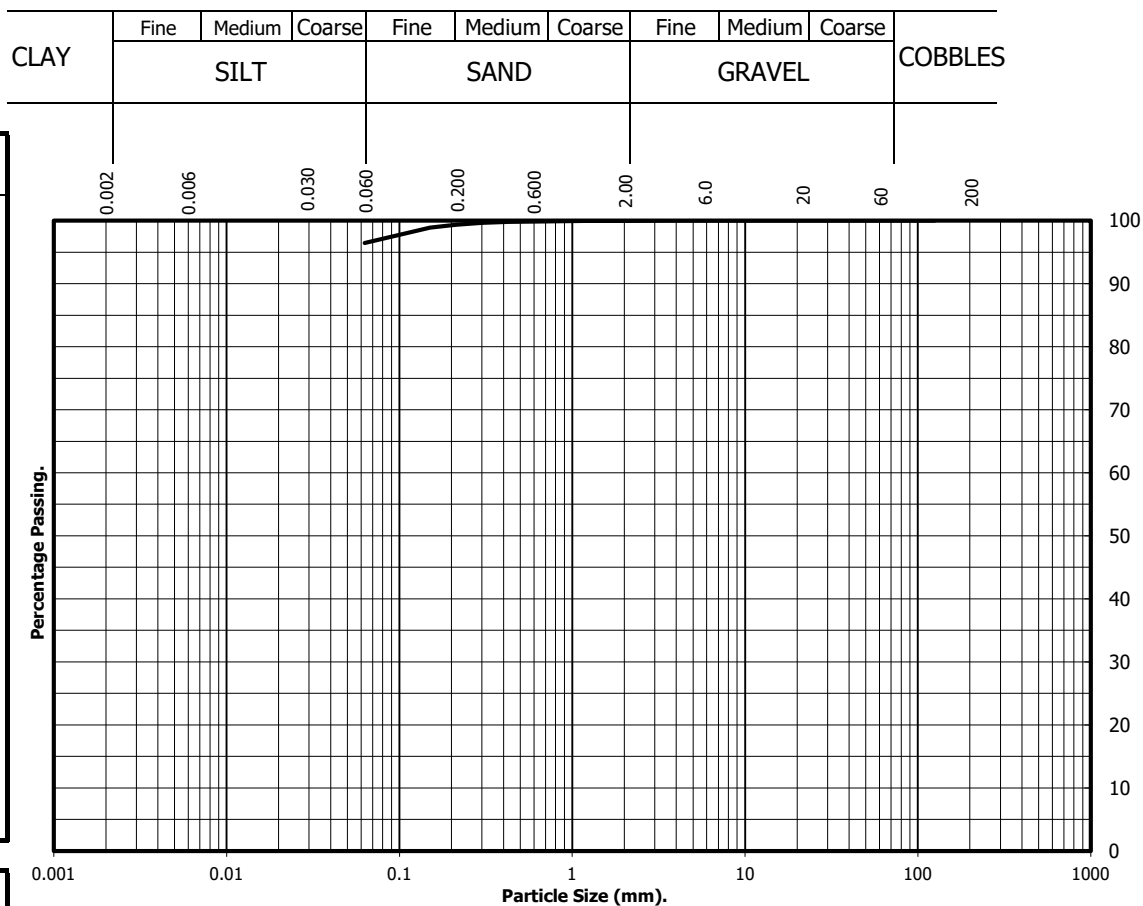
Client ref: **G763**
 Contract Number: **29662-**
 Hole Number: **QTP17**

Sample Number: **7**
 Depth from (m): **2.50**
 Depth to (m): **3.00**
 Sample Type: **B**

Location: **Burrows Yard**
 Description: **Brown sandy fine to medium silty CLAY.**

BS Test Sieve	% Passing
125	100
90	100
75	100
63	100
50	100
37.5	100
28	100
20	100
14	100
10	100
6.3	100
5.0	100
3.35	100
2.00	100
1.18	100
0.60	100
0.425	100
0.300	100
0.212	99
0.150	99
0.063	96

Particle Diameter	% Passing
0.02	84
0.006	61
0.002	58



Clay	Silt	Sand	Gravel	Cobbles	Soil Fraction
58	38	4	0	0	Total Percentage

Remarks:

CI 9.4.8 - Sample has not been pretreated

For and behalf of GEO Site & Testing Services Ltd

Authorised By:
 Emma Sharp (Office Manager)

Date: **10.2.16**



Determination of the Liquid Limit (One Point Cone Penetrometer Method), Plastic Limit, Plasticity Index
BS 1377: Part 2: 1990: Clause 4.4, 5.3, 5.4

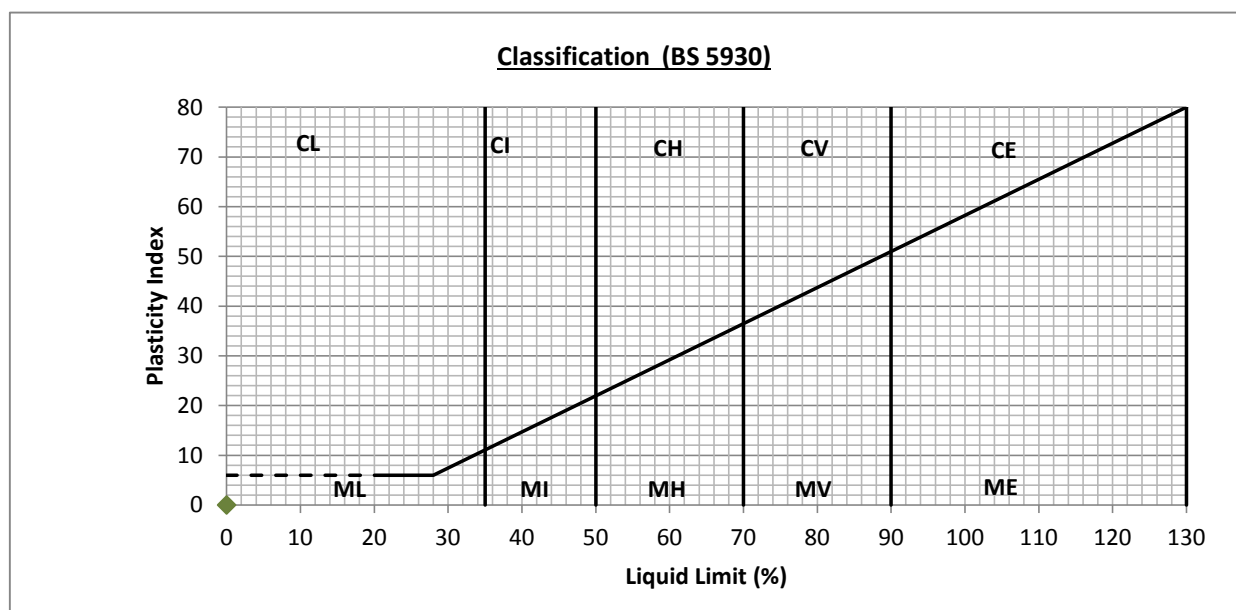
Client Name:	Neath Port Talbot County Borough Council		
Client Address:	Civic Centre, Port Talbot SA13 1PJ		
Contract Name:	Burrows Yard	Contract No.:	G762

Sample Location:	QBH01 B15 5.5 - 6m		
Material Description:	Brown sandy GRAVEL		
Source:	In-Situ	Date Sampled:	Unknown
Certificate Received:	Yes	Date Received:	19.1.16
Sample Type:	Bulk	Date Start Test:	19.1.16
Sampled By:	Quantum	Date End Test:	21.1.16

Test Results

Method of Preparation:	BS1377 Part 1: 1990	Sample Preparation:	Wet Seived
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% Retained 425µm Sieve	92	Liquid Limit	
Moisture Content (%)	6.3	Plastic Limit	
		Plasticity Index	



Remarks: Opinions & Interpretations expressed herein are outside the scope of UKAS Accreditation
Not UKAS accredited for Classification **Non Plastic**

Signed: *G. Morris*
Position: Laboratory Manager
Dated: 22 January 2016

Determination of the Liquid Limit (One Point Cone Penetrometer Method), Plastic Limit, Plasticity Index
BS 1377: Part 2: 1990: Clause 4.4, 5.3, 5.4

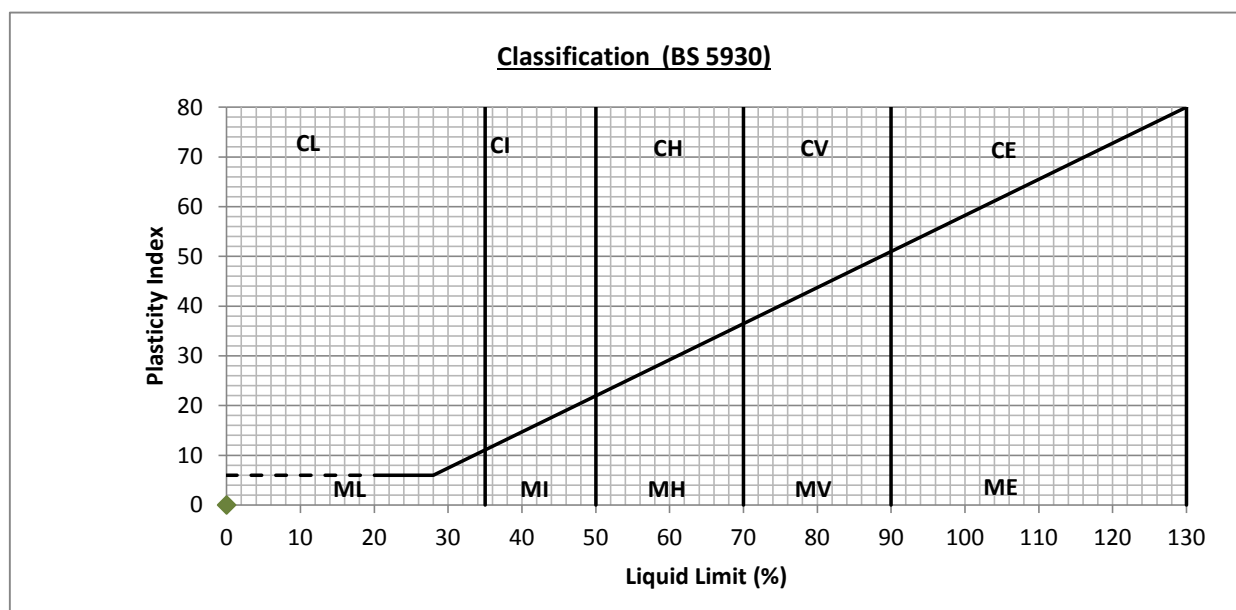
Client Name:	Neath Port Talbot County Borough Council		
Client Address:	Civic Centre, Port Talbot SA13 1PJ		
Contract Name:	Burrows Yard	Contract No.:	G762

Sample Location:	QBH06 B15 5 - 5.5m		
Material Description:	Brown sandy GRAVEL		
Source:	In-Situ	Date Sampled:	Unknown
Certificate Received:	Yes	Date Received:	19.1.16
Sample Type:	Bulk	Date Start Test:	19.1.16
Sampled By:	Quantum	Date End Test:	21.1.16

Test Results

Method of Preparation:	BS1377 Part 1: 1990	Sample Preparation:	Wet Seived
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% Retained 425µm Sieve	92	Liquid Limit	
Moisture Content (%)	5.6	Plastic Limit	
		Plasticity Index	



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Not UKAS accredited for Classification **Non Plastic**

Signed: *G. Morris*
Position: Laboratory Manager
Dated: 22 January 2016

Particle Size Distribution & Moisture Content

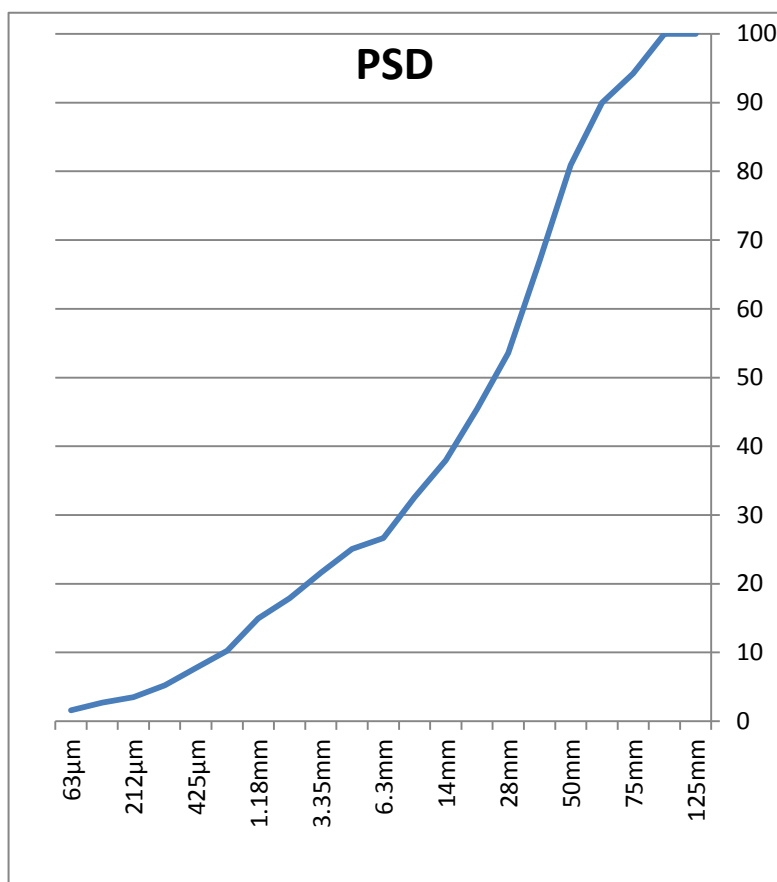
BS1377: Pt2: 1990 Clause 9 & Clause 3

8295

LABORATORY REPORT G762/QBH01
Date: 22nd Jan 16

Project	G762 - Burrows Yard, Port Talbot		
Material	Brown slightly silty sandy GRAVEL with cobbles		
Location	B15	Depth (m)	5.5 - 6
Contractor	QGL	Sample Certificate	Yes
Source	Insitu	Ticket Number	N/A
Date Sampled	Unknown	Date Received	19.1.16
Date Test Start	19.1.16	Date Tested To	21.1.16
Sampled By	Quantum	Sample Type	Bulk

Sieve size	% passing	Specification
125mm	100	
90mm	100	
75mm	94	
63mm	90	
50mm	81	
37.5mm	67	
28mm	54	
20mm	45	
14mm	38	
10mm	33	
6.3mm	27	
5mm	25	
3.35mm	22	
2mm	18	
1.18mm	15	
600µm	10	
425µm	8	
300µm	5	
212µm	4	
150µm	3	
63µm	2	
Particle Diameter	Percentage Passing	
0.020		
0.006		
0.002		



Moisture Content %	Uniformity Coefficient	Lower Limit
6.3		

Soil Fraction	Cobbles	Gravel	Sand	Silt/Clay	-
Total Percentage	10	72	16	2	-

Remarks : Opinions and Interpretations expressed herein are outside the scope of UKAS accreditation

* Denotes outside range of specification

Client Name: Mrs Leah Clark
Neath Port Talbot CBC
Civiv Centre, Port Talbot
SA13 1PJ

Signed: *G. Morris*
G. Morris
Laboratory Manager

Particle Size Distribution & Moisture Content

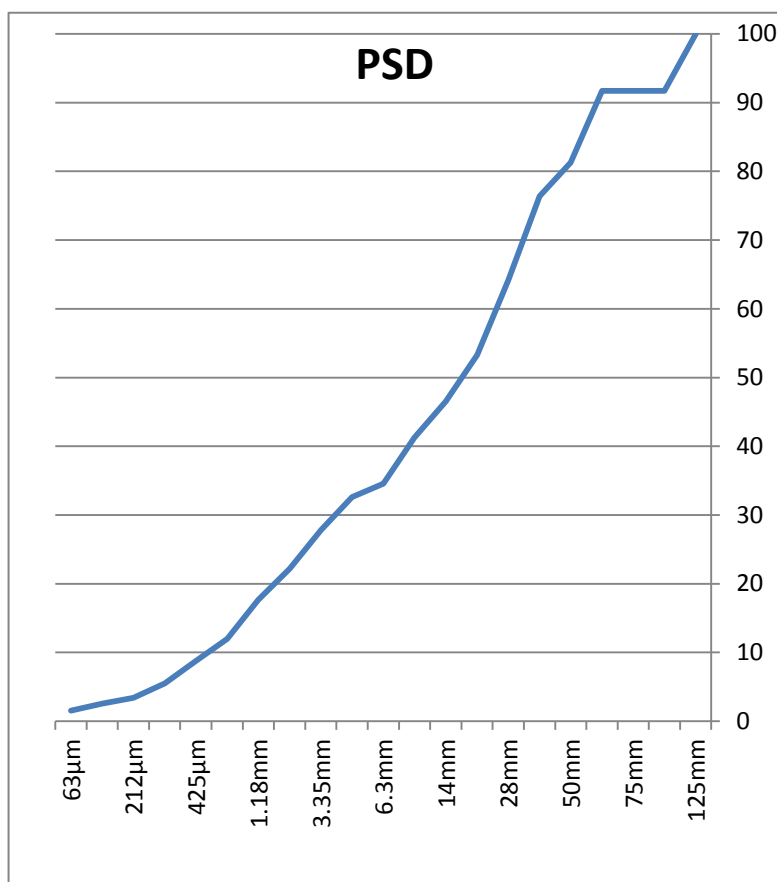
BS1377: Pt2: 1990 Clause 9 & Clause 3

8295

LABORATORY REPORT G762/QBH02
Date: 22nd Jan 16

Project	G762 - Burrows Yard, Port Talbot		
Material	Brown slightly silty very sandy GRAVEL with cobbles		
Location	B14	Depth (m)	5.5
Contractor	QGL	Sample Certificate	Yes
Source	Insitu	Ticket Number	N/A
Date Sampled	Unknown	Date Received	19.1.16
Date Test Start	19.1.16	Date Tested To	21.1.16
Sampled By	Quantum	Sample Type	Bulk

Sieve size	% passing	Specification
125mm	100	
90mm	92	
75mm	92	
63mm	92	
50mm	81	
37.5mm	76	
28mm	64	
20mm	53	
14mm	47	
10mm	41	
6.3mm	35	
5mm	33	
3.35mm	28	
2mm	22	
1.18mm	18	
600µm	12	
425µm	9	
300µm	6	
212µm	3	
150µm	3	
63µm	2	
Particle Diameter	Percentage Passing	
0.020		
0.006		
0.002		



Moisture Content %	Uniformity Coefficient	Lower Limit
5.6		

Soil Fraction	Cobbles	Gravel	Sand	Silt/Clay	-
Total Percentage	8	70	21	2	-

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Signed: *G. Morris*
G. Morris
Laboratory Manager

Particle Size Distribution & Moisture Content

BS1377: Pt2: 1990 Clause 9 & Clause 3

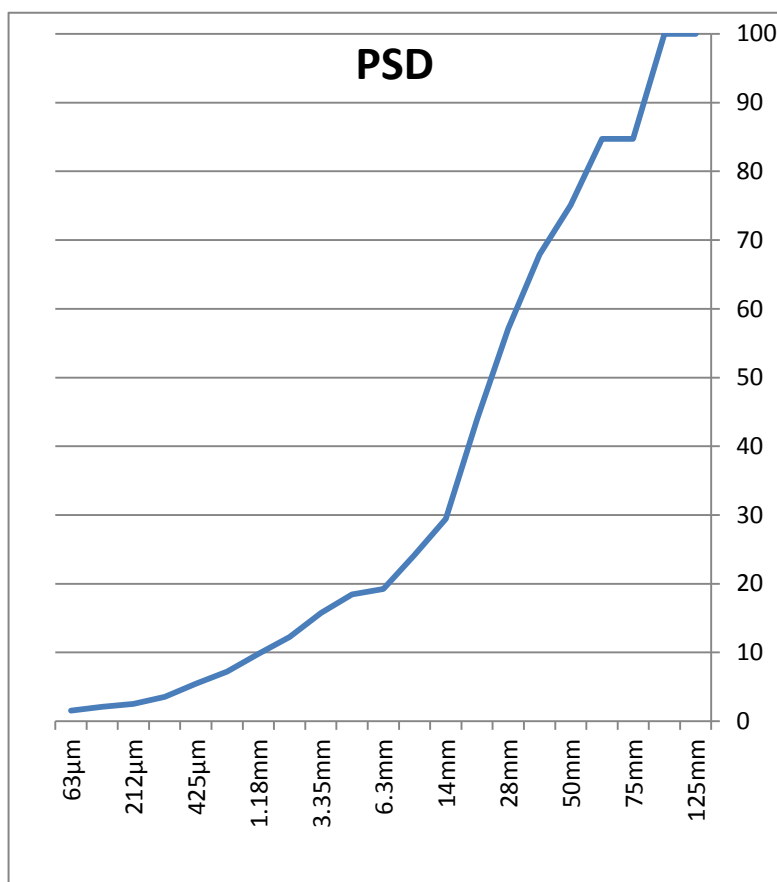


8295

LABORATORY REPORT G762/QBH03
Date: 22nd Jan 16

Project	G762 - Burrows Yard, Port Talbot		
Material	Brown slightly silty sandy GRAVEL with cobbles		
Location	B15	Depth (m)	6 - 6.5
Contractor	QGL	Sample Certificate	Yes
Source	Insitu	Ticket Number	N/A
Date Sampled	Unknown	Date Received	19.1.16
Date Test Start	19.1.16	Date Tested To	21.1.16
Sampled By	Quantum	Sample Type	Bulk

Sieve size	% passing	Specification
125mm	100	
90mm	100	
75mm	85	
63mm	85	
50mm	75	
37.5mm	68	
28mm	57	
20mm	44	
14mm	29	
10mm	24	
6.3mm	19	
5mm	18	
3.35mm	16	
2mm	12	
1.18mm	10	
600µm	7	
425µm	5	
300µm	4	
212µm	3	
150µm	2	
63µm	2	
Particle Diameter	Percentage Passing	
0.020		
0.006		
0.002		



Moisture Content %	Uniformity Coefficient	Lower Limit
6.2		

Soil Fraction	Cobbles	Gravel	Sand	Silt/Clay	-
Total Percentage	15	72	11	2	-

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SA13 1PJ

Signed: *G. Morris*
G. Morris
Laboratory Manager

Particle Size Distribution & Moisture Content

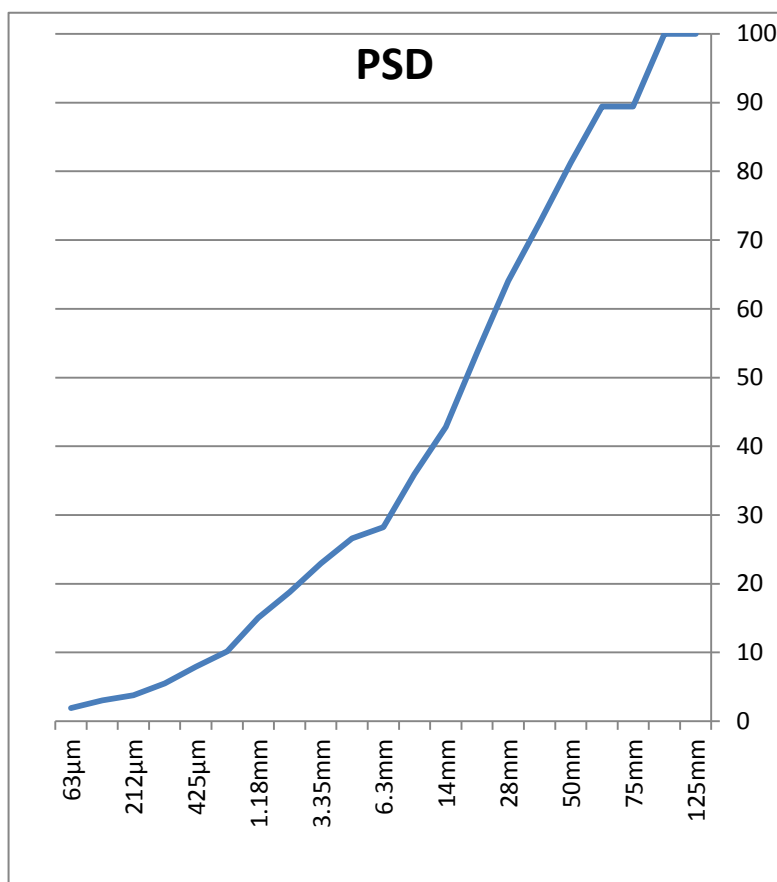
BS1377: Pt2: 1990 Clause 9 & Clause 3

8295

LABORATORY REPORT G762/QBH04
Date: 22nd Jan 16

Project	G762 - Burrows Yard, Port Talbot		
Material	Brown slightly silty sandy GRAVEL with cobbles		
Location	B13	Depth (m)	5.0 - 5.5
Contractor	QGL	Sample Certificate	Yes
Source	Insitu	Ticket Number	N/A
Date Sampled	Unknown	Date Received	19.1.16
Date Test Start	19.1.16	Date Tested To	21.1.16
Sampled By	Quantum	Sample Type	Bulk

Sieve size	% passing	Specification
125mm	100	
90mm	100	
75mm	89	
63mm	89	
50mm	81	
37.5mm	72	
28mm	64	
20mm	54	
14mm	43	
10mm	36	
6.3mm	28	
5mm	27	
3.35mm	23	
2mm	19	
1.18mm	15	
600µm	10	
425µm	8	
300µm	6	
212µm	4	
150µm	3	
63µm	2	
Particle Diameter	Percentage Passing	
0.020		
0.006		
0.002		



Moisture Content %	Uniformity Coefficient	Lower Limit
5.7		

Soil Fraction	Cobbles	Gravel	Sand	Silt/Clay	-
Total Percentage	11	71	17	2	-

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Civiv Centre, Port Talbot
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Signed: *G. Morris*
G. Morris
Laboratory Manager

Particle Size Distribution & Moisture Content

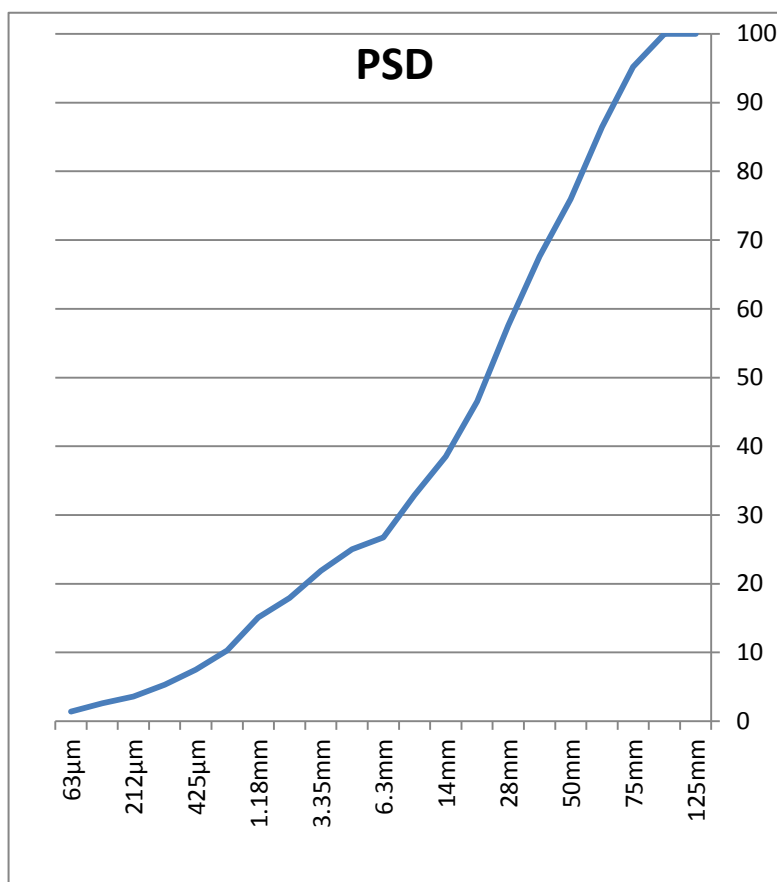
BS1377: Pt2: 1990 Clause 9 & Clause 3

8295

LABORATORY REPORT G762/QBH05
Date: 22nd Jan 16

Project	G762 - Burrows Yard, Port Talbot		
Material	Brown slightly silty sandy GRAVEL with cobbles		
Location	B15	Depth (m)	5.0 - 5.5
Contractor	QGL	Sample Certificate	Yes
Source	Insitu	Ticket Number	N/A
Date Sampled	Unknown	Date Received	19.1.16
Date Test Start	19.1.16	Date Tested To	21.1.16
Sampled By	Quantum	Sample Type	Bulk

Sieve size	% passing	Specification
125mm	100	
90mm	100	
75mm	95	
63mm	86	
50mm	76	
37.5mm	68	
28mm	58	
20mm	47	
14mm	39	
10mm	33	
6.3mm	27	
5mm	25	
3.35mm	22	
2mm	18	
1.18mm	15	
600µm	10	
425µm	7	
300µm	5	
212µm	4	
150µm	3	
63µm	1	
Particle Diameter	Percentage Passing	
0.020		
0.006		
0.002		



Moisture Content %	Uniformity Coefficient	Lower Limit
6.1		

Soil Fraction	Cobbles	Gravel	Sand	Silt/Clay	-
Total Percentage	14	68	17	1	-

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Civv Centre, Port Talbot
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Signed: *G. Morris*
G. Morris
Laboratory Manager

Particle Size Distribution & Moisture Content

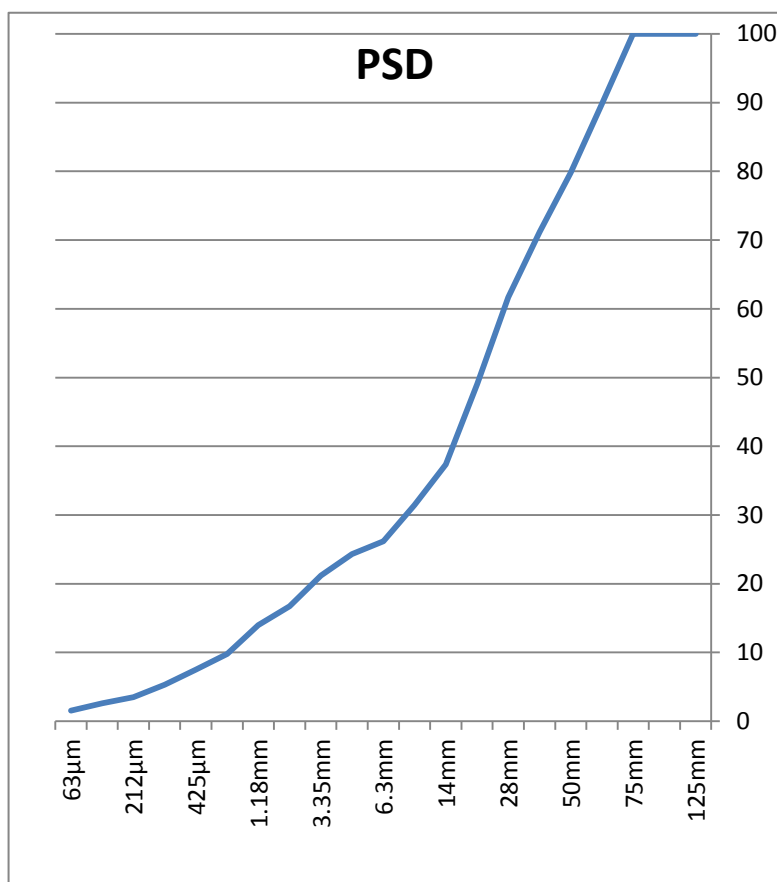
BS1377: Pt2: 1990 Clause 9 & Clause 3

8295

LABORATORY REPORT G762/QBH06
Date: 22nd Jan 16

Project	G762 - Burrows Yard, Port Talbot		
Material	Brown slightly silty sandy GRAVEL with cobbles		
Location	B15	Depth (m)	5.5 - 6
Contractor	QGL	Sample Certificate	Yes
Source	Insitu	Ticket Number	N/A
Date Sampled	Unknown	Date Received	19.1.16
Date Test Start	19.1.16	Date Tested To	21.1.16
Sampled By	Quantum	Sample Type	Bulk

Sieve size	% passing	Specification
125mm	100	
90mm	100	
75mm	100	
63mm	90	
50mm	80	
37.5mm	71	
28mm	62	
20mm	49	
14mm	37	
10mm	31	
6.3mm	26	
5mm	24	
3.35mm	21	
2mm	17	
1.18mm	14	
600µm	10	
425µm	8	
300µm	5	
212µm	3	
150µm	3	
63µm	2	
Particle Diameter	Percentage Passing	
0.020		
0.006		
0.002		



Moisture Content %	Uniformity Coefficient	Lower Limit
5.6		

Soil Fraction	Cobbles	Gravel	Sand	Silt/Clay	-
Total Percentage	10	73	15	2	-

Remarks : Opinions and Interpretations expressed herein are outside the scope of UKAS accreditation

* Denotes outside range of specification

Client Name: Mrs Leah Clark
Neath Port Talbot CBC
Civiv Centre, Port Talbot
SA13 1PJ

Signed: *G. Morris*
G. Morris
Laboratory Manager

APPENDIX IX – GEO-ENVIRONMENTAL LABORATORY TEST RESULTS

RISK TO HUMAN HEALTH ASSESSMENT: BACKGROUND AND GUIDANCE NOTES

The Department for Environment, Food and Rural Affairs (DEFRA) and the Environment Agency published a series of reports in 2002 that provide a scientifically based framework for the assessment of risks to human health from land contamination. By providing a consistent approach to risk assessment, the framework facilitates the rapid identification of sites that pose a significant risk to human health and help avoid blight on other sites. This framework does not consider risks to other receptors such as plants and animals, buildings and controlled waters.

The Soil Guideline Values (SGVs) are a tool that can be used to assess the risks posed to human health from exposure to soil contamination resulting from land use. They represent 'intervention values', which indicate to an assessor that soil concentrations above this level could pose an unacceptable risk to the health of site users and that further investigation and/or remediation is required. Soil Guideline Values combine both authoritative science and policy judgements.

Soil Guideline Values have been derived using the CLEA (Contaminated Land Exposure Assessment) model according to three typical land uses:

- Residential (with and without vegetable growing)
- Allotments
- Commercial / industrial

Where applied appropriately, exceeding a Soil Guideline Value suggests the need for either further investigation and/ or remediation. Soil Guideline Values can be used in connection with the formal requirements of Part IIA of the Environmental Protection Act 1990 ("the contaminated land regime"). However, they will also be relevant to many situations where the effect of land contamination on human health is an issue such as in planning applications when judging the need for action to ensure that a new use of land does not pose unacceptable risks to health.

The CLEA Soil Guideline Values (SGV) provide thresholds to undertake generic risk assessments of sites in respect of risks to human health. The issuing of

SGV's by DEFRA/ EA is an ongoing process, with the suite of analytes for which published results are available being updated at regular intervals. The list of published SGV's is not complete when compared to the list of potential contaminants as detailed in the earlier CLEA publication CLR8, from which the suggested suite of contaminants tested for is derived.

There have been several major changes in Contaminated Land non-statutory guidance in recent years, in particular relating to CLR documentation and their derivatives i.e. Soil Guideline Values and Toxicological Reports. In 2006, DEFRA commenced work on their 'Way Forward' exercise which aimed to redefine the way contaminated land is assessed with the aid of devising revamped technical guidance and soil guideline values. A working group of various environmental consultancies/ establishments/ stakeholders set about determining how the non-statutory guidance of CLEA 2002 may be amended to be increasingly user friendly for assessors of contaminated land and ultimately to help in defining whether land qualifies as contaminated land under Part IIA Environmental Protection Act 1990. July 2008 saw the findings of this exercise published. Firstly the document entitled '*Guidance on the Legal Definition of Contaminated Land*' was published followed closely by the publication of the fourteen measures derived to improve contaminated land non-statutory technical guidance i.e. CLR Publications.

In light of these improvements, the toxicology of various contaminants and therefore the generic soil guideline values, has been revised by EA and DEFRA. The revised paper published in August 2008 is entitled '*Human Health Toxicological Assessment of Contaminants in Soil*'. Based on the findings of this paper, EA are developing a new set of Toxicological Reports and subsequently a new, expanded set of SGV'. Upon publishing, these new SGV's may then be used in assessing risks to human health.

In parallel to much of these developments, in 2006/07 it was recognised that due to the limited number of revised SGVs being produced, the Chartered Institute of Environmental Health (CIEH) co-jointly with Land Quality Management (LQM) researched and developed an additional or alternate set of Soil Guideline Values known as Generic Assessment Criteria (GAC) values, producing GACs for 31 contaminants for Residential, Allotment and Commercial End Land Uses. These new values complete with details of how they were derived and including toxicological datasets was published in a single document 'The LQM/CIEH Generic Assessment Criteria for Human Health Risk Assessment'. Following publication of the 'Way Forward' document in late 2006, LQM/CIEH looked to review their GAC and add to them. By 2009 a 2nd Edition of 'The LQM/CIEH Generic Assessment Criteria for Human Health Risk Assessment' was published using updated methods and culminated in GAC for 82 substances.

In November 2014 the LQM/CIEH produced its third set of Generic Assessment Criteria for 89 potential contaminants as knowledge of toxicity and interaction continued to progress, thus replacing the 2nd Edition with the new publication entitled '*The LQM/CIEH S4ULs for Human Health Risk Assessment*'. This most recent set of GACs are referred to as 'S4ULs' – Suitable for Use Levels'

For the purposes of Quantum Geotechnical Ltd assessments, the most recent and applicable SGVs, GACs and SU4Ls are used based on site end use and development and overall suitability. These are all referenced within the text.

**Lara Weaver**

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WD18 8YS

t: 01923 225404

f: 01923 237404

e: reception@i2analytical.com

Analytical Report Number : 15-84901

Project / Site name:	Burrow's Yard	Samples received on:	15/12/2015
Your job number:	G762	Samples instructed on:	18/12/2015
Your order number:		Analysis completed by:	31/12/2015
Report Issue Number:	1	Report issued on:	31/12/2015
Samples Analysed:	1 leachate sample - 2 soil samples		

Signed:

Dr Irma Doyle
Assistant Quality Manager
For & on behalf of i2 Analytical Ltd.

Signed:

Emma Winter
Assistant Reporting Manager
For & on behalf of i2 Analytical Ltd.

Other office located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland

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

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

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

Analytical Report Number: 15-84901

Project / Site name: Burrow's Yard

Lab Sample Number	519701	519702			
Sample Reference	QBH01	QBH02			
Sample Number	3	2			
Depth (m)	1.00	0.60			
Date Sampled	03/12/2015	11/12/2015			
Time Taken	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	9.2	14
Total mass of sample received	kg	0.001	NONE	1.8	1.7

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Chrysotile- Insulation lagging; Amosite- Loose fibres	Chrysotile- Loose fibres			
Asbestos in Soil	Type	N/A	ISO 17025	Detected	Detected			

General Inorganics

pH	pH Units	N/A	MCERTS	9.9	7.9			
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1			
Water Soluble Sulphate (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.17	0.055			
Organic Matter	%	0.1	MCERTS	3.1	3.1			

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0			
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.29	0.25			
Acenaphthylene	mg/kg	0.1	MCERTS	< 0.10	0.65			
Acenaphthene	mg/kg	0.1	MCERTS	0.12	0.17			
Fluorene	mg/kg	0.1	MCERTS	< 0.10	0.55			
Phenanthrene	mg/kg	0.1	MCERTS	1.2	5.9			
Anthracene	mg/kg	0.1	MCERTS	0.18	1.1			
Fluoranthene	mg/kg	0.1	MCERTS	1.8	8.7			
Pyrene	mg/kg	0.1	MCERTS	1.3	6.4			
Benzo(a)anthracene	mg/kg	0.1	MCERTS	1.2	4.5			
Chrysene	mg/kg	0.05	MCERTS	1.5	5.0			
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	1.6	5.3			
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	0.58	1.6			
Benzo(a)pyrene	mg/kg	0.1	MCERTS	0.93	3.2			
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	0.52	1.8			
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	< 0.10	0.46			
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.68	2.1			

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	11.9	47.7			
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Analytical Report Number: 15-84901

Project / Site name: Burrow's Yard

Lab Sample Number	519701	519702			
Sample Reference	QBH01	QBH02			
Sample Number	3	2			
Depth (m)	1.00	0.60			
Date Sampled	03/12/2015	11/12/2015			
Time Taken	None Supplied	None Supplied			

Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	27	20			
Boron (water soluble)	mg/kg	0.2	MCERTS	1.6	1.2			
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.4	0.3			
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	19	25			
Copper (aqua regia extractable)	mg/kg	1	MCERTS	63	170			
Lead (aqua regia extractable)	mg/kg	1	MCERTS	56	250			
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	20	36			
Tin (aqua regia extractable)	mg/kg	1	MCERTS	68	300			
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	400	790			

Monoaromatics

Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0			
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0			
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0			
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0			
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0			
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0			

Petroleum Hydrocarbons

TPH C10 - C40	mg/kg	10	MCERTS	27	130			
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TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0			
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	2.4	< 2.0			
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0			
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0			
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10			

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0			
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	7.7			
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	11	34			
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	85			
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	21	130			

Chlorinated Solvents

Total Chlorinated Solvents	µg/kg	100	NONE	< 100	< 100			
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Analytical Report Number: 15-84901

Project / Site name: Burrow's Yard

Lab Sample Number	519701	519702			
Sample Reference	QBH01	QBH02			
Sample Number	3	2			
Depth (m)	1.00	0.60			
Date Sampled	03/12/2015	11/12/2015			
Time Taken	None Supplied	None Supplied			

Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
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VOCs

Chloromethane	µg/kg	1	ISO 17025	< 1.0	< 1.0			
Chloroethane	µg/kg	1	ISO 17025	< 1.0	< 1.0			
Bromomethane	µg/kg	1	ISO 17025	< 1.0	< 1.0			
Vinyl Chloride	µg/kg	1	ISO 17025	< 1.0	< 1.0			
Trichlorofluoromethane	µg/kg	1	ISO 17025	< 1.0	< 1.0			
1,1-Dichloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0			
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	< 1.0			
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0			
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0			
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0			
2,2-Dichloropropane	µg/kg	1	NONE	< 1.0	< 1.0			
Trichloromethane	µg/kg	1	MCERTS	< 1.0	< 1.0			
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0			
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0			
1,1-Dichloropropene	µg/kg	1	NONE	< 1.0	< 1.0			
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	< 1.0			
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0			
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	< 1.0			
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	< 1.0			
Trichloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0			
Dibromomethane	µg/kg	1	MCERTS	< 1.0	< 1.0			
Bromodichloromethane	µg/kg	1	NONE	< 1.0	< 1.0			
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	< 1.0			
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	< 1.0			
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0			
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0			
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	< 1.0			
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	< 1.0			
Tetrachloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0			
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	< 1.0			
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0			
1,1,1,2-Tetrachloroethane	µg/kg	1	NONE	< 1.0	< 1.0			
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0			
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	< 1.0			
Styrene	µg/kg	1	MCERTS	< 1.0	< 1.0			
Tribromomethane	µg/kg	1	MCERTS	< 1.0	< 1.0			
o-Xylene	µg/kg	1	MCERTS	< 1.0	< 1.0			
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0			
Isopropylbenzene	µg/kg	1	NONE	< 1.0	< 1.0			
Bromobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0			
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0			
2-Chlorotoluene	µg/kg	1	NONE	< 1.0	< 1.0			
4-Chlorotoluene	µg/kg	1	NONE	< 1.0	< 1.0			
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0			
tert-Butylbenzene	µg/kg	1	NONE	< 1.0	< 1.0			
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0			
sec-Butylbenzene	µg/kg	1	NONE	< 1.0	< 1.0			
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0			
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	< 1.0			
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0			
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0			
Butylbenzene	µg/kg	1	NONE	< 1.0	< 1.0			
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	< 1.0			
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0			
Hexachlorobutadiene	µg/kg	1	NONE	< 1.0	< 1.0			
1,2,3-Trichlorobenzene	µg/kg	1	NONE	< 1.0	< 1.0			

Analytical Report Number: 15-84901

Project / Site name: Burrow's Yard

Lab Sample Number				519701	519702			
Sample Reference				QBH01	QBH02			
Sample Number				3	2			
Depth (m)				1.00	0.60			
Date Sampled				03/12/2015	11/12/2015			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		

PCBs by GC-MS

PCB Congener 28	mg/kg	0.001	MCERTS	< 0.001	0.003			
PCB Congener 52	mg/kg	0.001	MCERTS	< 0.001	0.003			
PCB Congener 101	mg/kg	0.001	MCERTS	0.009	0.005			
PCB Congener 118	mg/kg	0.001	MCERTS	0.007	0.006			
PCB Congener 138	mg/kg	0.001	MCERTS	0.008	0.002			
PCB Congener 153	mg/kg	0.001	MCERTS	0.015	0.004			
PCB Congener 180	mg/kg	0.001	MCERTS	0.013	< 0.001			

Total PCBs by GC-MS

Total PCBs	mg/kg	0.007	MCERTS	0.051	0.022			
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Analytical Report Number: 15-84901

Project / Site name: Burrow's Yard

Lab Sample Number	519703						
Sample Reference	QBH02						
Sample Number	2						
Depth (m)	0.60						
Date Sampled	11/12/2015						
Time Taken	None Supplied						
Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status				

General Inorganics

pH	pH Units	N/A	ISO 17025	8.9			
Total Cyanide	µg/l	10	ISO 17025	< 10			
Sulphate as SO ₄	µg/l	100	ISO 17025	9900			

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	< 10			
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Speciated PAHs

Naphthalene	µg/l	0.01	NONE	< 0.01			
Acenaphthylene	µg/l	0.01	NONE	< 0.01			
Acenaphthene	µg/l	0.01	NONE	< 0.01			
Fluorene	µg/l	0.01	NONE	< 0.01			
Phenanthrene	µg/l	0.01	NONE	< 0.01			
Anthracene	µg/l	0.01	NONE	< 0.01			
Fluoranthene	µg/l	0.01	NONE	< 0.01			
Pyrene	µg/l	0.01	NONE	< 0.01			
Benzo(a)anthracene	µg/l	0.01	NONE	< 0.01			
Chrysene	µg/l	0.01	NONE	< 0.01			
Benzo(b)fluoranthene	µg/l	0.01	NONE	< 0.01			
Benzo(k)fluoranthene	µg/l	0.01	NONE	< 0.01			
Benzo(a)pyrene	µg/l	0.01	NONE	< 0.01			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	NONE	< 0.01			
Dibenz(a,h)anthracene	µg/l	0.01	NONE	< 0.01			
Benzo(ghi)perylene	µg/l	0.01	NONE	< 0.01			

Total PAH

Total EPA-16 PAHs	µg/l	0.2	NONE	< 0.2			
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Heavy Metals / Metalloids

Arsenic (dissolved)	µg/l	1.1	ISO 17025	7.3			
Boron (dissolved)	µg/l	10	ISO 17025	19			
Cadmium (dissolved)	µg/l	0.08	ISO 17025	< 0.08			
Chromium (dissolved)	µg/l	0.4	ISO 17025	1.1			
Copper (dissolved)	µg/l	0.7	ISO 17025	13			
Lead (dissolved)	µg/l	1	ISO 17025	10			
Mercury (dissolved)	µg/l	0.5	ISO 17025	< 0.5			
Nickel (dissolved)	µg/l	0.3	ISO 17025	2.5			
Tin (dissolved)	µg/l	1	ISO 17025	7.8			
Zinc (dissolved)	µg/l	0.4	ISO 17025	16			



Analytical Report Number: 15-84901

Project / Site name: Burrow's Yard

Lab Sample Number	519703				
Sample Reference	QBH02				
Sample Number	2				
Depth (m)	0.60				
Date Sampled	11/12/2015				
Time Taken	None Supplied				

Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status					
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Monoaromatics

Benzene	µg/l	1	NONE	< 1.0				
Toluene	µg/l	1	NONE	< 1.0				
Ethylbenzene	µg/l	1	NONE	< 1.0				
p & m-xylene	µg/l	1	NONE	< 1.0				
o-xylene	µg/l	1	NONE	< 1.0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	10	NONE	< 10				

Petroleum Hydrocarbons

TPH1 (C10 - C40)	µg/l	10	NONE	< 10				
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TPH-CWG - Aliphatic >C5 - C6	µg/l	10	NONE	< 10				
TPH-CWG - Aliphatic >C6 - C8	µg/l	10	NONE	< 10				
TPH-CWG - Aliphatic >C8 - C10	µg/l	10	NONE	< 10				
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10				
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10				
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10				
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10				
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10				

TPH-CWG - Aromatic >C5 - C7	µg/l	10	NONE	< 10				
TPH-CWG - Aromatic >C7 - C8	µg/l	10	NONE	< 10				
TPH-CWG - Aromatic >C8 - C10	µg/l	10	NONE	< 10				
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10				
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10				
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10				
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10				
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10				

Total Chlorinated Solvents

Total Chlorinated Solvents	µg/l	50	NONE	< 50				
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Analytical Report Number: 15-84901

Project / Site name: Burrow's Yard

Lab Sample Number	519703						
Sample Reference	QBH02						
Sample Number	2						
Depth (m)	0.60						
Date Sampled	11/12/2015						
Time Taken	None Supplied						
Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status				

VOCs

Chloromethane	µg/l	1	NONE	< 1.0			
Chloroethane	µg/l	1	NONE	< 1.0			
Bromomethane	µg/l	1	NONE	< 1.0			
Vinyl Chloride	µg/l	1	NONE	< 1.0			
1,1-dichloroethene	µg/l	1	NONE	< 1.0			
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/l	1	NONE	< 1.0			
Cis-1,2-dichloroethene	µg/l	1	NONE	< 1.0			
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	NONE	< 1.0			
1,1-dichloroethane	µg/l	1	NONE	< 1.0			
2,2-Dichloropropane	µg/l	1	NONE	< 1.0			
Trichloromethane	µg/l	1	NONE	< 1.0			
1,1,1-Trichloroethane	µg/l	1	NONE	< 1.0			
1,2-dichloroethane	µg/l	1	NONE	< 1.0			
1,1-Dichloropropene	µg/l	1	NONE	< 1.0			
Trans-1,2-dichloroethene	µg/l	1	NONE	< 1.0			
Benzene	µg/l	1	NONE	< 1.0			
Tetrachloromethane	µg/l	1	NONE	< 1.0			
1,2-dichloropropane	µg/l	1	NONE	< 1.0			
Trichloroethene	µg/l	1	NONE	< 1.0			
Dibromomethane	µg/l	1	NONE	< 1.0			
Bromodichloromethane	µg/l	1	NONE	< 1.0			
Cis-1,3-dichloropropene	µg/l	1	NONE	< 1.0			
Trans-1,3-dichloropropene	µg/l	1	NONE	< 1.0			
Toluene	µg/l	1	NONE	< 1.0			
1,1,2-Trichloroethane	µg/l	1	NONE	< 1.0			
1,3-Dichloropropane	µg/l	1	NONE	< 1.0			
Dibromochloromethane	µg/l	1	NONE	< 1.0			
Tetrachloroethene	µg/l	1	NONE	< 1.0			
1,2-Dibromoethane	µg/l	1	NONE	< 1.0			
Chlorobenzene	µg/l	1	NONE	< 1.0			
1,1,1,2-Tetrachloroethane	µg/l	1	NONE	< 1.0			
Ethylbenzene	µg/l	1	NONE	< 1.0			
p & m-xylene	µg/l	1	NONE	< 1.0			
Styrene	µg/l	1	NONE	< 1.0			
Tribromomethane	µg/l	1	NONE	< 1.0			
o-xylene	µg/l	1	NONE	< 1.0			
1,1,2,2-Tetrachloroethane	µg/l	1	NONE	< 1.0			
Isopropylbenzene	µg/l	1	NONE	< 1.0			
Bromobenzene	µg/l	1	NONE	< 1.0			
N-Propylbenzene	µg/l	1	NONE	< 1.0			
2-Chlorotoluene	µg/l	1	NONE	< 1.0			
4-Chlorotoluene	µg/l	1	NONE	< 1.0			
1,3,5-Trimethylbenzene	µg/l	1	NONE	< 1.0			
Tert-Butylbenzene	µg/l	1	NONE	< 1.0			
1,2,4-Trimethylbenzene	µg/l	1	NONE	< 1.0			
Sec-Butylbenzene	µg/l	1	NONE	< 1.0			
1,3-dichlorobenzene	µg/l	1	NONE	< 1.0			
P-Isopropyltoluene	µg/l	1	NONE	< 1.0			
1,2-dichlorobenzene	µg/l	1	NONE	< 1.0			
1,4-dichlorobenzene	µg/l	1	NONE	< 1.0			
Butylbenzene	µg/l	1	NONE	< 1.0			
1,2-Dibromo-3-chloropropane	µg/l	1	NONE	< 1.0			
1,2,4-Trichlorobenzene	µg/l	1	NONE	< 1.0			
Hexachlorobutadiene	µg/l	0.1	NONE	< 0.1			
1,2,3-Trichlorobenzene	µg/l	1	NONE	< 1.0			

PCBs by GC-MS

PCB Congener 28	µg/l	0.05	NONE	< 0.05			
PCB Congener 52	µg/l	0.05	NONE	< 0.05			
PCB Congener 101	µg/l	0.02	NONE	< 0.02			
PCB Congener 118	µg/l	0.05	NONE	< 0.05			
PCB Congener 138	µg/l	0.05	NONE	< 0.05			
PCB Congener 153	µg/l	0.05	NONE	< 0.05			
PCB Congener 180	µg/l	0.05	NONE	< 0.05			

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

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Analytical Report Number: 15-84901

Project / Site name: Burrow's Yard

Lab Sample Number				519703				
Sample Reference				QBH02				
Sample Number				2				
Depth (m)				0.60				
Date Sampled				11/12/2015				
Time Taken				None Supplied				
Analytical Parameter (Leachate Analysis)				Units	Limit of detection	Accreditation Status		
PCBs by GC-MS								
Total PCBs				µg/l	0.4	NONE	< 0.40	

Analytical Report Number : 15-84901

Project / Site name: Burrow's Yard

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

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

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
519701	QBH01	3	1.00	Brown loam and sand with gravel.
519702	QBH02	2	0.60	Brown clay and sand with gravel.

Analytical Report Number : 15-84901

Project / Site name: Burrow's Yard

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron in leachate	Determination of boron by acidification followed by ICP-OES.	In-house method based on MEWAM	L039-PL	W	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
BTEX and MTBE in leachates	Determination of BTEX and MTBE in leachates by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	NONE
BTEX and MTBE in soil	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Metals by ICP-OES in leachate	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
Monohydric phenols in leachate	Determination of phenols in leachate by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	ISO 17025
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Organic matter in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L023-PL	D	MCERTS
PCB's By GC-MS in leachate	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L028-UK	W	NONE
pH in leachate	Determination of pH in leachate by electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L005-PL	W	ISO 17025
pH in soil (automated)	Determination of pH in soil by addition of water followed by electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	D	MCERTS
Speciated EPA-16 PAHs in leachate	Determination of PAH compounds in leachate by extraction in dichloromethane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L070-PL	W	NONE
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE

Analytical Report Number : 15-84901

Project / Site name: Burrow's Yard

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate in leachates	Determination of sulphate in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Sulphate, water soluble, in soil	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests, 2:1 water:soil extraction, analysis by ICP-OES.	L038-PL	D	MCERTS
Total Chlorinated Solvents in leachate	Determination of chlorinated solvents in leachate by headspace GC-MS.	In-house method based on USEPA8260	L017-UK	W	NONE
Total Chlorinated Solvents in soil	Determination of chlorinated solvents in soil by headspace GC-MS.	In-house method based on USEPA8260	L017-UK	W	MCERTS
Total cyanide in leachate	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
TPH Banding in Soil by FID	Determination of hexane extractable hydrocarbons in soil by GC-FID.	In-house method, TPH with carbon banding.	L076-PL	W	MCERTS
TPH1 (Leachates)	Determination of dichloromethane extractable hydrocarbons in leachate by GC-MS.	In-house method	L070-PL	W	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method	L076-PL	W	MCERTS
Volatile organic compounds in leachate		In-house method based on USEPA8260	L036-UK	W	NONE
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

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Analytical Report Number : 15-84902

Project / Site name:	Burrows Yard	Samples received on:	17/12/2015
Your job number:	G762	Samples instructed on:	18/12/2015
Your order number:		Analysis completed by:	04/01/2016
Report Issue Number:	1	Report issued on:	04/01/2016
Samples Analysed:	2 soil samples		

Signed:

Rexona Rahman
Reporting Manager
For & on behalf of i2 Analytical Ltd.

Signed:

Emma Winter
Assistant Reporting Manager
For & on behalf of i2 Analytical Ltd.

Other office located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland

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

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

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

Analytical Report Number: 15-84902

Project / Site name: Burrows Yard

Lab Sample Number				519704	519705			
Sample Reference				M2	M4			
Sample Number				2	1			
Depth (m)				None Supplied	None Supplied			
Date Sampled				14/12/2015	14/12/2015			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)								
	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1			
Moisture Content	%	N/A	NONE	8.6	9.1			
Total mass of sample received	kg	0.001	NONE	1.8	1.9			

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Chrysotile- Loose fibres	Amosite- Insulation lagging			
Asbestos in Soil	Type	N/A	ISO 17025	Detected	Detected			

General Inorganics

pH	pH Units	N/A	MCERTS	9.3	8.4			
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1			
Water Soluble Sulphate (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.15	0.28			
Organic Matter	%	0.1	MCERTS	2.6	2.4			

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0			
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Acenaphthylene	mg/kg	0.1	MCERTS	< 0.10	0.20			
Acenaphthene	mg/kg	0.1	MCERTS	0.13	< 0.10			
Fluorene	mg/kg	0.1	MCERTS	< 0.10	0.22			
Phenanthrene	mg/kg	0.1	MCERTS	1.5	2.1			
Anthracene	mg/kg	0.1	MCERTS	0.41	0.43			
Fluoranthene	mg/kg	0.1	MCERTS	2.2	2.7			
Pyrene	mg/kg	0.1	MCERTS	1.6	2.1			
Benzo(a)anthracene	mg/kg	0.1	MCERTS	1.2	1.7			
Chrysene	mg/kg	0.05	MCERTS	1.4	1.9			
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	1.1	1.7			
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	0.81	1.1			
Benzo(a)pyrene	mg/kg	0.1	MCERTS	0.88	1.3			
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	0.49	0.83			
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10			
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.59	0.85			

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	12.3	17.3			
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	25	35			
Boron (water soluble)	mg/kg	0.2	MCERTS	1.7	3.0			
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.7	1.1			
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	16	19			
Copper (aqua regia extractable)	mg/kg	1	MCERTS	68	100			
Lead (aqua regia extractable)	mg/kg	1	MCERTS	150	280			
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	2.6	< 0.3			
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	14	15			
Tin (aqua regia extractable)	mg/kg	1	MCERTS	180	730			
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	550	910			

Analytical Report Number: 15-84902

Project / Site name: Burrows Yard

Lab Sample Number				519704	519705			
Sample Reference				M2	M4			
Sample Number				2	1			
Depth (m)				None Supplied	None Supplied			
Date Sampled				14/12/2015	14/12/2015			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		

Monoaromatics

Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0			
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0			
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0			
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0			
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0			
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0			

Petroleum Hydrocarbons

TPH C10 - C40	mg/kg	10	MCERTS	140	64			
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0			
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0			
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0			
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	16	17			
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	16	17			
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0			
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0			
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	19	< 10			
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	100	39			
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	120	47			

Chlorinated Solvents

Total Chlorinated Solvents	µg/kg	100	NONE	< 100	< 100			
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Analytical Report Number: 15-84902

Project / Site name: Burrows Yard

Lab Sample Number	519704	519705			
Sample Reference	M2	M4			
Sample Number	2	1			
Depth (m)	None Supplied	None Supplied			
Date Sampled	14/12/2015	14/12/2015			
Time Taken	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

VOCs

Chloromethane	µg/kg	1	ISO 17025	< 1.0	< 1.0			
Chloroethane	µg/kg	1	ISO 17025	< 1.0	< 1.0			
Bromomethane	µg/kg	1	ISO 17025	< 1.0	< 1.0			
Vinyl Chloride	µg/kg	1	ISO 17025	< 1.0	< 1.0			
Trichlorofluoromethane	µg/kg	1	ISO 17025	< 1.0	< 1.0			
1,1-Dichloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0			
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	< 1.0			
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0			
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0			
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0			
2,2-Dichloropropane	µg/kg	1	NONE	< 1.0	< 1.0			
Trichloromethane	µg/kg	1	MCERTS	< 1.0	< 1.0			
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0			
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0			
1,1-Dichloropropene	µg/kg	1	NONE	< 1.0	< 1.0			
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	< 1.0			
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0			
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	< 1.0			
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	< 1.0			
Trichloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0			
Dibromomethane	µg/kg	1	MCERTS	< 1.0	< 1.0			
Bromodichloromethane	µg/kg	1	NONE	< 1.0	< 1.0			
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	< 1.0			
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	< 1.0			
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0			
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0			
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	< 1.0			
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	< 1.0			
Tetrachloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0			
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	< 1.0			
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0			
1,1,1,2-Tetrachloroethane	µg/kg	1	NONE	< 1.0	< 1.0			
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0			
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	< 1.0			
Styrene	µg/kg	1	MCERTS	< 1.0	< 1.0			
Tribromomethane	µg/kg	1	MCERTS	< 1.0	< 1.0			
o-Xylene	µg/kg	1	MCERTS	< 1.0	< 1.0			
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0			
Isopropylbenzene	µg/kg	1	NONE	< 1.0	< 1.0			
Bromobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0			
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0			
2-Chlorotoluene	µg/kg	1	NONE	< 1.0	< 1.0			
4-Chlorotoluene	µg/kg	1	NONE	< 1.0	< 1.0			
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0			
tert-Butylbenzene	µg/kg	1	NONE	< 1.0	< 1.0			
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0			
sec-Butylbenzene	µg/kg	1	NONE	< 1.0	< 1.0			
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0			
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	< 1.0			
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0			
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0			
Butylbenzene	µg/kg	1	NONE	< 1.0	< 1.0			
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	< 1.0			
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0			
Hexachlorobutadiene	µg/kg	1	NONE	< 1.0	< 1.0			
1,2,3-Trichlorobenzene	µg/kg	1	NONE	< 1.0	< 1.0			

Analytical Report Number: 15-84902

Project / Site name: Burrows Yard

Lab Sample Number				519704	519705			
Sample Reference				M2	M4			
Sample Number				2	1			
Depth (m)				None Supplied	None Supplied			
Date Sampled				14/12/2015	14/12/2015			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		

PCBs by GC-MS

PCB Congener 28	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
PCB Congener 52	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
PCB Congener 101	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
PCB Congener 118	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
PCB Congener 138	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
PCB Congener 153	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
PCB Congener 180	mg/kg	0.001	MCERTS	< 0.001	< 0.001			

Total PCBs by GC-MS

Total PCBs	mg/kg	0.007	MCERTS	< 0.007	< 0.007			
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Analytical Report Number : 15-84902

Project / Site name: Burrows Yard

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

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

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
519704	M2	2	None Supplied	Brown loam and sand with brick and vegetation.
519705	M4	1	None Supplied	Brown loam and sand with gravel and vegetation.

Analytical Report Number : 15-84902

Project / Site name: Burrows Yard

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
BTEX and MTBE in soil	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Organic matter in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L023-PL	D	MCERTS
PCB's By GC-MS in soil	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L027-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Sulphate, water soluble, in soil	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests, 2:1 water:soil extraction, analysis by ICP-OES.	L038-PL	D	MCERTS
Total Chlorinated Solvents in soil	Determination of chlorinated solvents in soil by headspace GC-MS.	In-house method based on USEPA8260	L017-UK	W	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
TPH Banding in Soil by FID	Determination of hexane extractable hydrocarbons in soil by GC-FID.	In-house method, TPH with carbon banding.	L076-PL	W	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method	L076-PL	W	MCERTS
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS



Analytical Report Number : 15-84902

Project / Site name: Burrows Yard

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

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Analytical Report Number : 15-84903

Project / Site name:	Burrows Yard	Samples received on:	17/12/2015
Your job number:	G762	Samples instructed on:	18/12/2015
Your order number:		Analysis completed by:	05/01/2016
Report Issue Number:	1	Report issued on:	05/01/2016
Samples Analysed:	2 wac multi samples		

Signed:



Dr Irma Doyle
Assistant Quality Manager
For & on behalf of i2 Analytical Ltd.

Signed:



Emma Winter
Assistant Reporting Manager
For & on behalf of i2 Analytical Ltd.

Other office located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland

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

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

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Waste Acceptance Criteria Analytical Results

Report No:	15-84903						
Location	Burrows Yard						
Lab Reference (Sample Number)	519706						
Sampling Date	14/12/2015						
Sample ID	M2 1						
Depth (m)							

Results are expressed on a dry weight basis, after correction for moisture content where applicable
Stated limits are for guidance only and I2 cannot be held responsible for any discrepancies with current legislation

* = UKAS accredited (liquid eluate analysis only)

** = MCERTS accredited

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Waste Acceptance Criteria Analytical Results

Report No:	15-84903						
Location	Burrows Yard						
Lab Reference (Sample Number)	519707						
Sampling Date	14/12/2015						
Sample ID	M4 1						
Depth (m)							
				</			

Results are expressed on a dry weight basis, after correction for moisture content where applicable.
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation.

* = UKAS accredited (liquid eluate analysis only)

** = MCERTS accredited

Analytical Report Number : 15-84903

Project / Site name: Burrows Yard

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

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

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
519706	M2	1	None Supplied	Brown loam and sand with gravel and vegetation.
519707	M4	1	None Supplied	Brown loam and sand with gravel and vegetation.

Analytical Report Number : 15-84903

Project / Site name: Burrows Yard

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
BTEX (Sum of BTEX compounds) in soil	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Chloride in WAC leachate (BS EN 12457-3 Prep)	Determination of Chloride colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260.	L082-PL	W	ISO 17025
DOC in WAC leachate (BS EN 12457-3 Prep)	Determination of dissolved organic carbon in leachate by TOC/DOC NDIR analyser.	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L037-PL	W	NONE
Fluoride in WAC leachate (BS EN 12457-3 Prep)	Determination of fluoride in leachate by 1:1ratio with a buffer solution followed by Ion Selective Electrode.	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L033-PL	W	NONE
Metals in WAC leachate (BS EN 12457-3 Prep)	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L039-PL	W	ISO 17025
Mineral Oil in Soil	Determination of dichloromethane/hexane extractable hydrocarbons in soil by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
PCB's by GC-MS in soil	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L027-PL	D	MCERTS
Phenol Index in WAC leachate (BS EN 12457-3 Prep)	Determination of monohydric phenols in leachate by continuous flow analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	ISO 17025
Sociated WAC-17 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Sulphate in WAC leachate (BS EN 12457-3 Prep)	Determination of sulphate in leachate by acidification followed by ICP-OES.	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L039-PL	W	ISO 17025
TDS in WAC leachate (BS EN 12457-3 Prep)	Determination of total dissolved solids in leachate by electrometric measurement.	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L004-PL	W	NONE
Total organic carbon in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L023-PL	D	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.

**Lara Weaver**

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Analytical Report Number : 15-84904

Project / Site name:	Burrow's Yard	Samples received on:	11/12/2015
Your job number:	G762	Samples instructed on:	18/12/2015
Your order number:		Analysis completed by:	31/12/2015
Report Issue Number:	1	Report issued on:	31/12/2015
Samples Analysed:	3 leachate samples - 12 soil samples		

Signed:

Dr Irma Doyle
Assistant Quality Manager
For & on behalf of i2 Analytical Ltd.

Signed:

Emma Winter
Assistant Reporting Manager
For & on behalf of i2 Analytical Ltd.

Other office located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland

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

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

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

Analytical Report Number: 15-84904

Project / Site name: Burrow's Yard

Lab Sample Number	519708	519709	519710	519711	519712
Sample Reference	QWS02	QWS03	QWS03	QWS04	QWS05A
Sample Number	2	3	8	5	2
Depth (m)	0.60	1.00	3.70	2.00	0.60
Date Sampled	03/12/2015	03/12/2015	03/12/2015	04/12/2015	03/12/2015
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied

Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	12	13	28	34	14
Total mass of sample received	kg	0.001	NONE	1.9	1.8	1.3	1.7	1.5

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Chrysotile- Loose Fibres	Chrysotile, Amosite- Loose Fibres	-	Chrysotile- Loose Fibres	Chrysotile- Loose Fibres
Asbestos in Soil	Type	N/A	ISO 17025	Detected	Detected	Not-detected	Detected	Detected

General Inorganics

pH	pH Units	N/A	MCERTS	9.1	8.0	7.8	7.7	7.8
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Water Soluble Sulphate (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.57	0.21	0.32	0.76	0.044
Organic Matter	%	0.1	MCERTS	2.5	4.3	1.3	7.2	6.9

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	0.30	< 0.05	0.55	1.0
Acenaphthylene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	mg/kg	0.1	MCERTS	0.15	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	0.22
Phenanthrene	mg/kg	0.1	MCERTS	1.6	1.0	< 0.10	1.5	1.8
Anthracene	mg/kg	0.1	MCERTS	0.34	0.15	< 0.10	0.15	0.10
Fluoranthene	mg/kg	0.1	MCERTS	2.5	1.2	< 0.10	1.6	1.2
Pyrene	mg/kg	0.1	MCERTS	2.1	0.97	< 0.10	1.9	1.1
Benzo(a)anthracene	mg/kg	0.1	MCERTS	1.8	1.0	< 0.10	1.4	1.1
Chrysene	mg/kg	0.05	MCERTS	2.0	1.4	< 0.05	1.2	1.8
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	2.0	1.3	< 0.10	0.80	1.5
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	1.4	0.88	< 0.10	0.31	0.48
Benzo(a)pyrene	mg/kg	0.1	MCERTS	1.4	0.84	< 0.10	0.96	0.57
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	0.94	0.75	< 0.10	< 0.10	0.45
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	0.27	0.21	< 0.10	< 0.10	< 0.10
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.1	1.1	< 0.05	< 0.05	0.55

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	17.6	11.1	< 1.60	10.3	11.8
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Analytical Report Number: 15-84904

Project / Site name: Burrow's Yard

Lab Sample Number	519708	519709	519710	519711	519712
Sample Reference	QWS02	QWS03	QWS03	QWS04	QWS05A
Sample Number	2	3	8	5	2
Depth (m)	0.60	1.00	3.70	2.00	0.60
Date Sampled	03/12/2015	03/12/2015	03/12/2015	04/12/2015	03/12/2015
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied

Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	33	32	< 1.0	16	39
Boron (water soluble)	mg/kg	0.2	MCERTS	7.2	3.2	3.2	1.9	0.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.6	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	24	25	32	20	29
Copper (aqua regia extractable)	mg/kg	1	MCERTS	210	290	4.5	700	250
Lead (aqua regia extractable)	mg/kg	1	MCERTS	190	840	18	280	170
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	2.5	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	21	39	29	51	41
Tin (aqua regia extractable)	mg/kg	1	MCERTS	270	910	-	130	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	1200	650	97	430	300

Monoaromatics

Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH C10 - C40	mg/kg	10	MCERTS	480	440	400	16000	180
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	2.9	3.4	8.2	18	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	20	21	170	810	8.5
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	180	190	200	8300	71
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	200	220	380	9100	81

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	1.6
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	4.0	4.4
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	29	14	< 10	490	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	150	130	19	5800	54
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	180	150	26	6300	66

Chlorinated Solvents

Total Chlorinated Solvents	µg/kg	100	NONE	< 100	< 100	-	< 100	-
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Analytical Report Number: 15-84904

Project / Site name: Burrow's Yard

Lab Sample Number	519708	519709	519710	519711	519712
Sample Reference	QWS02	QWS03	QWS03	QWS04	QWS05A
Sample Number	2	3	8	5	2
Depth (m)	0.60	1.00	3.70	2.00	0.60
Date Sampled	03/12/2015	03/12/2015	03/12/2015	04/12/2015	03/12/2015
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

VOCs

Chloromethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	-
Chloroethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	-
Bromomethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	-
Vinyl Chloride	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	-
Trichlorofluoromethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	-
1,1-Dichloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
2,2-Dichloropropane	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	-
Trichloromethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
1,1-Dichloropropene	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	-
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
Trichloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
Dibromomethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
Bromodichloromethane	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	-
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	-
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	-
Tetrachloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	-
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
1,1,1,2-Tetrachloroethane	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	-
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
Styrene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
Tribromomethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
o-Xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
Isopropylbenzene	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	-
Bromobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	-
2-Chlorotoluene	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	-
4-Chlorotoluene	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	-
tert-Butylbenzene	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	-
sec-Butylbenzene	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
Butylbenzene	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
Hexachlorobutadiene	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	-
1,2,3-Trichlorobenzene	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	-

Analytical Report Number: 15-84904

Project / Site name: Burrow's Yard

Lab Sample Number	519708	519709	519710	519711	519712
Sample Reference	QWS02	QWS03	QWS03	QWS04	QWS05A
Sample Number	2	3	8	5	2
Depth (m)	0.60	1.00	3.70	2.00	0.60
Date Sampled	03/12/2015	03/12/2015	03/12/2015	04/12/2015	03/12/2015
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied

Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
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PCBs by GC-MS

PCB Congener 28	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	< 0.001	-
PCB Congener 52	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	< 0.001	-
PCB Congener 101	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	< 0.001	-
PCB Congener 118	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	< 0.001	-
PCB Congener 138	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	< 0.001	-
PCB Congener 153	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	< 0.001	-
PCB Congener 180	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	< 0.001	-

Total PCBs by GC-MS

Total PCBs	mg/kg	0.007	MCERTS	< 0.007	< 0.007	-	< 0.007	-
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Analytical Report Number: 15-84904

Project / Site name: Burrow's Yard

Lab Sample Number	519713	519714	519715	519716	519717
Sample Reference	QWS05A	QWS06	QWS07	QWS11	QWS11
Sample Number	8	2	1	1	6
Depth (m)	2.20	0.60	0.30	0.30	2.00-2.20
Date Sampled	03/12/2015	03/12/2015	07/12/2015	03/12/2015	03/12/2015
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	11	8.3
Total mass of sample received	kg	0.001	NONE	1.2	2.0
				2.0	1.6
				1.6	1.7

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Amosite, Chrysotile- Loose fibres	-	Chrysotile- Loose fibres	Chrysotile- Loose fibres	-
Asbestos in Soil	Type	N/A	ISO 17025	Detected	-	Detected	Detected	Not-detected

General Inorganics

pH	pH Units	N/A	MCERTS	8.2	-	8.2	7.3	6.9
Total Cyanide	mg/kg	1	MCERTS	< 1	-	< 1	< 1	< 1
Water Soluble Sulphate (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.17	-	0.22	1.7	0.26
Organic Matter	%	0.1	MCERTS	8.6	-	7.0	5.9	2.0

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	1.1	0.25	0.78	0.79	< 0.05
Acenaphthylene	mg/kg	0.1	MCERTS	0.29	< 0.10	0.92	< 0.10	< 0.10
Acenaphthene	mg/kg	0.1	MCERTS	< 0.10	0.42	< 0.10	< 0.10	< 0.10
Fluorene	mg/kg	0.1	MCERTS	0.32	0.35	0.26	0.26	< 0.10
Phenanthrene	mg/kg	0.1	MCERTS	2.1	1.2	1.3	2.4	< 0.10
Anthracene	mg/kg	0.1	MCERTS	0.31	0.22	0.42	0.31	< 0.10
Fluoranthene	mg/kg	0.1	MCERTS	1.4	1.9	2.7	3.2	< 0.10
Pyrene	mg/kg	0.1	MCERTS	1.8	1.4	3.6	2.5	< 0.10
Benzo(a)anthracene	mg/kg	0.1	MCERTS	1.0	1.7	2.8	2.4	< 0.10
Chrysene	mg/kg	0.05	MCERTS	1.8	1.4	3.6	3.5	< 0.05
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	2.0	2.3	7.0	3.5	< 0.10
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	0.77	0.69	2.4	1.1	< 0.10
Benzo(a)pyrene	mg/kg	0.1	MCERTS	1.3	1.4	5.8	2.0	< 0.10
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	0.86	1.1	2.9	1.2	< 0.10
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	0.33	0.32	0.73	0.30	< 0.10
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.2	1.2	2.8	1.2	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	16.7	15.6	37.8	24.6	< 1.60
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Analytical Report Number: 15-84904

Project / Site name: Burrow's Yard

Lab Sample Number	519713	519714	519715	519716	519717
Sample Reference	QWS05A	QWS06	QWS07	QWS11	QWS11
Sample Number	8	2	1	1	6
Depth (m)	2.20	0.60	0.30	0.30	2.00-2.20
Date Sampled	03/12/2015	03/12/2015	07/12/2015	03/12/2015	03/12/2015
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied

Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	17	-	36	39	16
Boron (water soluble)	mg/kg	0.2	MCERTS	0.9	-	3.5	0.9	0.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	-	0.7	1.9	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	60	-	29	25	17
Copper (aqua regia extractable)	mg/kg	1	MCERTS	440	-	230	250	45
Lead (aqua regia extractable)	mg/kg	1	MCERTS	120	-	230	1000	33
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	34	-	41	42	23
Tin (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	4500	120
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	320	-	1100	4700	690

Monoaromatics

Benzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH C10 - C40	mg/kg	10	MCERTS	1900	-	1900	500	< 10
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0	-	3.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	< 8.0	-	31	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	42	-	190	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	47	-	220	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	< 0.1
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	< 0.1
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	< 0.1
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0	-	8.9	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	15	-	38	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	80	-	190	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	95	-	230	< 10

Chlorinated Solvents

Total Chlorinated Solvents	µg/kg	100	NONE	-	-	-	< 100	< 100
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Analytical Report Number: 15-84904

Project / Site name: Burrow's Yard

Lab Sample Number				519713	519714	519715	519716	519717
Sample Reference				QWS05A	QWS06	QWS07	QWS11	QWS11
Sample Number				8	2	1	1	6
Depth (m)				2.20	0.60	0.30	0.30	2.00-2.20
Date Sampled				03/12/2015	03/12/2015	07/12/2015	03/12/2015	03/12/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	-	-	< 1.0	< 1.0
Chloroethane	µg/kg	1	ISO 17025	-	-	-	< 1.0	< 1.0
Bromomethane	µg/kg	1	ISO 17025	-	-	-	< 1.0	< 1.0
Vinyl Chloride	µg/kg	1	ISO 17025	-	-	-	< 1.0	< 1.0
Trichlorofluoromethane	µg/kg	1	ISO 17025	-	-	-	< 1.0	< 1.0
1,1-Dichloroethene	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	-	-	< 1.0	< 1.0
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
1,1-Dichloroethane	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
2,2-Dichloropropane	µg/kg	1	NONE	-	-	-	< 1.0	< 1.0
Trichloromethane	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
1,2-Dichloroethane	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
1,1-Dichloropropene	µg/kg	1	NONE	-	-	-	< 1.0	< 1.0
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	-	-	< 1.0	< 1.0
Benzene	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
Tetrachloromethane	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
1,2-Dichloropropane	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
Trichloroethene	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
Dibromomethane	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
Bromodichloromethane	µg/kg	1	NONE	-	-	-	< 1.0	< 1.0
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	-	< 1.0	< 1.0
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	-	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	-	-	< 1.0	< 1.0
Dibromochloromethane	µg/kg	1	ISO 17025	-	-	-	< 1.0	< 1.0
Tetrachloroethene	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	-	-	< 1.0	< 1.0
Chlorobenzene	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	µg/kg	1	NONE	-	-	-	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
p & m-Xylene	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
Styrene	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
Tribromomethane	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
o-Xylene	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
Isopropylbenzene	µg/kg	1	NONE	-	-	-	< 1.0	< 1.0
Bromobenzene	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
n-Propylbenzene	µg/kg	1	ISO 17025	-	-	-	< 1.0	< 1.0
2-Chlorotoluene	µg/kg	1	NONE	-	-	-	< 1.0	< 1.0
4-Chlorotoluene	µg/kg	1	NONE	-	-	-	< 1.0	< 1.0
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	-	< 1.0	< 1.0
tert-Butylbenzene	µg/kg	1	NONE	-	-	-	< 1.0	< 1.0
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	-	< 1.0	< 1.0
sec-Butylbenzene	µg/kg	1	NONE	-	-	-	< 1.0	< 1.0
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	-	-	< 1.0	< 1.0
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	-	-	< 1.0	< 1.0
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
Butylbenzene	µg/kg	1	NONE	-	-	-	< 1.0	< 1.0
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	-	-	< 1.0	< 1.0
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	-	-	< 1.0	< 1.0
Hexachlorobutadiene	µg/kg	1	NONE	-	-	-	< 1.0	< 1.0
1,2,3-Trichlorobenzene	µg/kg	1	NONE	-	-	-	< 1.0	< 1.0

Analytical Report Number: 15-84904

Project / Site name: Burrow's Yard

Lab Sample Number				519713	519714	519715	519716	519717
Sample Reference				QWS05A	QWS06	QWS07	QWS11	QWS11
Sample Number				8	2	1	1	6
Depth (m)				2.20	0.60	0.30	0.30	2.00-2.20
Date Sampled				03/12/2015	03/12/2015	07/12/2015	03/12/2015	03/12/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.001	MCERTS	-	-	-	< 0.001	< 0.001
PCB Congener 52	mg/kg	0.001	MCERTS	-	-	-	< 0.001	< 0.001
PCB Congener 101	mg/kg	0.001	MCERTS	-	-	-	< 0.001	< 0.001
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	-	< 0.001	< 0.001
PCB Congener 138	mg/kg	0.001	MCERTS	-	-	-	< 0.001	< 0.001
PCB Congener 153	mg/kg	0.001	MCERTS	-	-	-	< 0.001	< 0.001
PCB Congener 180	mg/kg	0.001	MCERTS	-	-	-	< 0.001	< 0.001
Total PCBs by GC-MS								
Total PCBs	mg/kg	0.007	MCERTS	-	-	-	< 0.007	< 0.007

Analytical Report Number: 15-84904

Project / Site name: Burrow's Yard

Lab Sample Number	519718	519719			
Sample Reference	QWS14	QWS14			
Sample Number	1	5			
Depth (m)	0.30	1.60			
Date Sampled	04/12/2015	04/12/2015			
Time Taken	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	18	16
Total mass of sample received	kg	0.001	NONE	2.0	2.0

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Chrysotile-Hard/Cement Type Material, Insulation Lagging	Chrysotile-Insulation Lagging			
Asbestos in Soil	Type	N/A	ISO 17025	Detected	Detected			

General Inorganics

pH	pH Units	N/A	MCERTS	7.6	7.4			
Total Cyanide	mg/kg	1	MCERTS	5	< 1			
Water Soluble Sulphate (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.87	0.067			
Organic Matter	%	0.1	MCERTS	3.0	1.2			

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0			
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.27	< 0.05			
Acenaphthylene	mg/kg	0.1	MCERTS	< 0.10	< 0.10			
Acenaphthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10			
Fluorene	mg/kg	0.1	MCERTS	< 0.10	< 0.10			
Phenanthrene	mg/kg	0.1	MCERTS	2.6	< 0.10			
Anthracene	mg/kg	0.1	MCERTS	0.32	< 0.10			
Fluoranthene	mg/kg	0.1	MCERTS	4.5	< 0.10			
Pyrene	mg/kg	0.1	MCERTS	3.3	< 0.10			
Benzo(a)anthracene	mg/kg	0.1	MCERTS	2.9	< 0.10			
Chrysene	mg/kg	0.05	MCERTS	4.2	< 0.05			
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	4.9	< 0.10			
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	1.4	< 0.10			
Benzo(a)pyrene	mg/kg	0.1	MCERTS	2.7	< 0.10			
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	1.5	< 0.10			
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	0.30	< 0.10			
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.5	< 0.05			

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	30.3	< 1.60			
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Analytical Report Number: 15-84904

Project / Site name: Burrow's Yard

Lab Sample Number	519718	519719			
Sample Reference	QWS14	QWS14			
Sample Number	1	5			
Depth (m)	0.30	1.60			
Date Sampled	04/12/2015	04/12/2015			
Time Taken	None Supplied	None Supplied			

Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	89	25			
Boron (water soluble)	mg/kg	0.2	MCERTS	1.9	0.4			
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	2.2	< 0.2			
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	34	10			
Copper (aqua regia extractable)	mg/kg	1	MCERTS	100	28			
Lead (aqua regia extractable)	mg/kg	1	MCERTS	230	39			
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	42	15			
Tin (aqua regia extractable)	mg/kg	1	MCERTS	-	-			
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	1500	62			

Monoaromatics

Benzene	µg/kg	1	MCERTS	-	< 1.0			
Toluene	µg/kg	1	MCERTS	-	< 1.0			
Ethylbenzene	µg/kg	1	MCERTS	-	< 1.0			
p & m-xylene	µg/kg	1	MCERTS	-	< 1.0			
o-xylene	µg/kg	1	MCERTS	-	< 1.0			
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	< 1.0			

Petroleum Hydrocarbons

TPH C10 - C40	mg/kg	10	MCERTS	190	< 10			
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.1	MCERTS	-	< 0.1			
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.1	MCERTS	-	< 0.1			
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.1	MCERTS	-	< 0.1			
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0			
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0			
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	< 8.0			
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	< 8.0			
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	< 10			

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.1	MCERTS	-	< 0.1			
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.1	MCERTS	-	< 0.1			
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.1	MCERTS	-	< 0.1			
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0			
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0			
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	< 10			
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	< 10			
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	< 10			

Chlorinated Solvents

Total Chlorinated Solvents	µg/kg	100	NONE	-	-			
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Analytical Report Number: 15-84904

Project / Site name: Burrow's Yard

Lab Sample Number				519718	519719			
Sample Reference				QWS14	QWS14			
Sample Number				1	5			
Depth (m)				0.30	1.60			
Date Sampled				04/12/2015	04/12/2015			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	-			
Chloroethane	µg/kg	1	ISO 17025	-	-			
Bromomethane	µg/kg	1	ISO 17025	-	-			
Vinyl Chloride	µg/kg	1	ISO 17025	-	-			
Trichlorofluoromethane	µg/kg	1	ISO 17025	-	-			
1,1-Dichloroethene	µg/kg	1	MCERTS	-	-			
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	-			
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	-			
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-			
1,1-Dichloroethane	µg/kg	1	MCERTS	-	-			
2,2-Dichloropropane	µg/kg	1	NONE	-	-			
Trichloromethane	µg/kg	1	MCERTS	-	-			
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	-			
1,2-Dichloroethane	µg/kg	1	MCERTS	-	-			
1,1-Dichloropropene	µg/kg	1	NONE	-	-			
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	-			
Benzene	µg/kg	1	MCERTS	-	-			
Tetrachloromethane	µg/kg	1	MCERTS	-	-			
1,2-Dichloropropane	µg/kg	1	MCERTS	-	-			
Trichloroethene	µg/kg	1	MCERTS	-	-			
Dibromomethane	µg/kg	1	MCERTS	-	-			
Bromodichloromethane	µg/kg	1	NONE	-	-			
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-			
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-			
Toluene	µg/kg	1	MCERTS	-	-			
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	-			
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	-			
Dibromochloromethane	µg/kg	1	ISO 17025	-	-			
Tetrachloroethene	µg/kg	1	MCERTS	-	-			
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	-			
Chlorobenzene	µg/kg	1	MCERTS	-	-			
1,1,1,2-Tetrachloroethane	µg/kg	1	NONE	-	-			
Ethylbenzene	µg/kg	1	MCERTS	-	-			
p & m-Xylene	µg/kg	1	MCERTS	-	-			
Styrene	µg/kg	1	MCERTS	-	-			
Tribromomethane	µg/kg	1	MCERTS	-	-			
o-Xylene	µg/kg	1	MCERTS	-	-			
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-			
Isopropylbenzene	µg/kg	1	NONE	-	-			
Bromobenzene	µg/kg	1	MCERTS	-	-			
n-Propylbenzene	µg/kg	1	ISO 17025	-	-			
2-Chlorotoluene	µg/kg	1	NONE	-	-			
4-Chlorotoluene	µg/kg	1	NONE	-	-			
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	-			
tert-Butylbenzene	µg/kg	1	NONE	-	-			
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	-			
sec-Butylbenzene	µg/kg	1	NONE	-	-			
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	-			
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	-			
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	-			
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	-			
Butylbenzene	µg/kg	1	NONE	-	-			
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	-			
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	-			
Hexachlorobutadiene	µg/kg	1	NONE	-	-			
1,2,3-Trichlorobenzene	µg/kg	1	NONE	-	-			

Analytical Report Number: 15-84904

Project / Site name: Burrow's Yard

Lab Sample Number				519718	519719			
Sample Reference				QWS14	QWS14			
Sample Number				1	5			
Depth (m)				0.30	1.60			
Date Sampled				04/12/2015	04/12/2015			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		
PCBs by GC-MS								
PCB Congener 28				mg/kg	0.001	MCERTS	-	-
PCB Congener 52				mg/kg	0.001	MCERTS	-	-
PCB Congener 101				mg/kg	0.001	MCERTS	-	-
PCB Congener 118				mg/kg	0.001	MCERTS	-	-
PCB Congener 138				mg/kg	0.001	MCERTS	-	-
PCB Congener 153				mg/kg	0.001	MCERTS	-	-
PCB Congener 180				mg/kg	0.001	MCERTS	-	-
Total PCBs by GC-MS								
Total PCBs				mg/kg	0.007	MCERTS	-	-



Analytical Report Number: 15-84904

Project / Site name: Burrow's Yard

Lab Sample Number	519720	519721	519722		
Sample Reference	QWS04	QWS07	QWS14		
Sample Number	5	1	5		
Depth (m)	2.00	0.30	1.60		
Date Sampled	04/12/2015	07/12/2015	04/12/2015		
Time Taken	None Supplied	None Supplied	None Supplied		
Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status		

General Inorganics

pH	pH Units	N/A	ISO 17025	8.5	8.6	8.7		
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10		
Sulphate as SO ₄	µg/l	100	ISO 17025	120000	17600	13000		
Total Organic Carbon (TOC)	mg/l	0.1	NONE	9.86	-	-		
Hardness - Total	mgCaCO ₃ /l	1	NONE	155	-	-		

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	< 10	< 10	< 10		
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Speciated PAHs

Naphthalene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Acenaphthylene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Acenaphthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Fluorene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Phenanthrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Benzo(a)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Chrysene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Benzo(b)fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Benzo(k)fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Benzo(a)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Indeno(1,2,3-cd)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Dibenz(a,h)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Benzo(ghi)perylene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		

Total PAH

Total EPA-16 PAHs	µg/l	0.2	NONE	< 0.2	< 0.2	< 0.2		
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Heavy Metals / Metalloids

Arsenic (dissolved)	µg/l	1.1	ISO 17025	23	12	< 1.1		
Boron (dissolved)	µg/l	10	ISO 17025	940	82	24		
Cadmium (dissolved)	µg/l	0.08	ISO 17025	< 0.08	< 0.08	< 0.08		
Chromium (dissolved)	µg/l	0.4	ISO 17025	12	2.2	1.3		
Copper (dissolved)	µg/l	0.7	ISO 17025	19	13	9.9		
Lead (dissolved)	µg/l	1	ISO 17025	< 1.0	16	6.1		
Mercury (dissolved)	µg/l	0.5	ISO 17025	< 0.5	< 0.5	< 0.5		
Nickel (dissolved)	µg/l	0.3	ISO 17025	2.3	2.1	1.0		
Tin (dissolved)	µg/l	1	ISO 17025	< 1.0	-	< 1.0		
Zinc (dissolved)	µg/l	0.4	ISO 17025	22	24	3.2		

Calcium (dissolved)	mg/l	0.012	ISO 17025	57	-	-		
Magnesium (dissolved)	mg/l	0.005	ISO 17025	2.9	-	-		



Analytical Report Number: 15-84904

Project / Site name: Burrow's Yard

Lab Sample Number	519720	519721	519722		
Sample Reference	QWS04	QWS07	QWS14		
Sample Number	5	1	5		
Depth (m)	2.00	0.30	1.60		
Date Sampled	04/12/2015	07/12/2015	04/12/2015		
Time Taken	None Supplied	None Supplied	None Supplied		

Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status					
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Monoaromatics

Benzene	µg/l	1	NONE	< 1.0	-	< 1.0		
Toluene	µg/l	1	NONE	< 1.0	-	< 1.0		
Ethylbenzene	µg/l	1	NONE	< 1.0	-	< 1.0		
p & m-xylene	µg/l	1	NONE	< 1.0	-	< 1.0		
o-xylene	µg/l	1	NONE	< 1.0	-	< 1.0		
MTBE (Methyl Tertiary Butyl Ether)	µg/l	10	NONE	< 10	-	< 10		

Petroleum Hydrocarbons

TPH1 (C10 - C40)	µg/l	10	NONE	< 10	< 10	< 10		
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TPH-CWG - Aliphatic >C5 - C6	µg/l	10	NONE	< 10	-	< 10		
TPH-CWG - Aliphatic >C6 - C8	µg/l	10	NONE	< 10	-	< 10		
TPH-CWG - Aliphatic >C8 - C10	µg/l	10	NONE	< 10	-	< 10		
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	-	< 10		
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	-	< 10		
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	-	< 10		
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	-	< 10		
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	-	< 10		

TPH-CWG - Aromatic >C5 - C7	µg/l	10	NONE	< 10	-	< 10		
TPH-CWG - Aromatic >C7 - C8	µg/l	10	NONE	< 10	-	< 10		
TPH-CWG - Aromatic >C8 - C10	µg/l	10	NONE	< 10	-	< 10		
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	-	< 10		
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	-	< 10		
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	-	< 10		
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	-	< 10		
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10	-	< 10		

Total Chlorinated Solvents

Total Chlorinated Solvents	µg/l	50	NONE	< 50	-	< 50		
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Analytical Report Number: 15-84904

Project / Site name: Burrow's Yard

Lab Sample Number	519720	519721	519722		
Sample Reference	QWS04	QWS07	QWS14		
Sample Number	5	1	5		
Depth (m)	2.00	0.30	1.60		
Date Sampled	04/12/2015	07/12/2015	04/12/2015		
Time Taken	None Supplied	None Supplied	None Supplied		
Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status		

VOCs

Chloromethane	µg/l	1	NONE	< 1.0	-	< 1.0		
Chloroethane	µg/l	1	NONE	< 1.0	-	< 1.0		
Bromomethane	µg/l	1	NONE	< 1.0	-	< 1.0		
Vinyl Chloride	µg/l	1	NONE	< 1.0	-	< 1.0		
1,1-dichloroethene	µg/l	1	NONE	< 1.0	-	< 1.0		
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/l	1	NONE	< 1.0	-	< 1.0		
Cis-1,2-dichloroethene	µg/l	1	NONE	< 1.0	-	< 1.0		
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	NONE	< 1.0	-	< 1.0		
1,1-dichloroethane	µg/l	1	NONE	< 1.0	-	< 1.0		
2,2-Dichloropropane	µg/l	1	NONE	< 1.0	-	< 1.0		
Trichloromethane	µg/l	1	NONE	< 1.0	-	< 1.0		
1,1,1-Trichloroethane	µg/l	1	NONE	< 1.0	-	< 1.0		
1,2-dichloroethane	µg/l	1	NONE	< 1.0	-	< 1.0		
1,1-Dichloropropene	µg/l	1	NONE	< 1.0	-	< 1.0		
Trans-1,2-dichloroethene	µg/l	1	NONE	< 1.0	-	< 1.0		
Benzene	µg/l	1	NONE	< 1.0	-	< 1.0		
Tetrachloromethane	µg/l	1	NONE	< 1.0	-	< 1.0		
1,2-dichloropropane	µg/l	1	NONE	< 1.0	-	< 1.0		
Trichloroethene	µg/l	1	NONE	< 1.0	-	< 1.0		
Dibromomethane	µg/l	1	NONE	< 1.0	-	< 1.0		
Bromodichloromethane	µg/l	1	NONE	< 1.0	-	< 1.0		
Cis-1,3-dichloropropene	µg/l	1	NONE	< 1.0	-	< 1.0		
Trans-1,3-dichloropropene	µg/l	1	NONE	< 1.0	-	< 1.0		
Toluene	µg/l	1	NONE	< 1.0	-	< 1.0		
1,1,2-Trichloroethane	µg/l	1	NONE	< 1.0	-	< 1.0		
1,3-Dichloropropane	µg/l	1	NONE	< 1.0	-	< 1.0		
Dibromochloromethane	µg/l	1	NONE	< 1.0	-	< 1.0		
Tetrachloroethene	µg/l	1	NONE	< 1.0	-	< 1.0		
1,2-Dibromoethane	µg/l	1	NONE	< 1.0	-	< 1.0		
Chlorobenzene	µg/l	1	NONE	< 1.0	-	< 1.0		
1,1,1,2-Tetrachloroethane	µg/l	1	NONE	< 1.0	-	< 1.0		
Ethylbenzene	µg/l	1	NONE	< 1.0	-	< 1.0		
p & m-xylene	µg/l	1	NONE	< 1.0	-	< 1.0		
Styrene	µg/l	1	NONE	< 1.0	-	< 1.0		
Tribromomethane	µg/l	1	NONE	< 1.0	-	< 1.0		
o-xylene	µg/l	1	NONE	< 1.0	-	< 1.0		
1,1,2,2-Tetrachloroethane	µg/l	1	NONE	< 1.0	-	< 1.0		
Isopropylbenzene	µg/l	1	NONE	< 1.0	-	< 1.0		
Bromobenzene	µg/l	1	NONE	< 1.0	-	< 1.0		
N-Propylbenzene	µg/l	1	NONE	< 1.0	-	< 1.0		
2-Chlorotoluene	µg/l	1	NONE	< 1.0	-	< 1.0		
4-Chlorotoluene	µg/l	1	NONE	< 1.0	-	< 1.0		
1,3,5-Trimethylbenzene	µg/l	1	NONE	< 1.0	-	< 1.0		
Tert-Butylbenzene	µg/l	1	NONE	< 1.0	-	< 1.0		
1,2,4-Trimethylbenzene	µg/l	1	NONE	< 1.0	-	< 1.0		
Sec-Butylbenzene	µg/l	1	NONE	< 1.0	-	< 1.0		
1,3-dichlorobenzene	µg/l	1	NONE	< 1.0	-	< 1.0		
P-Isopropyltoluene	µg/l	1	NONE	< 1.0	-	< 1.0		
1,2-dichlorobenzene	µg/l	1	NONE	< 1.0	-	< 1.0		
1,4-dichlorobenzene	µg/l	1	NONE	< 1.0	-	< 1.0		
Butylbenzene	µg/l	1	NONE	< 1.0	-	< 1.0		
1,2-Dibromo-3-chloropropane	µg/l	1	NONE	< 1.0	-	< 1.0		
1,2,4-Trichlorobenzene	µg/l	1	NONE	< 1.0	-	< 1.0		
Hexachlorobutadiene	µg/l	0.1	NONE	< 0.1	-	< 0.1		
1,2,3-Trichlorobenzene	µg/l	1	NONE	< 1.0	-	< 1.0		



Analytical Report Number: 15-84904

Project / Site name: Burrow's Yard

Lab Sample Number				519720	519721	519722		
Sample Reference				QWS04	QWS07	QWS14		
Sample Number				5	1	5		
Depth (m)				2.00	0.30	1.60		
Date Sampled				04/12/2015	07/12/2015	04/12/2015		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Leachate Analysis)				Units	Limit of detection	Accreditation Status		

PCBs by GC-MS

PCB Congener 28	µg/l	0.05	NONE	< 0.05	-	< 0.05		
PCB Congener 52	µg/l	0.05	NONE	< 0.05	-	< 0.05		
PCB Congener 101	µg/l	0.02	NONE	< 0.02	-	< 0.02		
PCB Congener 118	µg/l	0.05	NONE	< 0.05	-	< 0.05		
PCB Congener 138	µg/l	0.05	NONE	< 0.05	-	< 0.05		
PCB Congener 153	µg/l	0.05	NONE	< 0.05	-	< 0.05		
PCB Congener 180	µg/l	0.05	NONE	< 0.05	-	< 0.05		

PCBs by GC-MS

Total PCBs	µg/l	0.4	NONE	< 0.40	-	< 0.40		
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Analytical Report Number : 15-84904

Project / Site name: Burrow's Yard

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

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

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
519708	QWS02	2	0.60	Brown loam and sand.
519709	QWS03	3	1.00	Black loam and sand with brick.
519710	QWS03	8	3.70	Brown clay and sand.
519711	QWS04	5	2.00	Brown sand with gravel.
519712	QWS05A	2	0.60	Black loam and sand with gravel.
519713	QWS05A	8	2.20	Black loam and sand with gravel.
519714	QWS06	2	0.60	Brown loam and sand with gravel.
519715	QWS07	1	0.30	Brown loam and sand with gravel.
519716	QWS11	1	0.30	Brown loam and sand with gravel.
519717	QWS11	6	2.00-2.20	Brown clay and sand.
519718	QWS14	1	0.30	Brown loam and sand with gravel.
519719	QWS14	5	1.60	Brown clay and sand.

Analytical Report Number : 15-84904

Project / Site name: Burrow's Yard

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron in leachate	Determination of boron by acidification followed by ICP-OES.	In-house method based on MEWAM	L039-PL	W	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
BTEX and MTBE in leachates	Determination of BTEX and MTBE in leachates by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	NONE
BTEX and MTBE in soil	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Metals by ICP-OES in leachate	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
Monohydric phenols in leachate	Determination of phenols in leachate by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	ISO 17025
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Organic matter in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L023-PL	D	MCERTS
PCB's By GC-MS in leachate	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L028-UK	W	NONE
pH in leachate	Determination of pH in leachate by electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L005-PL	W	ISO 17025
pH in soil (automated)	Determination of pH in soil by addition of water followed by electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	D	MCERTS
Speciated EPA-16 PAHs in leachate	Determination of PAH compounds in leachate by extraction in dichloromethane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L070-PL	W	NONE
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE

Analytical Report Number : 15-84904

Project / Site name: Burrow's Yard

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate in leachates	Determination of sulphate in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Sulphate, water soluble, in soil	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests, 2:1 water:soil extraction, analysis by ICP-OES.	L038-PL	D	MCERTS
Total Chlorinated Solvents in leachate	Determination of chlorinated solvents in leachate by headspace GC-MS.	In-house method based on USEPA8260	L017-UK	W	NONE
Total Chlorinated Solvents in soil	Determination of chlorinated solvents in soil by headspace GC-MS.	In-house method based on USEPA8260	L017-UK	W	MCERTS
Total cyanide in leachate	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
Total Hardness of leachates	Determination of hardness in leachates by calculation from calcium and magnesium.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L045-PL	W	NONE
Total organic carbon in leachate	Determination of dissolved organic carbon in leachate by TOC/DOC NDIR analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037-PL	W	NONE
TPH Banding in Soil by FID	Determination of hexane extractable hydrocarbons in soil by GC-FID.	In-house method, TPH with carbon banding.	L076-PL	W	MCERTS
TPH1 (Leachates)	Determination of dichloromethane extractable hydrocarbons in leachate by GC-MS.	In-house method	L070-PL	W	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method	L076-PL	W	MCERTS
Volatile organic compounds in leachate		In-house method based on USEPA8260	L036-UK	W	NONE
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

**Lara Weaver**

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Analytical Report Number : 15-84915

Project / Site name: Burrow's Yard

Samples received on: 18/12/2015

Your job number: G762

Samples instructed on: 18/12/2015

Your order number:

Analysis completed by: 31/12/2015

Report Issue Number: 1

Report issued on: 31/12/2015

Samples Analysed: 5 leachate samples - 8 soil samples - 4 water samples

Signed: 

Dr Irma Doyle
Assistant Quality Manager
For & on behalf of i2 Analytical Ltd.

Signed: 

Emma Winter
Assistant Reporting Manager
For & on behalf of i2 Analytical Ltd.

Other office located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland

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

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

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Analytical Report Number: 15-84915

Project / Site name: Burrow's Yard

Lab Sample Number	519810	519811	519812	519813	519814
Sample Reference	QTT01	QTT01	QTT01	QTT01B	QTT02
Sample Number	3	5	6	9	2
Depth (m)	1.00	2.50	3.60	2.50	0.45
Date Sampled	14/12/2015	14/12/2015	14/12/2015	14/12/2015	14/12/2015
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied

Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	21	21	13	21	19
Total mass of sample received	kg	0.001	NONE	1.6	1.9	2.0	2.0	2.0

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Chrysotile- Loose Fibres	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Detected	Not-detected	-	-	Not-detected

General Inorganics

pH	pH Units	N/A	MCERTS	7.6	7.2	-	-	7.7
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	-	-	< 1
Water Soluble Sulphate (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.25	0.079	-	-	0.070
Organic Matter	%	0.1	MCERTS	5.8	< 0.1	-	-	3.7

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.97	2.3	3.1	< 0.05	0.41
Acenaphthylene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	mg/kg	0.1	MCERTS	0.28	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	mg/kg	0.1	MCERTS	3.2	0.38	1.1	< 0.10	0.82
Anthracene	mg/kg	0.1	MCERTS	0.87	0.10	< 0.10	< 0.10	0.12
Fluoranthene	mg/kg	0.1	MCERTS	5.3	< 0.10	0.74	< 0.10	1.3
Pyrene	mg/kg	0.1	MCERTS	4.0	< 0.10	0.73	< 0.10	1.2
Benzo(a)anthracene	mg/kg	0.1	MCERTS	2.5	< 0.10	0.86	< 0.10	0.95
Chrysene	mg/kg	0.05	MCERTS	2.4	< 0.05	0.79	< 0.05	0.91
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	2.1	< 0.10	1.2	< 0.10	1.2
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	2.2	< 0.10	0.80	< 0.10	1.3
Benzo(a)pyrene	mg/kg	0.1	MCERTS	2.0	< 0.10	0.66	< 0.10	1.2
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	1.3	< 0.10	0.47	< 0.10	1.1
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	0.27	< 0.10	< 0.10	< 0.10	0.28
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.4	< 0.05	0.52	< 0.05	1.3

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	28.6	2.73	11.0	< 1.60	12.2
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Analytical Report Number: 15-84915

Project / Site name: Burrow's Yard

Lab Sample Number	519810	519811	519812	519813	519814
Sample Reference	QTT01	QTT01	QTT01	QTT01B	QTT02
Sample Number	3	5	6	9	2
Depth (m)	1.00	2.50	3.60	2.50	0.45
Date Sampled	14/12/2015	14/12/2015	14/12/2015	14/12/2015	14/12/2015
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied

Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	37	8.5	-	-	9.5
Boron (water soluble)	mg/kg	0.2	MCERTS	1.7	1.5	-	-	0.9
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	2.1	< 0.2	-	-	0.7
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	17	20	-	-	33
Copper (aqua regia extractable)	mg/kg	1	MCERTS	210	4.2	-	-	120
Lead (aqua regia extractable)	mg/kg	1	MCERTS	730	9.8	-	-	130
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	0.6	-	-	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	58	21	-	-	46
Tin (aqua regia extractable)	mg/kg	1	MCERTS	440	< 1.0	-	-	91
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	1700	62	-	-	1000

Monoaromatics

Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	23	28	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	790	320	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	3200	2500	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	1000	1400	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH C10 - C40	mg/kg	10	MCERTS	77	570	-	-	26
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TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.1	MCERTS	< 0.1	0.5	0.5	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	6.2	3.3	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	14	25	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	200	660	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	8.0	180	670	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	24	14	75	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	34	410	1400	< 10	< 10

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	34	25	< 0.1	< 0.1
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	1.4	13	17	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	5.1	75	170	< 2.0	3.3
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	14	58	180	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	22	24	68	< 10	16
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	43	200	460	16	26

Chlorinated Solvents

Total Chlorinated Solvents	µg/kg	100	NONE	< 100	< 100	-	-	< 100
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Analytical Report Number: 15-84915

Project / Site name: Burrow's Yard

Lab Sample Number	519810	519811	519812	519813	519814
Sample Reference	QTT01	QTT01	QTT01	QTT01B	QTT02
Sample Number	3	5	6	9	2
Depth (m)	1.00	2.50	3.60	2.50	0.45
Date Sampled	14/12/2015	14/12/2015	14/12/2015	14/12/2015	14/12/2015
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied

Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
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VOCs

Chloromethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	< 1.0
Chloroethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	< 1.0
Bromomethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	< 1.0
Vinyl Chloride	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	< 1.0
Trichlorofluoromethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	< 1.0
1,1-Dichloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	< 1.0
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
2,2-Dichloropropane	µg/kg	1	NONE	< 1.0	< 1.0	-	-	< 1.0
Trichloromethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
1,1-Dichloropropene	µg/kg	1	NONE	< 1.0	< 1.0	-	-	< 1.0
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	< 1.0	-	-	< 1.0
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
Trichloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
Dibromomethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
Bromodichloromethane	µg/kg	1	NONE	< 1.0	< 1.0	-	-	< 1.0
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	< 1.0
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	24	-	-	< 1.0
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	< 1.0
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	< 1.0
Tetrachloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	< 1.0
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
1,1,1,2-Tetrachloroethane	µg/kg	1	NONE	< 1.0	< 1.0	-	-	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	800	-	-	< 1.0
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	3200	-	-	< 1.0
Styrene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
Tribromomethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
o-Xylene	µg/kg	1	MCERTS	< 1.0	1000	-	-	< 1.0
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
Isopropylbenzene	µg/kg	1	NONE	< 1.0	340	-	-	< 1.0
Bromobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	960	-	-	< 1.0
2-Chlorotoluene	µg/kg	1	NONE	< 1.0	< 1.0	-	-	< 1.0
4-Chlorotoluene	µg/kg	1	NONE	< 1.0	< 1.0	-	-	< 1.0
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	360	-	-	< 1.0
tert-Butylbenzene	µg/kg	1	NONE	< 1.0	< 1.0	-	-	< 1.0
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	1200	-	-	< 1.0
sec-Butylbenzene	µg/kg	1	NONE	< 1.0	120	-	-	< 1.0
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	< 1.0
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	89	-	-	< 1.0
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
Butylbenzene	µg/kg	1	NONE	< 1.0	390	-	-	< 1.0
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	< 1.0
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
Hexachlorobutadiene	µg/kg	1	NONE	< 1.0	< 1.0	-	-	< 1.0
1,2,3-Trichlorobenzene	µg/kg	1	NONE	< 1.0	< 1.0	-	-	< 1.0

Analytical Report Number: 15-84915

Project / Site name: Burrow's Yard

Lab Sample Number	519810	519811	519812	519813	519814
Sample Reference	QTT01	QTT01	QTT01	QTT01B	QTT02
Sample Number	3	5	6	9	2
Depth (m)	1.00	2.50	3.60	2.50	0.45
Date Sampled	14/12/2015	14/12/2015	14/12/2015	14/12/2015	14/12/2015
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied

Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
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PCBs by GC-MS

PCB Congener 28	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	-	< 0.001
PCB Congener 52	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	-	< 0.001
PCB Congener 101	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	-	< 0.001
PCB Congener 118	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	-	< 0.001
PCB Congener 138	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	-	< 0.001
PCB Congener 153	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	-	< 0.001
PCB Congener 180	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	-	< 0.001

Total PCBs by GC-MS

Total PCBs	mg/kg	0.007	MCERTS	< 0.007	< 0.007	-	-	< 0.007
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Analytical Report Number: 15-84915

Project / Site name: Burrow's Yard

Lab Sample Number	519815	519816	519817		
Sample Reference	QTT02	QTT03	QTT03		
Sample Number	3	1	2		
Depth (m)	1.50	0.50	1.00		
Date Sampled	14/12/2015	14/12/2015	14/12/2015		
Time Taken	None Supplied	None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	19	14
Total mass of sample received	kg	0.001	NONE	1.7	2.0

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-		
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected		

General Inorganics

pH	pH Units	N/A	MCERTS	7.5	8.3	8.0		
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1		
Water Soluble Sulphate (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.097	1.1	0.75		
Organic Matter	%	0.1	MCERTS	0.9	3.1	4.4		

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0		
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	0.32	0.33		
Acenaphthylene	mg/kg	0.1	MCERTS	< 0.10	0.30	< 0.10		
Acenaphthene	mg/kg	0.1	MCERTS	< 0.10	0.61	< 0.10		
Fluorene	mg/kg	0.1	MCERTS	< 0.10	1.2	< 0.10		
Phenanthrene	mg/kg	0.1	MCERTS	< 0.10	8.3	2.2		
Anthracene	mg/kg	0.1	MCERTS	< 0.10	2.3	0.48		
Fluoranthene	mg/kg	0.1	MCERTS	< 0.10	16	3.9		
Pyrene	mg/kg	0.1	MCERTS	< 0.10	10	2.9		
Benzo(a)anthracene	mg/kg	0.1	MCERTS	< 0.10	9.0	2.3		
Chrysene	mg/kg	0.05	MCERTS	< 0.05	8.3	2.0		
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	< 0.10	8.1	2.7		
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	< 0.10	4.2	1.6		
Benzo(a)pyrene	mg/kg	0.1	MCERTS	< 0.10	5.0	1.9		
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	< 0.10	3.3	1.2		
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	< 0.10	1.4	0.39		
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	3.0	1.7		

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	< 1.60	80.8	23.5		
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Analytical Report Number: 15-84915

Project / Site name: Burrow's Yard

Lab Sample Number	519815	519816	519817		
Sample Reference	QTT02	QTT03	QTT03		
Sample Number	3	1	2		
Depth (m)	1.50	0.50	1.00		
Date Sampled	14/12/2015	14/12/2015	14/12/2015		
Time Taken	None Supplied	None Supplied	None Supplied		

Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	26	53		
Boron (water soluble)	mg/kg	0.2	MCERTS	0.3	5.4	3.4		
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	1.2	0.5		
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	30	24	31		
Copper (aqua regia extractable)	mg/kg	1	MCERTS	11	160	480		
Lead (aqua regia extractable)	mg/kg	1	MCERTS	15	550	420		
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3		
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	22	26	43		
Tin (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-		
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	120	1800	1700		

Monoaromatics

Benzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
Toluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
p & m-xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
o-xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	< 1.0		

Petroleum Hydrocarbons

TPH C10 - C40	mg/kg	10	MCERTS	310	830	2300		
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1		
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1		
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1		
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	-	< 1.0		
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	85	-	3.5		
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	120	-	45		
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	16	-	730		
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	220	-	780		
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1		
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1		
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1		
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	-	< 1.0		
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	20	-	4.9		
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	59	-	46		
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	16	-	680		
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	95	-	730		

Chlorinated Solvents

Total Chlorinated Solvents	µg/kg	100	NONE	-	-	-		
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Analytical Report Number: 15-84915

Project / Site name: Burrow's Yard

Lab Sample Number				519815	519816	519817		
Sample Reference				QTT02	QTT03	QTT03		
Sample Number				3	1	2		
Depth (m)				1.50	0.50	1.00		
Date Sampled				14/12/2015	14/12/2015	14/12/2015		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	-	-		
Chloroethane	µg/kg	1	ISO 17025	-	-	-		
Bromomethane	µg/kg	1	ISO 17025	-	-	-		
Vinyl Chloride	µg/kg	1	ISO 17025	-	-	-		
Trichlorofluoromethane	µg/kg	1	ISO 17025	-	-	-		
1,1-Dichloroethene	µg/kg	1	MCERTS	-	-	-		
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	-	-		
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	-	-		
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-		
1,1-Dichloroethane	µg/kg	1	MCERTS	-	-	-		
2,2-Dichloropropane	µg/kg	1	NONE	-	-	-		
Trichloromethane	µg/kg	1	MCERTS	-	-	-		
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	-	-		
1,2-Dichloroethane	µg/kg	1	MCERTS	-	-	-		
1,1-Dichloropropene	µg/kg	1	NONE	-	-	-		
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	-	-		
Benzene	µg/kg	1	MCERTS	-	-	-		
Tetrachloromethane	µg/kg	1	MCERTS	-	-	-		
1,2-Dichloropropane	µg/kg	1	MCERTS	-	-	-		
Trichloroethene	µg/kg	1	MCERTS	-	-	-		
Dibromomethane	µg/kg	1	MCERTS	-	-	-		
Bromodichloromethane	µg/kg	1	NONE	-	-	-		
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	-		
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	-		
Toluene	µg/kg	1	MCERTS	-	-	-		
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	-	-		
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	-	-		
Dibromochloromethane	µg/kg	1	ISO 17025	-	-	-		
Tetrachloroethene	µg/kg	1	MCERTS	-	-	-		
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	-	-		
Chlorobenzene	µg/kg	1	MCERTS	-	-	-		
1,1,1,2-Tetrachloroethane	µg/kg	1	NONE	-	-	-		
Ethylbenzene	µg/kg	1	MCERTS	-	-	-		
p & m-Xylene	µg/kg	1	MCERTS	-	-	-		
Styrene	µg/kg	1	MCERTS	-	-	-		
Tribromomethane	µg/kg	1	MCERTS	-	-	-		
o-Xylene	µg/kg	1	MCERTS	-	-	-		
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	-		
Isopropylbenzene	µg/kg	1	NONE	-	-	-		
Bromobenzene	µg/kg	1	MCERTS	-	-	-		
n-Propylbenzene	µg/kg	1	ISO 17025	-	-	-		
2-Chlorotoluene	µg/kg	1	NONE	-	-	-		
4-Chlorotoluene	µg/kg	1	NONE	-	-	-		
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	-		
tert-Butylbenzene	µg/kg	1	NONE	-	-	-		
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	-		
sec-Butylbenzene	µg/kg	1	NONE	-	-	-		
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	-	-		
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	-	-		
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	-	-		
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	-	-		
Butylbenzene	µg/kg	1	NONE	-	-	-		
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	-	-		
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	-	-		
Hexachlorobutadiene	µg/kg	1	NONE	-	-	-		
1,2,3-Trichlorobenzene	µg/kg	1	NONE	-	-	-		

Analytical Report Number: 15-84915

Project / Site name: Burrow's Yard

Lab Sample Number				519815	519816	519817		
Sample Reference				QTT02	QTT03	QTT03		
Sample Number				3	1	2		
Depth (m)				1.50	0.50	1.00		
Date Sampled				14/12/2015	14/12/2015	14/12/2015		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		
PCBs by GC-MS								
PCB Congener 28				mg/kg	0.001	MCERTS	-	-
PCB Congener 52				mg/kg	0.001	MCERTS	-	-
PCB Congener 101				mg/kg	0.001	MCERTS	-	-
PCB Congener 118				mg/kg	0.001	MCERTS	-	-
PCB Congener 138				mg/kg	0.001	MCERTS	-	-
PCB Congener 153				mg/kg	0.001	MCERTS	-	-
PCB Congener 180				mg/kg	0.001	MCERTS	-	-
Total PCBs by GC-MS								
Total PCBs				mg/kg	0.007	MCERTS	-	-



Analytical Report Number: 15-84915

Project / Site name: Burrow's Yard

Lab Sample Number	519824	519825	519826	519827	
Sample Reference	QTT01	QTT01B	QTT02	QTT03	
Sample Number	8	10	6	4	
Depth (m)	3.50	3.70	4.00	2.00	
Date Sampled	14/12/2015	14/12/2015	14/12/2015	14/12/2015	
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status		

General Inorganics

pH	pH Units	N/A	ISO 17025	U/S**	6.9	7.0	7.1	
Total Cyanide	µg/l	10	ISO 17025	U/S**	< 10	< 10	< 10	
Sulphate as SO ₄	µg/l	45	ISO 17025	U/S**	20200	268000	506000	
Total Organic Carbon (TOC)	mg/l	0.1	ISO 17025	129	27.9	56.4	20.6	
Hardness - Total	mgCaCO ₃ /l	1	ISO 17025	U/S**	452	506	861	

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	U/S**	66	< 10	24	
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Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	5830	8710	< 0.01	1600	
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	
Fluorene	µg/l	0.01	ISO 17025	< 0.01	744	< 0.01	< 0.01	
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	458	< 0.01	< 0.01	
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	96.0	< 0.01	< 0.01	
Pyrene	µg/l	0.01	ISO 17025	< 0.01	103	< 0.01	< 0.01	
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	
Dibenz(a,h)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	
Benzo(ghi)perylene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	

Total PAH

Total EPA-16 PAHs	µg/l	0.16	NONE	5830	10100	< 0.16	1600	
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Analytical Report Number: 15-84915

Project / Site name: Burrow's Yard

Lab Sample Number	519824	519825	519826	519827	
Sample Reference	QTT01	QTT01B	QTT02	QTT03	
Sample Number	8	10	6	4	
Depth (m)	3.50	3.70	4.00	2.00	
Date Sampled	14/12/2015	14/12/2015	14/12/2015	14/12/2015	
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status		

Heavy Metals / Metalloids

Arsenic (dissolved)	µg/l	0.15	ISO 17025	U/S**	25.0	28.7	29.6	
Boron (dissolved)	µg/l	10	ISO 17025	U/S**	480	220	670	
Cadmium (dissolved)	µg/l	0.02	ISO 17025	U/S**	< 0.02	0.09	0.08	
Chromium (dissolved)	µg/l	0.2	ISO 17025	U/S**	< 0.2	0.6	0.4	
Copper (dissolved)	µg/l	0.5	ISO 17025	U/S**	6.0	9.2	16	
Lead (dissolved)	µg/l	0.2	ISO 17025	U/S**	3.2	11	13	
Mercury (dissolved)	µg/l	0.05	ISO 17025	U/S**	< 0.05	< 0.05	< 0.05	
Nickel (dissolved)	µg/l	0.5	ISO 17025	U/S**	1.4	6.1	6.8	
Tin (dissolved)	µg/l	0.2	ISO 17025	U/S**	< 0.20	< 0.20	< 0.20	
Zinc (dissolved)	µg/l	0.5	ISO 17025	U/S**	5.1	180	32	

Calcium (dissolved)	mg/l	0.012	ISO 17025	U/S**	140	150	310	
Magnesium (dissolved)	mg/l	0.005	ISO 17025	U/S**	24	30	23	

Monoaromatics

Benzene	µg/l	1	ISO 17025	19400	< 1.0	< 1.0	< 1.0	
Toluene	µg/l	1	ISO 17025	16900	< 1.0	< 1.0	< 1.0	
Ethylbenzene	µg/l	1	ISO 17025	121000	18800	< 1.0	< 1.0	
p & m-xylene	µg/l	1	ISO 17025	183000	60500	< 1.0	< 1.0	
o-xylene	µg/l	1	ISO 17025	167000	19200	< 1.0	< 1.0	
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	

Petroleum Hydrocarbons

TPH1 (C10 - C40)	µg/l	10	NONE	3000000	4800000	4200000	550000	
TPH-CWG - Aliphatic >C5 - C6	µg/l	10	NONE	48000	990	< 10	< 10	
TPH-CWG - Aliphatic >C6 - C8	µg/l	10	NONE	4400000	120000	440	< 10	
TPH-CWG - Aliphatic >C8 - C10	µg/l	10	NONE	2400000	340000	46000	< 10	
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	460000	660000	< 10	93000	
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	960000	2100000	2400000	220000	
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	650000	1200000	1400000	110000	
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	43000	9900	< 10	< 10	
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	8900000*	4400000*	3800000	430000	
TPH-CWG - Aromatic >C5 - C7	µg/l	10	NONE	19000	< 10	< 10	< 10	
TPH-CWG - Aromatic >C7 - C8	µg/l	10	NONE	17000	< 10	< 10	< 10	
TPH-CWG - Aromatic >C8 - C10	µg/l	10	NONE	1500000	440000	10000	< 10	
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	610000	550000	420000	73000	
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	310000	370000	490000	49000	
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10	
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	2400000*	1400000*	920000	120000	

Chlorinated Solvents

Total Chlorinated Solvents	µg/l	50	NONE	< 50.0	< 50.0	< 50.0	< 50.0	
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