CONCEPT LIFE SCIENCES
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Concept Life Sciences

Certificate of Analysis

Hadfield House
Hadfield Street
Cornbrook
Manchester
M16 9FE
Tel : 0161 874 2400
Fax : 0161 874 2468

Report Number: 821695-1 Report B

Date of Report: 28-May-2019

Customer: Black Rock Environmental Associates Ltd
16 Buckingham Cresent
Clayton
Bradford
West Yorkshire
BD14 6EJ

Customer Contact: Mr Hywel Wilcox

Customer Job Reference:

Customer Site Reference: JP LAND RECOVERY WARMFIELD CUTTING WAKEFIELD

Date Job Received at Concept: 13-May-2019

Date Analysis Started: 23-May-2019

Date Analysis Completed: 28-May-2019

The results reported relate to samples received in the laboratory and may not be representative of a whole batch.

Customers are responsible for information provided where, if incorrect, it could affect the validity of the results.

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

This report should not be reproduced except in full without the written approval of the laboratory

Tests covered by this certificate were conducted in accordance with Concept Life Sciences SOPs

All results have been reviewed in accordance with QMSection 15 of the Concept Life Sciences, Analytical Services Quality Manual

UKAS TESTING
1549

Report checked
and authorised by :
Aneta Dybek-Echtermeyer
Customer Service Advisor

Issued by :
Aneta Dybek-Echtermeyer
Customer Service Advisor

Concept Reference: 821695
Project Site: JP LAND RECOVERY WARMFIELD CUTTING WAKEFIELD
Customer Reference:

Water Analysed as Water
Miscellaneous

Concept Reference	**821695 002**
Customer Sample Reference	**STANDING BRIDGE ZONE**
Date Sampled	**09-MAY-2019**
Sample Received (ml)	**2000**

Determinand	Method	Test Sample	LOD	Units	
Phenols(Mono)	T4	AR	0.1	mg/l	<0.1
Ammonia expressed as NH4	T4	AR	0.06	mg/l	**0.06**
Suspended Solids (Total)	T2	AR	10	mg/l	**20**

Concept Reference: 821695
Project Site: JP LAND RECOVERY WARMFIELD CUTTING WAKEFIELD
Customer Reference:

Water Analysed as Water
TPH (CWG)

Concept Reference	**821695 002**
Customer Sample Reference	**STANDING BRIDGE ZONE**
Date Sampled	**09-MAY-2019**
Sample Received (ml)	**2000**

Determinand	Method	Test Sample	LOD	Units	
TPH (C5-C6 aliphatic)	T215	AR	0.010	mg/l	<0.010
TPH (C6-C8 aliphatic)	T215	AR	0.010	mg/l	<0.010
TPH (C8-C10 aliphatic)	T215	AR	0.010	mg/l	<0.010
TPH DW(C10-C12 aliphatic)	T81	AR	0.01	mg/l	<0.02(100,13)
TPH DW(C12-C16 aliphatic)	T81	AR	0.01	mg/l	**0.02(13)**
TPH DW(C16-C21 aliphatic)	T81	AR	0.01	mg/l	<0.02(100,13)
TPH DW(C21-C35 aliphatic)	T81	AR	0.01	mg/l	<0.02(100,13)
TPH (C6-C7 aromatic)	T215	AR	0.010	mg/l	<0.010
TPH (C7-C8 aromatic)	T215	AR	0.010	mg/l	<0.010
TPH (C8-C10 aromatic)	T215	AR	0.010	mg/l	<0.010
TPH DW(C10-C12 aromatic)	T81	AR	0.01	mg/l	<0.02(13,100)
TPH DW(C12-C16 aromatic)	T81	AR	0.01	mg/l	<0.02(100,13)
TPH DW(C16-C21 aromatic)	T81	AR	0.01	mg/l	<0.02(100,13)
TPH DW(C21-C35 aromatic)	T81	AR	0.01	mg/l	<0.02(13,100)

Concept Reference: 821695
Project Site: JP LAND RECOVERY WARMFIELD CUTTING WAKEFIELD
Customer Reference:

Water Analysed as Water
Total and Speciated USEPA16 PAH

Concept Reference	**821695 002**
Customer Sample Reference	**STANDING BRIDGE ZONE**
Date Sampled	**09-MAY-2019**
Sample Received (ml)	**2000**

Determinand	Method	Test Sample	LOD	Units	
Naphthalene	T149	AR	0.01	µg/l	**0.20**(13)
Acenaphthylene	T149	AR	0.01	µg/l	<0.02(13,100)
Acenaphthene	T149	AR	0.01	µg/l	**0.05**(13)
Fluorene	T149	AR	0.01	µg/l	**0.07**(13)
Phenanthrene	T149	AR	0.01	µg/l	**0.17**(13)
Anthracene	T149	AR	0.01	µg/l	**0.05**(13)
Fluoranthene	T149	AR	0.01	µg/l	**0.33**(13)
Pyrene	T149	AR	0.01	µg/l	**0.30**(13)
Benzo(a)Anthracene	T149	AR	0.01	µg/l	**0.16**(13)
Chrysene	T149	AR	0.01	µg/l	**0.18**(13)
Benzo(b/k)Fluoranthene	T149	AR	0.01	µg/l	**0.34**(13)
Benzo(a)Pyrene	T149	AR	0.01	µg/l	**0.16**(13)
Indeno(123-cd)Pyrene	T149	AR	0.01	µg/l	**0.09**(13)
Dibenzo(ah)Anthracene	T149	AR	0.01	µg/l	**0.03**(13)
Benzo(ghi)Perylene	T149	AR	0.01	µg/l	**0.11**(13)
PAH(total)	T149	AR	0.01	µg/l	**2.2**(13)

Index to symbols used in 821695-1 Report B

Value	Description
AR	As Received
F	Filtered
100	LOD determined by sample aliquot used for analysis
13	Results have been blank corrected.
U	Analysis is UKAS accredited
N	Analysis is not UKAS accredited

Notes

Report B to include sample 002 only.

Method Index

Value	Description
T2	Grav
T149	GC/MS (SIR)
T81	GC/FID (LV)
T686	Discrete Analyser
T281	ICP/MS (Filtered)
T4	Colorimetry
T85	Calc
T215	GC/MS (Headspace)(LV)

Accreditation Summary

Determinand	Method	Test Sample	LOD	Units	Symbol	Concept References
TPH (C5-C6 aliphatic)	T215	AR	0.010	mg/l	N	002
TPH (C6-C8 aliphatic)	T215	AR	0.010	mg/l	N	002
TPH (C8-C10 aliphatic)	T215	AR	0.010	mg/l	N	002
TPH DW(C10-C12 aliphatic)	T81	AR	0.01	mg/l	N	002
TPH DW(C12-C16 aliphatic)	T81	AR	0.01	mg/l	N	002
TPH DW(C16-C21 aliphatic)	T81	AR	0.01	mg/l	N	002
TPH DW(C21-C35 aliphatic)	T81	AR	0.01	mg/l	N	002

Determinand	Method	Test Sample	LOD	Units	Symbol	Concept References
TPH (C6-C7 aromatic)	T215	AR	0.010	mg/l	N	002
TPH (C7-C8 aromatic)	T215	AR	0.010	mg/l	N	002
TPH (C8-C10 aromatic)	T215	AR	0.010	mg/l	N	002
TPH DW(C10-C12 aromatic)	T81	AR	0.01	mg/l	N	002
TPH DW(C12-C16 aromatic)	T81	AR	0.01	mg/l	N	002
TPH DW(C16-C21 aromatic)	T81	AR	0.01	mg/l	N	002
TPH DW(C21-C35 aromatic)	T81	AR	0.01	mg/l	N	002
Naphthalene	T149	AR	0.01	µg/l	U	002
Acenaphthylene	T149	AR	0.01	µg/l	U	002
Acenaphthene	T149	AR	0.01	µg/l	U	002
Fluorene	T149	AR	0.01	µg/l	U	002
Phenanthrene	T149	AR	0.01	µg/l	U	002
Anthracene	T149	AR	0.01	µg/l	U	002
Fluoranthene	T149	AR	0.01	µg/l	U	002
Pyrene	T149	AR	0.01	µg/l	U	002
Benzo(a)Anthracene	T149	AR	0.01	µg/l	U	002
Chrysene	T149	AR	0.01	µg/l	U	002
Benzo(b/k)Fluoranthene	T149	AR	0.01	µg/l	U	002
Benzo(a)Pyrene	T149	AR	0.01	µg/l	U	002
Indeno(123-cd)Pyrene	T149	AR	0.01	µg/l	U	002
Dibenzo(ah)Anthracene	T149	AR	0.01	µg/l	U	002
Benzo(ghi)Perylene	T149	AR	0.01	µg/l	U	002
PAH(total)	T149	AR	0.01	µg/l	U	002
Phenols(Mono)	T4	AR	0.1	mg/l	U	002
Ammonia expressed as NH4	T4	AR	0.06	mg/l	U	002
Suspended Solids (Total)	T2	AR	10	mg/l	N	002