



CONCEPT LIFE SCIENCES  
DELIVERING SCIENCE

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Concept Life Sciences Analytical & Development  
Services Limited registered in England and  
Wales (No 2514788)

# Concept Life Sciences

## Certificate of Analysis

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**Report Number:** 821389-1

**Date of Report:** 17-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  
NARHISH

**Date Job Received at Concept:** 13-May-2019

**Date Analysis Started:** 14-May-2019

**Date Analysis Completed:** 17-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 :  
Jack Nagy  
Customer Service Advisor

Issued by :  
Jack Nagy  
Customer Service Advisor

<b>Concept Reference:</b> 821389					
<b>Project Site:</b> JP LAND RECOVERY WARMFIELD NARHISH					
<b>Customer Reference:</b>					
<b>Soil</b> Analysed as Soil					
<b>Miscellaneous</b>					
<b>Concept Reference</b>					<b>821389 001</b>
<b>Customer Sample Reference</b>					<b>RAILWAY CUTTING FRANK</b>
<b>Date Sampled</b>					<b>09-MAY-2019</b>
<b>Matrix Class</b>					<b>Sandy Soil</b>
<b>Determinand</b>	<b>Method</b>	<b>Test Sample</b>	<b>LOD</b>	<b>Units</b>	
Cyanide(free)	T4	AR	1	mg/kg	<1
pH	T7	A40			<b>6.8</b>
Phenols(Mono)	T4	AR	1	mg/kg	<1
Chromium VI	T6	A40	1	mg/kg	<1
Arsenic	T6	M40	2	mg/kg	<b>12</b>
Cadmium	T6	M40	1	mg/kg	<1
Chromium	T6	M40	1	mg/kg	<b>25</b>
Copper	T6	M40	1	mg/kg	<b>97</b>
Mercury	T6	M40	1	mg/kg	<1
Nickel	T6	M40	1	mg/kg	<b>28</b>
Lead	T6	M40	1	mg/kg	<b>61</b>
Selenium	T6	M40	3	mg/kg	<3
Zinc	T6	M40	1	mg/kg	<b>71</b>
Chromium (trivalent)	T85	A40	2	mg/kg	<b>25</b>

<b>Concept Reference:</b> 821389					
<b>Project Site:</b> JP LAND RECOVERY WARMFIELD NARHISH					
<b>Customer Reference:</b>					
<b>Soil</b> Analysed as Soil					
<b>MCERTS Preparation</b>					
<b>Concept Reference</b>					<b>821389 001</b>
<b>Customer Sample Reference</b>					<b>RAILWAY CUTTING FRANK</b>
<b>Date Sampled</b>					<b>09-MAY-2019</b>
<b>Matrix Class</b>					<b>Sandy Soil</b>
<b>Determinand</b>	<b>Method</b>	<b>Test Sample</b>	<b>LOD</b>	<b>Units</b>	
Moisture @105C	T162	AR	0.1	%	<b>11</b>
Retained on 10mm sieve	T2	M40	0.1	%	<0.1



## Index to symbols used in 821389-1

Value	Description
M105	Analysis conducted on an "as received" aliquot. Results are reported on a dry weight basis where moisture content was determined by assisted drying of sample at 105C
AR	As Received
A40	Assisted dried < 40C
M40	Analysis conducted on sample assisted dried at no more than 40C. Results are reported on a dry weight basis.
13	Results have been blank corrected.
M	Analysis is MCERTS accredited
U	Analysis is UKAS accredited
N	Analysis is not UKAS accredited

## Method Index

Value	Description
T7	Probe
T2	Grav
T85	Calc
T8	GC/FID
T6	ICP/OES
T207	GC/MS (MCERTS)
T209	GC/MS (Head Space)(MCERTS)
T4	Colorimetry
T162	Grav (1 Dec) (105 C)
T206	GC/FID (MCERTS)

## Accreditation Summary

Determinand	Method	Test Sample	LOD	Units	Symbol	Concept References
Cyanide(free)	T4	AR	1	mg/kg	U	001
pH	T7	A40			M	001
Phenols(Mono)	T4	AR	1	mg/kg	U	001
Chromium VI	T6	A40	1	mg/kg	N	001
Arsenic	T6	M40	2	mg/kg	M	001
Cadmium	T6	M40	1	mg/kg	M	001
Chromium	T6	M40	1	mg/kg	M	001
Copper	T6	M40	1	mg/kg	M	001
Mercury	T6	M40	1	mg/kg	M	001
Nickel	T6	M40	1	mg/kg	M	001
Lead	T6	M40	1	mg/kg	M	001
Selenium	T6	M40	3	mg/kg	M	001
Zinc	T6	M40	1	mg/kg	M	001
Chromium (trivalent)	T85	A40	2	mg/kg	N	001
Benzene	T209	M105	10	µg/kg	M	001
Toluene	T209	M105	10	µg/kg	M	001
EthylBenzene	T209	M105	10	µg/kg	M	001
Methyl tert-Butyl Ether	T209	M105	10	µg/kg	M	001
O Xylene	T209	M105	10	µg/kg	M	001
M/P Xylene	T209	M105	10	µg/kg	M	001
TPH (C5-C6 aliphatic)	T209	M105	0.100	mg/kg	N	001
TPH (C6-C8 aliphatic)	T209	M105	0.10	mg/kg	N	001
TPH (C8-C10 aliphatic)	T209	M105	0.10	mg/kg	N	001
TPH (C10-C12 aliphatic)	T206	M105	1	mg/kg	N	001
TPH (C12-C16 aliphatic)	T206	M105	2	mg/kg	M	001
TPH (C16-C21 aliphatic)	T206	M105	1	mg/kg	M	001
TPH (C21-C35 aliphatic)	T206	M105	4	mg/kg	M	001
TPH (C35-C44 aliphatic)	T8	M105	1	mg/kg	N	001
TPH (Aliphatic) total	T85	M105			N	001
TPH (C6-C7 aromatic)	T209	M105	0.10	mg/kg	N	001
TPH (C7-C8 aromatic)	T209	M105	0.10	mg/kg	N	001
TPH (C8-C10 aromatic)	T209	M105	0.10	mg/kg	N	001
TPH (C10-C12 aromatic)	T206	M105	1	mg/kg	M	001
TPH (C12-C16 aromatic)	T206	M105	1	mg/kg	M	001
TPH (C16-C21 aromatic)	T206	M105	1	mg/kg	M	001
TPH (C21-C35 aromatic)	T206	M105	1	mg/kg	M	001

Determinand	Method	Test Sample	LOD	Units	Symbol	Concept References
TPH (C35-C44 aromatic)	T8	M105	1	mg/kg	N	001
TPH (Aromatic) total	T85	M105			N	001
TPH (Aliphatic+Aromatic) (sum)	T85	M105			N	001
Naphthalene	T207	M105	0.1	mg/kg	M	001
Acenaphthylene	T207	M105	0.1	mg/kg	U	001
Acenaphthene	T207	M105	0.1	mg/kg	M	001
Fluorene	T207	M105	0.1	mg/kg	M	001
Phenanthrene	T207	M105	0.1	mg/kg	M	001
Anthracene	T207	M105	0.1	mg/kg	U	001
Fluoranthene	T207	M105	0.1	mg/kg	M	001
Pyrene	T207	M105	0.1	mg/kg	M	001
Benzo(a)Anthracene	T207	M105	0.1	mg/kg	M	001
Chrysene	T207	M105	0.1	mg/kg	M	001
Benzo(b/k)Fluoranthene	T207	M105	0.1	mg/kg	M	001
Benzo(a)Pyrene	T207	M105	0.1	mg/kg	M	001
Indeno(123-cd)Pyrene	T207	M105	0.1	mg/kg	M	001
Dibenzo(ah)Anthracene	T207	M105	0.1	mg/kg	M	001
Benzo(ghi)Perylene	T207	M105	0.1	mg/kg	M	001
PAH(total)	T207	M105	0.1	mg/kg	U	001
Moisture @ 105C	T162	AR	0.1	%	N	001
Retained on 10mm sieve	T2	M40	0.1	%	N	001

