



CONCEPT LIFE SCIENCES  
DELIVERING SCIENCE

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Concept Life Sciences Analytical & Development  
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# Concept Life Sciences

## Certificate of Analysis

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**Report Number:** 821695-1 Report A

**Date of Report:** 28-May-2019

**Customer:** Black Rock Environmental Associates Ltd  
16 Buckingham Crescent  
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



1549

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

Issued by :  
Aneta Dybek-Echtermeyer  
Customer Service Advisor

<b>Concept Reference:</b> 821695 <b>Project Site:</b> JP LAND RECOVERY WARMFIELD CUTTING WAKEFIELD <b>Customer Reference:</b>					
<b>Water</b> Analysed as Water <b>Miscellaneous</b>					
<b>Concept Reference</b>					<b>821695 001</b>
<b>Customer Sample Reference</b>					<b>SOUTH OF BRIDGE</b>
<b>Date Sampled</b>					<b>09-MAY-2019</b>
<b>Sample Received (ml)</b>					<b>2000</b>
<b>Determinand</b>	<b>Method</b>	<b>Test Sample</b>	<b>LOD</b>	<b>Units</b>	
Phenols(Mono)	T4	AR	0.1	mg/l	<0.1
Ammonia expressed as NH4	T4	AR	0.06	mg/l	<b>0.26</b>
Suspended Solids (Total)	T2	AR	10	mg/l	<b>11</b>

<b>Concept Reference:</b> 821695 <b>Project Site:</b> JP LAND RECOVERY WARMFIELD CUTTING WAKEFIELD <b>Customer Reference:</b>					
<b>Water</b> Analysed as Water <b>TPH (CWG)</b>					
<b>Concept Reference</b>					<b>821695 001</b>
<b>Customer Sample Reference</b>					<b>SOUTH OF BRIDGE</b>
<b>Date Sampled</b>					<b>09-MAY-2019</b>
<b>Sample Received (ml)</b>					<b>2000</b>
<b>Determinand</b>	<b>Method</b>	<b>Test Sample</b>	<b>LOD</b>	<b>Units</b>	
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 <sup>(13,100)</sup>
TPH DW(C12-C16 aliphatic)	T81	AR	0.01	mg/l	<0.02 <sup>(100,13)</sup>
TPH DW(C16-C21 aliphatic)	T81	AR	0.01	mg/l	<0.02 <sup>(100,13)</sup>
TPH DW(C21-C35 aliphatic)	T81	AR	0.01	mg/l	<b>0.02<sup>(13)</sup></b>
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 <sup>(13,100)</sup>
TPH DW(C12-C16 aromatic)	T81	AR	0.01	mg/l	<b>0.02<sup>(13)</sup></b>
TPH DW(C16-C21 aromatic)	T81	AR	0.01	mg/l	<b>0.02<sup>(13)</sup></b>
TPH DW(C21-C35 aromatic)	T81	AR	0.01	mg/l	<b>0.03<sup>(13)</sup></b>

Concept Reference: 821695					
Project Site: JP LAND RECOVERY WARMFIELD CUTTING WAKEFIELD					
Customer Reference:					
Water Analysed as Water					
<b>Total and Speciated USEPA16 PAH</b>					
Concept Reference					821695 001
Customer Sample Reference					SOUTH OF BRIDGE
Date Sampled					09-MAY-2019
Sample Received (ml)					2000
Determinand	Method	Test Sample	LOD	Units	
Naphthalene	T149	AR	0.01	µg/l	0.09 <sup>(13)</sup>
Acenaphthylene	T149	AR	0.01	µg/l	<0.02 <sup>(100,13)</sup>
Acenaphthene	T149	AR	0.01	µg/l	0.06 <sup>(13)</sup>
Fluorene	T149	AR	0.01	µg/l	0.06 <sup>(13)</sup>
Phenanthrene	T149	AR	0.01	µg/l	0.06 <sup>(13)</sup>
Anthracene	T149	AR	0.01	µg/l	<0.02 <sup>(13,100)</sup>
Fluoranthene	T149	AR	0.01	µg/l	0.04 <sup>(13)</sup>
Pyrene	T149	AR	0.01	µg/l	0.04 <sup>(13)</sup>
Benzo(a)Anthracene	T149	AR	0.01	µg/l	<0.02 <sup>(100,13)</sup>
Chrysene	T149	AR	0.01	µg/l	<0.02 <sup>(100,13)</sup>
Benzo(b/k)Fluoranthene	T149	AR	0.01	µg/l	0.04 <sup>(13)</sup>
Benzo(a)Pyrene	T149	AR	0.01	µg/l	<0.02 <sup>(100,13)</sup>
Indeno(123-cd)Pyrene	T149	AR	0.01	µg/l	<0.02 <sup>(100,13)</sup>
Dibenzo(ah)Anthracene	T149	AR	0.01	µg/l	<0.02 <sup>(13,100)</sup>
Benzo(ghi)Perylene	T149	AR	0.01	µg/l	<0.02 <sup>(13,100)</sup>
PAH(total)	T149	AR	0.01	µg/l	0.30 <sup>(13)</sup>

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

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

## Notes

Report A to include sample 001 only.

## Method Index

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

## Accreditation Summary

Determinand	Method	Test Sample	LOD	Units	Symbol	Concept References
TPH (C5-C6 aliphatic)	T215	AR	0.010	mg/l	N	001
TPH (C6-C8 aliphatic)	T215	AR	0.010	mg/l	N	001
TPH (C8-C10 aliphatic)	T215	AR	0.010	mg/l	N	001
TPH DW(C10-C12 aliphatic)	T81	AR	0.01	mg/l	N	001
TPH DW(C12-C16 aliphatic)	T81	AR	0.01	mg/l	N	001
TPH DW(C16-C21 aliphatic)	T81	AR	0.01	mg/l	N	001
TPH DW(C21-C35 aliphatic)	T81	AR	0.01	mg/l	N	001
TPH (C6-C7 aromatic)	T215	AR	0.010	mg/l	N	001

Determinand	Method	Test Sample	LOD	Units	Symbol	Concept References
TPH (C7-C8 aromatic)	T215	AR	0.010	mg/l	N	001
TPH (C8-C10 aromatic)	T215	AR	0.010	mg/l	N	001
TPH DW(C10-C12 aromatic)	T81	AR	0.01	mg/l	N	001
TPH DW(C12-C16 aromatic)	T81	AR	0.01	mg/l	N	001
TPH DW(C16-C21 aromatic)	T81	AR	0.01	mg/l	N	001
TPH DW(C21-C35 aromatic)	T81	AR	0.01	mg/l	N	001
Naphthalene	T149	AR	0.01	µg/l	U	001
Acenaphthylene	T149	AR	0.01	µg/l	U	001
Acenaphthene	T149	AR	0.01	µg/l	U	001
Fluorene	T149	AR	0.01	µg/l	U	001
Phenanthrene	T149	AR	0.01	µg/l	U	001
Anthracene	T149	AR	0.01	µg/l	U	001
Fluoranthene	T149	AR	0.01	µg/l	U	001
Pyrene	T149	AR	0.01	µg/l	U	001
Benzo(a)Anthracene	T149	AR	0.01	µg/l	U	001
Chrysene	T149	AR	0.01	µg/l	U	001
Benzo(b/k)Fluoranthene	T149	AR	0.01	µg/l	U	001
Benzo(a)Pyrene	T149	AR	0.01	µg/l	U	001
Indeno(123-cd)Pyrene	T149	AR	0.01	µg/l	U	001
Dibenzo(ah)Anthracene	T149	AR	0.01	µg/l	U	001
Benzo(ghi)Perylene	T149	AR	0.01	µg/l	U	001
PAH(total)	T149	AR	0.01	µg/l	U	001
Phenols(Mono)	T4	AR	0.1	mg/l	U	001
Ammonia expressed as NH4	T4	AR	0.06	mg/l	U	001
Suspended Solids (Total)	T2	AR	10	mg/l	N	001

