

Our Ref AMP/14862CO/5/LMA

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26 October 2018

London Borough of Hackney
Hackney Service Centre
1 Hillman Street
Hackney
London
E8 1DY

For the attention of Mr Steven Pye, Pollution Control Officer

By Email only –
steven.pye@hackney.gov.uk

Dear Steven

**STONE STUDIOS, 80 TO 84 & 88 WALLIS ROAD, HACKNEY WICK E9 5LN
- RADIELLO CARTRIDGE AIR MONITORING FOR VOC & SVOC**

This letter reports the findings of the fifth round of ongoing air monitoring around the boundary of the above site by RSA Geotechnics Limited, at the request of Telford Homes PLC. The monitoring covers the period between 27 September and 5 October 2018.

This version 2 letter has been issued to correct a typographical error in the original letter report of 15 October [change in Section 3 from 2-(2,2-dimethylethyl)-4-methyl-furan to 2-(1,1-dimethylethyl)-4-methyl-furan], and to clarify labelling of samples.

1. Introduction

Earlier investigation of the site identified the potential for significant odour/vapour release during development. CFA piling works brought to surface hydrocarbon contaminated soils, as identified within the earlier site investigation. Some odours were reported, and odour/vapour issues were more pronounced during the recent bulk excavation phase for basement construction for Block A.

Air monitoring will be maintained for the duration of the groundworks by RSA Geotechnics Limited to assess concentrations of volatile organic compounds at the perimeter of the site during the bulk excavation works and enable the assessment of potential risks to off-site receptors. Radiello 130 passive diffusive sampling tubes have been installed at five locations around the perimeter of the site, to enable measurement of time weighted average concentrations of BTEX and VOC. A sixth monitoring point has recently been installed off-site, as discussed below. Monitoring locations are as illustrated on drawing number 14862G12/9.

Key volatile constituents of the contamination at the site were considered to be benzene and naphthalene, and these compounds have been adopted as markers for the initial assessment of contamination.

The EH40 Workplace Exposure Limit (WEL) for 8 hour time-weighted average (TWA) exposure for benzene of 1 ppm (3.25 mg/m³) has been adopted for initial assessment. In the absence of a short-term (15 minute) exposure limit (STEL) a value equivalent to three times the 8 hour TWA is commonly adopted (3 ppm).

There is no UK WEL screening value for naphthalene. However, the US Occupational Safety and Health Administration (OSHA) sets a Permissible Exposure limit (PEL) of 10 ppm (50 mg/m³) for naphthalene in workplace air (8 hour TWA). The National Institute for Occupational Safety and Health (NIOSH) 'immediately dangerous to life or health' (IDLH) screening value for naphthalene in air is 250 ppm.

2. Fieldwork

The fifth round of monitoring discussed in this report was undertaken over a seven day period between 27 September and 5 October 2018. No excavation works were in progress for the duration of the monitoring.

3. Laboratory Analysis

Cross reference between the laboratory test references and the sample locations is given in Table 3.

Table 3 – Laboratory reference and sample location summary	
Location	Laboratory sample reference
1	1412T
2	1409T
3	1408T
4	1407T
5	1406T
6	XS812

The laboratory analysis included suites of both VOCs and SVOCs. The results were calculated as time-weighted average concentrations.

Concentrations of VOCs including benzene were below the detection limit for the test method, of 1 µg/m³ (0.0003 ppm).

Naphthalene concentrations were recorded only at monitoring locations 4 and 5 (south western and north western boundaries) and ranged between 44 and 82 µg/m³ (0.008 to 0.015 ppm).

Concentrations were all well below the OSHA PEL value of 10 ppm for workplace exposure.

Some measurable concentrations for SVOC TIC (Tentatively Identified Compounds) were recorded. There are no UK screening values for the majority of these compounds. A maximum concentration of $60 \mu\text{g}/\text{m}^3$ was recorded for 1,2,3-trimethylbenzene; the EH40 WEL (8 hr TWA) for trimethylbenzenes (all isomers or mixtures) is 25 ppm or $125000 \mu\text{g}/\text{m}^3$, so the recorded concentration is considered very low.

The recently installed sixth location on the boundary of the Mossbourne Academy school premises approximately 100 m east of the site recorded concentrations of all analyses VOCs and SVOCs to be below the detection limit of the test method of $1 \mu\text{g}/\text{m}^3$. The only SVOC TIC compound recorded to be present at this location was 2-(1,1-dimethylethyl)-4-methyl-furan at $5 \mu\text{g}/\text{m}^3$. This compound was not recorded at any of the five monitoring points and is considered unrelated to the site.

4. Conclusions

Time-weighted average concentrations of benzene in the atmosphere were below the detection limit for the test method, of 0.0003 ppm, and well below the adopted initial screening value of 1 ppm.

The highest measured concentration of naphthalene of 0.015 ppm was considerably below the OSHA PEL of 10 ppm.

The above assessment is predominantly focussed on occupational exposure, given the immediate commercial site setting. Due to recent reports of vapour/odour further from the site, including the school approximately 100 m to the north east, the assessment is currently under revision, to provide an enhanced assessment of the potential impact to off-site receptors, and with a view to modifying site practices to reduce any impact to acceptable levels.

The air monitoring indicates that there are no time-weighted average exceedances of workplace screening values for benzene and naphthalene at the site perimeter. The recent round of monitoring has identified no significant concentrations of VOC/SVOC to be present at the school boundary.

Monitoring will continue for the duration of the earthworks on site and a revised assessment of off-site receptors more remote from the site will be presented in due course.

Should you require any further information or assistance, please do not hesitate to contact us.

Yours sincerely
RSA Geotechnics Ltd

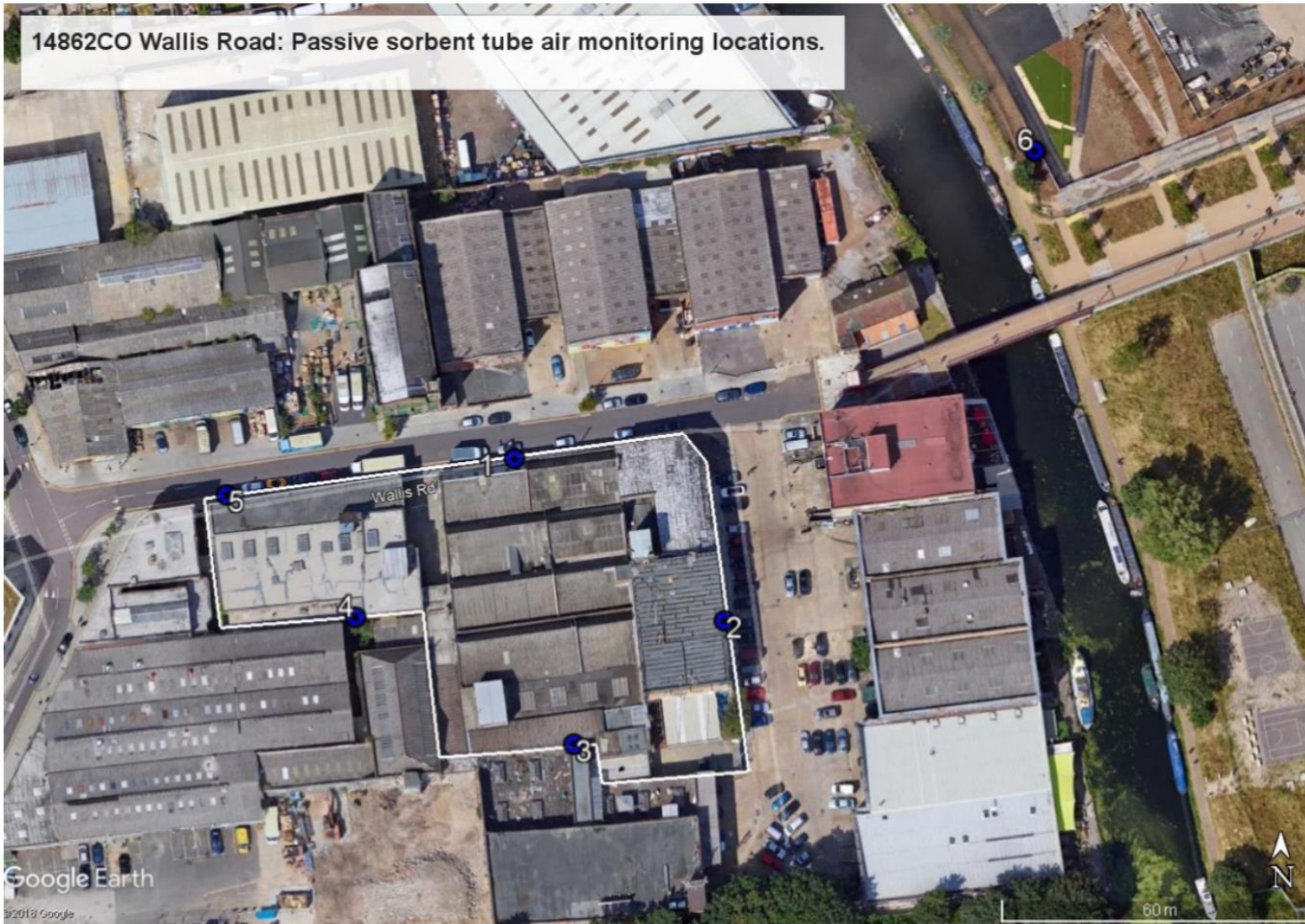


Adrian Phillips, FGS
Technical Director

Encs Locations for Passive Air and Vapour Monitoring
– Drawing Number 14862G12/9
Laboratory Test Report (ELAB, 18-19950)

Copy (Email) to: Jason Lumb (Arup) jason.lumb@arup.com
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14862CO Wallis Road: Passive sorbent tube air monitoring locations.



14862CO 80 TO 84 & 88 WALLIS ROAD, HACKNEY WICK E9 5LN

RELATIVE LOCATIONS OF PASSIVE SORBENT AIR MONITORING TUBES

RSA GEOTECHNICS LIMITED

Date 2 OCTOBER 2018

Scale NOT TO SCALE

Drawing No. 14862GI2/9



Unit A2
Windmill Road
Ponswood Industrial Estate
St Leonards on Sea
East Sussex
TN38 9BY
Telephone: (01424) 718618

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THE ENVIRONMENTAL LABORATORY LTD

Analytical Report Number: 18-19950

Issue: 1

Date of Issue: 12/10/2018

Contact: Phil Gawne

Customer Details: RSA Geotechnics Ltd
Ashburnham House
1 Maitland Road
Needham Market
Suffolk
IP6 8NZ

Quotation No: Q18-01116

Order No: Not Supplied

Customer Reference: Not Supplied

Date Received: 08/10/2018

Date Approved: 12/10/2018

Details: Stone Studios, Wallis Road, Hackney Wick, London E9 5LN

Approved by:

Mike Varley, Technical Manager

Any comments, opinions or interpretations expressed herein are outside the scope of UKAS accreditation (Accreditation Number 2683)



Sample Summary

Report No.: 18-19950

Elab No.	Client's Ref.	Date Sampled	Date Scheduled	Description	Deviations
152808	1406T	05/10/2018	08/10/2018		
152809	1407T	05/10/2018	08/10/2018		
152810	1408T	05/10/2018	08/10/2018		
152811	1409T	05/10/2018	08/10/2018		
152812	1412T	05/10/2018	08/10/2018		
152813	XS812	05/10/2018	08/10/2018		



Results Summary

Report No.: 18-19950

				ELAB Reference	152808	152809	152810	152811	152812	152813
				Customer Reference						
				Sample ID						
				Sample Type	GAS	GAS	GAS	GAS	GAS	GAS
				Sample Location	1406T	1407T	1408T	1409T	1412T	XS812
				Sample Depth (m)						
				Sampling Date	05/10/2018	05/10/2018	05/10/2018	05/10/2018	05/10/2018	05/10/2018
Determinand	Codes	Units	LOD							
VOC										
MTBE	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Heptane	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Octane	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Nonane	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Benzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethylbenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
m+p-xylene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
o-xylene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
cis-1,2-dichloroethene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloromethane	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethylene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethylene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1,2-Tetrachloroethane	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromobenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylethylbenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloro-1-propene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans - 1-2 -dichloroethylene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dibromomethane	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
cis-1,3-Dichloro-1-propene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
trans-1,3-Dichloro-1-propene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dibromochloromethane	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dibromoethane	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Propylbenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
4-Chlorotoluene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
t-butylbenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1-methylpropylbenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
p-cymene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Butylbenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1-2-3 - Trichlorobenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1-2-4 - Trichlorobenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
VOC TIC										
Various	N	µg/m3	1	None Detected	None Detected	None Detected	None Detected	None Detected	None Detected	None Detected



Results Summary

Report No.: 18-19950

				ELAB Reference	152808	152809	152810	152811	152812	152813
				Customer Reference						
				Sample ID						
				Sample Type	GAS	GAS	GAS	GAS	GAS	GAS
				Sample Location	1406T	1407T	1408T	1409T	1412T	XS812
				Sample Depth (m)						
				Sampling Date	05/10/2018	05/10/2018	05/10/2018	05/10/2018	05/10/2018	05/10/2018
Determinand	Codes	Units	LOD							
SVOC										
Phenol	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Aniline	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bis(2-chloroethyl)ether	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Chlorophenol	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Benzyl Alcohol	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Methylphenol	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bis(2-chloroisopropyl)ether	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
3 and 4-methylphenol	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
N-Nitrosodi-n-propylamine	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Hexachloroethane	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Nitrobenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Isophorone	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Nitrophenol	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,4-Dimethylphenol	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bis(2-chloroethoxy)methane	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,4-Dichlorophenol	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trichlorobenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	N	µg/m3	1	82	44	< 1	< 1	< 1	< 1	< 1
3-Chloroaniline	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Hexachloro-1,3-butadiene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
4-Chloro-3-methylphenol	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Methylnaphthalene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1-Methylnaphthalene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorocyclopentadiene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,4,6-Trichlorophenol	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,4,5-Trichlorophenol	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1-Chloronaphthalene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Nitroaniline	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dinitrobenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dimethyl phthalate	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1-3-dinitrobenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-6-dinitrotoluene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acenaphthylene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dinitrobenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
3-Nitroaniline	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acenaphthene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
4-nitrophenol	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dibenzofuran	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,3,5,6-Tetrachlorophenol	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,3,4,6-Tetrachlorophenol	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Diethyl phthalate	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1-chloro-4-phenoxybenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Fluorene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
4-Nitroaniline	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dinitro-o-cresol	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Diphenylamine	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Azobenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1-bromo-4-phenoxybenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobenzene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Pentachlorophenol	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1
Phenanthrene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1
Anthracene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1
Carbazole	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1
Dibutyl phthalate	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1
Fluoranthene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1
Pyrene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1
Butyl benzyl phthalate	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1
Bis-2-ethylhexyladipate	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1
Butyl benzyl phthalate	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1
Benzo(a)anthracene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1
Chrysene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1
Bis(2-ethylhexyl)phthalate	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1
Benzo(b)fluoranthene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1
Benzo(k)fluoranthene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1
Benzo(a)pyrene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1
Indeno(1,2,3-CD)pyrene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1
Dibenz(ah)anthracene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1
Benzo(ghi)perylene	N	µg/m3	1	< 1	< 1	< 1	< 1	< 1	< 1
SVOC TIC									
Various	N	µg/m3	1	Y	Y	Y	Y	Y	Y
Benzene, (1-methylethyl)-	N	µg/m3	1	8	-	-	-	-	-
Benzene, 1-ethyl-2-methyl-	N	µg/m3	1	63	-	-	-	-	-
Benzene, 1,2,3-trimethyl-	N	µg/m3	1	60	-	-	-	-	-
Benzofuran	N	µg/m3	1	15	-	-	-	-	-
Benzene, 1-methyl-4-(1-methylethyl)-	N	µg/m3	1	8	-	-	-	-	-
Indane	N	µg/m3	1	72	-	-	-	-	-
Benzene, 2-ethyl-1,4-dimethyl-	N	µg/m3	1	21	-	-	-	-	-
Benzene, 1-methyl-2-(1-methylethyl)-	N	µg/m3	1	11	-	-	-	-	-
Benzofuran, 7-methyl-	N	µg/m3	1	5	-	-	-	-	-
Cinnamaldehyde, (E)-	N	µg/m3	1	11	-	-	-	-	-
1,3-Cyclopentadiene, 1,2,3,4-tetramethyl-5	N	µg/m3	1	6	-	-	-	-	-
Benzene, 1,2,4,5-tetramethyl-	N	µg/m3	1	9	-	-	-	-	-
1-Phenyl-1-butene	N	µg/m3	1	13	-	-	-	-	-
Dodecane	N	µg/m3	1	12	-	-	-	-	-
Benzo[b]thiophene	N	µg/m3	1	11	-	-	-	-	-
Octadecane, 5,14-dibutyl-	N	µg/m3	1	7	-	-	-	-	-
1-Tetradecene	N	µg/m3	1	2	-	-	-	-	-
Tridecane	N	µg/m3	1	13	-	-	-	-	-
Tetracosane, 1-bromo-	N	µg/m3	1	4	-	-	-	-	-
Tetradecane	N	µg/m3	1	15	-	-	-	-	-
Ethanol, 2-(tetradecyloxy)-	N	µg/m3	1	1	-	-	-	-	-
Benzene, 1-ethyl-3-methyl-	N	µg/m3	1	-	39	-	-	-	-
Benzene, 1,2,3-trimethyl-	N	µg/m3	1	-	18	-	-	-	-
Indane	N	µg/m3	1	-	45	-	-	-	-
Benzene, 2-ethyl-1,4-dimethyl-	N	µg/m3	1	-	13	-	-	-	-
Benzene, 1-methyl-2-(1-methylethyl)-	N	µg/m3	1	-	1	-	-	-	-
Benzene, 2-ethyl-1,4-dimethyl-	N	µg/m3	1	-	7	-	-	-	-
Cinnamaldehyde, (E)-	N	µg/m3	1	-	2	-	-	-	-
3-Phenyl-2-propyn-1-ol	N	µg/m3	1	-	6	-	-	-	-
Benzene, 2-ethyl-1,3-dimethyl-	N	µg/m3	1	-	5	-	-	-	-
Benzene, 1,2,3,4-tetramethyl-	N	µg/m3	1	-	4	-	-	-	-
1H-Indene, 2,3-dihydro-4-methyl-	N	µg/m3	1	-	8	-	-	-	-
Tetradecane	N	µg/m3	1	-	12	-	-	-	-
2-Benzothiophene	N	µg/m3	1	-	6	-	-	-	-
Tridecane	N	µg/m3	1	-	5	-	-	-	-
Tridecane, 3-methyl-	N	µg/m3	1	-	3	-	-	-	-
Tetradecane	N	µg/m3	1	-	7	-	-	-	-
Naphthalene, 1,6-dimethyl-	N	µg/m3	1	-	2	-	-	-	-

Benzene, 2-ethyl-1,4-dimethyl-	N	µg/m3	1	-	-	2	-	-	-
Eicosane	N	µg/m3	1	-	-	2	-	-	-
Benzene, 1,3-dimethyl-	N	µg/m3	1	-	-	-	33	-	-
Benzene, 1-ethyl-3-methyl-	N	µg/m3	1	-	-	-	11	-	-
Benzene, 1,2,3-trimethyl-	N	µg/m3	1	-	-	-	25	-	-
Benzene, 1-ethyl-3-methyl-	N	µg/m3	1	-	-	-	5	-	-
Indane	N	µg/m3	1	-	-	-	8	-	-
Benzene, 1-methyl-2-(1-methylethyl)-	N	µg/m3	1	-	-	-	4	-	-
Dodecane	N	µg/m3	1	-	-	-	3	-	-
Undecane, 5-methyl-	N	µg/m3	1	-	-	-	2	-	-
Tetradecane	N	µg/m3	1	-	-	-	4	-	-
Cyclopentane, (1-methylbutyl)-	N	µg/m3	1	-	-	-	-	14	-
Benzene, 1-ethyl-2-methyl-	N	µg/m3	1	-	-	-	-	22	-
Benzene, 1,2,3-trimethyl-	N	µg/m3	1	-	-	-	-	24	-
Benzene, 1-ethyl-3-methyl-	N	µg/m3	1	-	-	-	-	47	-
Benzene, 1-methyl-3-(1-methylethyl)-	N	µg/m3	1	-	-	-	-	3	-
Benzene, 1-ethyl-4-methyl-	N	µg/m3	1	-	-	-	-	10	-
Indane	N	µg/m3	1	-	-	-	-	19	-
Benzene, 4-ethyl-1,2-dimethyl-	N	µg/m3	1	-	-	-	-	8	-
Benzene, 1-methyl-2-(1-methylethyl)-	N	µg/m3	1	-	-	-	-	6	-
1-Heptanol, 2-propyl-	N	µg/m3	1	-	-	-	-	1	-
Benzene, 1-methyl-3-(1-methylethyl)-	N	µg/m3	1	-	-	-	-	3	-
Benzene, 2-ethenyl-1,4-dimethyl-	N	µg/m3	1	-	-	-	-	5	-
3-Phenylbut-1-ene	N	µg/m3	1	-	-	-	-	6	-
Dodecane	N	µg/m3	1	-	-	-	-	7	-
Tridecane	N	µg/m3	1	-	-	-	-	13	-
Cyclohexane, (1-hexyltetradecyl)-	N	µg/m3	1	-	-	-	-	2	-
Eicosane, 10-methyl-	N	µg/m3	1	-	-	-	-	3	-
Tetradecane	N	µg/m3	1	-	-	-	-	14	-
2-Methyl-Z-4-tetradecene	N	µg/m3	1	-	-	-	-	3	-
Furan, 2-(1,1-dimethylethyl)-4-methyl-	N	µg/m3	1	-	-	-	-	-	5



Method Summary

Report No.: 18-19950

Parameter	Codes	Analysis Undertaken On	Date Tested	Method Number	Technique
VOC - Tubes	N		08/10/2018		GC-MS
SVOC - Tubes	N		08/10/2018	167	GC-MS
VOC - Tubes	N		08/10/2018	181	GC-MS

Tests marked N are not UKAS accredited



Report Information

Report No.: 18-19950

Key

U	hold UKAS accreditation
M	hold MCERTS and UKAS accreditation
N	do not currently hold UKAS accreditation
^	MCERTS accreditation not applicable for sample matrix
*	UKAS accreditation not applicable for sample matrix
S	Subcontracted to approved laboratory UKAS Accredited for the test
SM	Subcontracted to approved laboratory MCERTS/UKAS Accredited for the test
NS	Subcontracted to approved laboratory. UKAS accreditation is not applicable.
I/S	Insufficient Sample
U/S	Unsuitable sample
n/t	Not tested
<	means "less than"
>	means "greater than"

Soil sample results are expressed on an air dried basis (dried at < 30°C)
ELAB are unable to provide an interpretation or opinion on the content of this report.
The results relate only to the items tested
PCB congener results may include any coeluting PCBs
Uncertainty of measurement for the determinands tested are available upon request

Deviation Codes

- a No date of sampling supplied
- b No time of sampling supplied (Waters Only)
- c Sample not received in appropriate containers
- d Sample not received in cooled condition
- e The container has been incorrectly filled
- f Sample age exceeds stability time (sampling to receipt)
- g Sample age exceeds stability time (sampling to analysis)

Where a sample has a deviation code, the applicable test result may be invalid.

Sample Retention and Disposal

All soil samples will be retained for a period of one month
All water samples will be retained for 7 days following the date of the test report
Charges may apply to extended sample storage