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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 C

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



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

	821695 003						
	e Reference	TRACK DRAINAGE OUTLET					
Date Sampled 09-MAY-2019							
	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	0.07		
Suspended Solids (Total)	T2	AR	10	mg/l	<10		

Concept Reference: 821695

Project Site: JP LAND RECOVERY WARMFIELD CUTTING WAKEFIELD

Customer Reference:

Water Analysed as Water

TPH (CWG)

(••)						
	t Reference	821695 003 TRACK DRAINAGE OUTLET 09-MAY-2019				
	Reference					
	te Sampled					
	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(13,100)	
TPH DW(C12-C16 aliphatic)	T81	AR	0.01	mg/l	< 0.02(13,100)	
TPH DW(C16-C21 aliphatic)	T81	AR	0.01	mg/l	< 0.02(13,100)	
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(100,13)	

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 003 TRACK DRAINAGE OUTLET **Customer Sample Reference** Date Sampled 09-MAY-2019 Sample Received (ml) 2000 Determinand Method LOD Units < 0.02(13,100) T149 0.01 AR Naphthalene μg/l <0.02(13,100) T149 AR 0.01 Acenaphthylene μg/l <0.02(100,13) T149 0.01 Acenaphthene AR μg/l T149 AR 0.01 < 0.02(100,13) Fluorene μg/l 0.03(13) Phenanthrene T149 AR 0.01 μg/l < 0.02(100,13) T149 0.01 Anthracene AR μg/l <0.02(13,100) Fluoranthene T149 AR 0.01 μg/l <0.02(13,100) Pyrene T149 0.01 AR μg/l <0.02(100,13) Benzo(a)Anthracene T149 0.01 μg/l T149 < 0.02(100,13) 0.01 Chrysene AR μg/l T149 < 0.02(13,100) Benzo(b/k)Fluoranthene AR 0.01 μg/l <0.02(100,13) Benzo(a)Pyrene T149 AR 0.01 μg/l < 0.02(100,13) Indeno(123-cd)Pyrene T149 AR 0.01 µg/l <0.02(13,100) Dibenzo(ah)Anthracene T149 0.01 μg/l

0.01

0.01

μg/l

T149

T149

Benzo(ghi)Perylene

PAH(total)

## Index to symbols used in 821695-1 Report C

< 0.02(13,100)

0.03(13)

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 C to include sample 003 only.

### **Method Index**

Value	Description					
T281	ICP/MS (Filtered)					
T4	Colorimetry					
T85	Calc					
T149	GC/MS (SIR)					
T686	Discrete Analyser					
T2	Grav					
T81	GC/FID (LV)					
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	003
TPH (C6-C8 aliphatic)	T215	AR	0.010	mg/l	N	003
TPH (C8-C10 aliphatic)	T215	AR	0.010	mg/l	N	003
TPH DW(C10-C12 aliphatic)	T81	AR	0.01	mg/l	N	003
TPH DW(C12-C16 aliphatic)	T81	AR	0.01	mg/l	N	003
TPH DW(C16-C21 aliphatic)	T81	AR	0.01	mg/l	N	003
TPH DW(C21-C35 aliphatic)	T81	AR	0.01	mg/l	N	003

Determinand	Method	Test Sample	LOD	Units	Symbol	Concept References
TPH (C6-C7 aromatic)	T215	AR	0.010	mg/l	N	003
TPH (C7-C8 aromatic)	T215	AR	0.010	mg/l	N	003
TPH (C8-C10 aromatic)	T215	AR	0.010	mg/l	N	003
TPH DW(C10-C12 aromatic)	T81	AR	0.01	mg/l	N	003
TPH DW(C12-C16 aromatic)	T81	AR	0.01	mg/l	N	003
TPH DW(C16-C21 aromatic)	T81	AR	0.01	mg/l	N	003
TPH DW(C21-C35 aromatic)	T81	AR	0.01	mg/l	N	003
Naphthalene	T149	AR	0.01	μg/l	U	003
Acenaphthylene	T149	AR	0.01	μg/l	U	003
Acenaphthene	T149	AR	0.01	μg/l	U	003
Fluorene	T149	AR	0.01	μg/l	U	003
Phenanthrene	T149	AR	0.01	μg/l	U	003
Anthracene	T149	AR	0.01	μg/l	U	003
Fluoranthene	T149	AR	0.01	μg/l	U	003
Pyrene	T149	AR	0.01	μg/l	U	003
Benzo(a)Anthracene	T149	AR	0.01	μg/l	U	003
Chrysene	T149	AR	0.01	μg/l	U	003
Benzo(b/k)Fluoranthene	T149	AR	0.01	μg/l	U	003
Benzo(a)Pyrene	T149	AR	0.01	μg/l	U	003
Indeno(123-cd)Pyrene	T149	AR	0.01	μg/l	U	003
Dibenzo(ah)Anthracene	T149	AR	0.01	μg/l	U	003
Benzo(ghi)Perylene	T149	AR	0.01	μg/l	U	003
PAH(total)	T149	AR	0.01	μg/l	U	003
Phenols(Mono)	T4	AR	0.1	mg/l	U	003
Ammonia expressed as NH4	T4	AR	0.06	mg/l	U	003
Suspended Solids (Total)	T2	AR	10	mg/l	N	003