

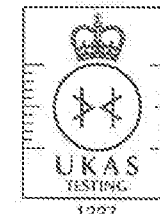


ENVIROCHEM

Analytical Laboratories Ltd

12 The Gardens, Broadcut, Fareham
Hampshire. PO16 8SS

Fibre Counting Report



CLIENT: Blaze Construction

SITE ADDRESS: West End Nursery, Roundstone Lane, Angmering, Littlehampton BN16 4AX

Our Ref: J141126 FC-12

Your Ref:

SAMPLING PROTOCOL: Reassurance

SAMPLED BY: Stefan Kitchener

ANALYSED BY (if different):

DATE OF SAMPLING: 18:04:18

DATE OF ANALYSIS (if different):

Filter No.	Pump	Head	Location	Time on	Time off	Flow (litres/min)			Volume (V) litres	Grats (n)	Fibres (N)	Calculation fibres/ml	Reported result fibres/ml
						Flow (start)	Flow (finish)	Flow (used)					
1	ENV24	SK1	Northerly perimeter of smaller mound (approx 10m away)	09:36	10:36	8.0	8.0	8.0	480	200	2.0	0.001	<0.01
2	A4	SK2	Easterly perimeter of main mound (approx 5m away)	09:48	10:48	8.0	8.0	8.0	480	200	1.0	0.001	<0.01
3	ENV42	SK3	South-easterly perimeter of main mound (approx 40m away)	09:50	10:50	8.0	8.0	8.0	480	200	2.5	0.001	<0.01
4	ABC	SK4	Southerly perimeter of main mound (approx 50m away)	09:53	10:53	8.0	8.0	8.0	480	200	1.0	0.001	<0.01
5	PO2	SK5	Westerly perimeter of main mound (approx 20m away, on construction site)	09:56	10:56	8.0	8.0	8.0	480	200	2.0	0.001	<0.01
7	ENV24	SK1	Northerly perimeter of smaller mound (approx 10m away)	11:53	12:53	8.0	8.0	8.0	480	200	3.0	0.002	<0.01

1. Unless otherwise stated, the detection limit is 0.01 fibres/ml.

3. Comments, observations and opinions are outside the scope of UKAS accreditation.

5. For clearance sampling, this report must be read in conjunction with the certificate of reoccupation.

2. Samples collected by the client are evaluated using information provided by the client.

4. Fibres were counted on membrane filter(s) in accordance with the HSE Guidance Note HSG 248.

Equipment Numbers:

Microscope: Meji 12

Stage Micrometer: WSM-21

Tally Counter: 8/US

Barometer: BTC-37

Thermometer: BTC-37

Flow Meter: FM45

Environment:

Temperature (°C): 20

Pressure (mb): 1018

Correction Factor (F): -

Diam. of dust deposit (D) (mm): 22.5

Test Slide (5 bands): Yes/No

W/B Grate diameter (µm): 100

Blank Filter

Head: SK7

Graticules:

Fibres:

Place of Analysis:

Lab HY14 DFC

On Site

Mod Lab

Comments

For exact sample locations see plan on back page. Reassurance air testing carried out in various locations during excavation of asbestos contaminated earth. Air testing to ascertain airborne fibre concentration. Results satisfactory.

SIGNATURE
(on behalf of Env
ENVIROCHEM

PRINT NAME: Stefan Kitchener

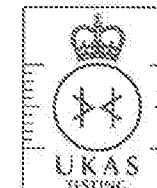


ENVIROCHEM

Analytical Laboratories Ltd

12 The Gardens, Broadcut, Fareham
Hampshire. PO16 8SS

Fibre Counting Report



CLIENT: Blaze Construction

SITE ADDRESS: West End Nursery, Roundstone Lane, Angmering, Littlehampton BN16 4AX

Our Ref: J141126 FC-12

Your Ref:

SAMPLING PROTOCOL: Reassurance

SAMPLED BY: Stefan Kitchener

ANALYSED BY (if different):

DATE OF SAMPLING: 18:04:18

DATE OF ANALYSIS (if different):

Filter No.	Pump	Head	Location	Time on	Time off	Flow (litres/min)			Volume (V) litres	Grats (n)	Fibres (N)	Calculation fibres/ml	Reported result fibres/ml
						Flow (start)	Flow (finish)	Flow (used)					
8	A4	SK2	Easterly perimeter of main mound (approx 5m away)	12:10	13:10	8.0	8.0	8.0	480	200	1.5	0.001	<0.01
9	ENV42	SK3	South-easterly perimeter of main mound (approx 40m away)	12:12	13:12	8.0	8.0	8.0	480	200	0.5	0.001	<0.01
10	ABC	SK4	Southerly perimeter of main mound (approx 50m away)	12:13	13:13	8.0	8.0	8.0	480	200	2.5	0.001	<0.01
11	PO2	SK5	Westerly perimeter of main mound (approx 20m away, on construction site)	12:23	13:23	8.0	8.0	8.0	480	200	1.0	0.001	<0.01

1. Unless otherwise stated, the detection limit is 0.01 fibres/ml.

3. Comments, observations and opinions are outside the scope of UKAS accreditation.

5. For clearance sampling, this report must be read in conjunction with the certificate of reoccupation.

2. Samples collected by the client are evaluated using information provided by the client.

4. Fibres were counted on membrane filter(s) in accordance with the HSE Guidance Note HSG 248.

Equipment Numbers:

Microscope: Meji 12

Barometer: BTC-37

Stage Micrometer: WSM-21

Thermometer: BTC-37

Tally Counter: 8/US

Flow Meter: FM45

Environment:

Temperature (°C): 20

Pressure (mb): 1018

Correction Factor (F): -

Diam. of dust deposit (D) (mm): 22.5

Test Slide (5 bands): Yes/No

W/B Grate diameter (µm): 100

Blank Filter

Head: SK7

Graticules:

Fibres:

Place of Analysis:

Lab HY14 DFC

On Site

Not Lab

Comments

For exact sample locations see plan on back page. Reassurance air testing carried out in various locations during excavation of asbestos contaminated earth. Air testing to ascertain airborne fibre concentration. Results satisfactory.

SIGNATURE
(on behalf of Envirochem Ltd)

PRINT NAME: Stefan Kitchener



ENVIROCHEM

Analytical Laboratories Ltd

12 The Gardens, Broadcut, Fareham
Hampshire. PO16 8SS

Fibre Counting Report



CLIENT: Blaze Construction

SITE ADDRESS: West End Nursery, Roundstone Lane, Angmering, Littlehampton BN16 4AX

Our Ref: J141126 FC-12

Your Ref:

SAMPLING PROTOCOL: Personal

SAMPLED BY: Stefan Kitchener

ANALYSED BY (if different):

DATE OF SAMPLING: 18:04:18

DATE OF ANALYSIS (if different):

Filter No.	Pump	Head	Location	Time on	Time off	Flow (litres/min)			Volume (V) litres	Grats (n)	Fibres (N)	Calculation fibres/ml	Reported result fibres/ml
						Flow (start)	Flow (finish)	Flow (used)					
6	AP3	SK6	Michael Pronger - Earthworks - Bulldozer operative	10:02	11:01	3.0	3.0	3.0	177	200	2.0	0.003	<0.026

1. Unless otherwise stated, the detection limit is 0.01 fibres/ml.

2. Comments, observations and opinions are outside the scope of UKAS accreditation.

3. For clearance sampling, this report must be read in conjunction with the certificate of non-occupancy.

4. Samples collected by the client are evaluated using information provided by the client.

5. Fibres were counted on membrane filter(s) in accordance with the HSE Guidance Note HSG 248.

Equipment Numbers:

Microscope: Meji 12

Barometer: BTC-37

Stage Micrometer: WSM21

Thermometer: BTC-37

Tally Counter: 2/US

Flow Meter: FM50

Environment:

Temperature (°C): 20

Pressure (mb): 1018

Correction Factor (F): -

Diam. of dust deposit (D) (mm): 22.5

Test Slide (5 bands): Yes/No

W/B Grate diameter (µm): 100

Blank Filter

Head: SK7

Graticules:

Fibres:

Place of Analysis:

Lab: HY14 DFC

On Site

Mob Lab

Comments

Personal monitoring carried out during excavation of contaminated soil. Air testing to ascertain airborne fibre concentration.

SIGNATURE:

(on behalf of Envirochem Ltd)

ENVIROCHEM/FORMS/WORKSHEETS/02/ISSUE07/NOV06

PRINT NAME: Stefan Kitchener



ENVIROCHEM

Analytical Laboratories Ltd

12 The Gardens
Broadcut, Fareham
Hampshire. PO16 8SS

Ref No: J141126 FC-12

Personal Monitoring Observation Form

Type & Scale of work: Remediating surface East of main mound (with bulldozer), surface know to be contaminated with asbestos cement

Purpose of monitoring: (select all that apply)

Checking effectiveness of methods ☒ Providing data for personal exposure records ☒ Confirming appropriate RPE being worn ☐

General control measures in use: (select all that apply)

Enclosure (under negative pressure) ☐ Partial enclosure ☐ Injection ☐
Gel/Foam ☐ Shadow vacuum ☐ Spraying ☒

Other (Please specify): Soil is wet

Sampling Details:

Operative's Name/job title: Michael Pronger - Earthworks - Bulldozer operative

Type of RPE worn: none

Length of time Operative is / has been exposed: 8 hours appox

Asbestos Product(s) being removed including detail of fixings, size, surface treatment and tools used during works and dust suppression methods being used by operative:

Asbestos cement strewn across area next to main mound, this will be scraped off surface with bulldozer and moved onto main mound, Sprayers operational, Windows will be closed during works

General Description of activities being undertaking during sampling:

Scraping surface of soil onto main asbestos mound

Is the asbestos in good or bad condition (as per the method statements description): Broken in ground

Other factors which may affect the result (eg approximate size of the enclosure, external location, etc):

Time weighted average (4 Hour TWA) =
$$\frac{(F1 \times T1) + (F2 \times T2) + \dots (Fn \times Tn)}{4}$$
 TWA = NA f/ml

Where F = concentration f/ml

T = Time for that exposure, hours and minutes, 1 hr 30 mins = 1.5

Notes: The sampling period must be sufficient to ensure it is fully representative of the work. Sampling periods should be for 4 hours to access the control limit or for the duration of a specific task for shorter duration activities. A minimum sample time of 10 minutes is required to assess the Short Term Exposure Limit. In general, the client is to specify their requirements depending on previous personal air sampling carried out. All information was collected from the method statement or / and the site contact and this information is deemed as accurate / correct for the purpose of this report.

Analyst: Stefan Kitchener

Signature:

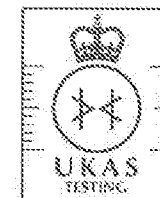


ENVIROCHEM

Analytical Laboratories Ltd

12 The Gardens, Broadcut, Fareham
Hampshire. PO16 8SS

Fibre Counting Report



CLIENT: Blaze Construction

SITE ADDRESS: West End Nursery, Roundstone Lane, Angmering, Littlehampton BN16 4AX

Our Ref: J141126 FC-12

Your Ref:

SAMPLING PROTOCOL: Personal

SAMPLED BY: Stefan Kitchener

ANALYSED BY (if different):

DATE OF SAMPLING: 18:04:18

DATE OF ANALYSIS (if different):

Filter No.	Pump	Head	Location	Time on	Time off	Flow (litres/min)			Volume (V) litres	Grats (n)	Fibres (N)	Calculation fibres/ml	Reported result fibres/ml
						Flow (start)	Flow (finish)	Flow (used)					
12	AP3	SK6	Dan Smith - Earthworks - Excavator operative	12:15	1:17	3.0	3.0	3.0	186	200	1.0	0.001	<0.026

1. Unless otherwise stated, the detection limit is 0.01 fibres/ml.

2. Comments, observations and opinions are outside the scope of UKAS accreditation.

3. For clearance sampling, this report must be read in conjunction with the certificate of non-occupancy.

4. Samples collected by the client are evaluated using information provided by the client.

5. Fibres were counted on membrane filter(s) in accordance with the HSE Guidance Note HSG 248.

Equipment Numbers:

Microscope: Meji 12

Barometer: BTC-37

Stage Micrometer: WSM21

Thermometer: BTC-37

Tally Counter: 2/US

Flow Meter: FM50

Environment:

Temperature (°C): 20

Pressure (mb): 1018

Correction Factor (F): -

Diam. of dust deposit (D) (mm): 22.5

Test Slide (5 bands): Yes/No

W/B Grate diameter (µm): 100

Blank Filter

Head: SK7

Graticules:

Fibres:

Place of Analysis:

Lab: HY14 DFC

On Site

Mob Lab

Comments

Personal monitoring carried out during excavation of contaminated soil. Air testing to ascertain airborne fibre concentration.

SIGNATURE:

(on behalf of Envirochem)

PRINT NAME: Stefan Kitchener

ENVIROCHEM/FORMS/WORKSHEETS/02/ISSUE07/NOV06



ENVIROCHEM

Analytical Laboratories Ltd

12 The Gardens
Broadcut, Fareham
Hampshire. PO16 8SS

Ref No: J141126 FC-12

Personal Monitoring Observation Form

Type & Scale of work: Moving bulldozed soil contaminated with asbestos onto main contaminated mound with excavator

Purpose of monitoring: (select all that apply)

Checking effectiveness of methods ☒ Providing data for personal exposure records ☒ Confirming appropriate RPE being worn ☐

General control measures in use: (select all that apply)

Enclosure (under negative pressure) ☐ Partial enclosure ☐ Injection ☐
Gel/Foam ☐ Shadow vacuum ☐ Spraying ☒

Other (Please specify): Soil is wet

Sampling Details:

Operative's Name/job title: Dan Smith - Earthworks - Excavator operative

Type of RPE worn: none

Length of time Operative is / has been exposed: 8 hours appox

Asbestos Product(s) being removed including detail of fixings, size, surface treatment and tools used during works and dust suppression methods being used by operative:

Broken asbestos cement present within bulldozed soil, soil moved with excavator onto main pile, Sprayers operational, Windows will be closed during works

General Description of activities being undertaking during sampling:

Scraping surface of soil onto main asbestos mound

Is the asbestos in good or bad condition (as per the method statements description): Broken in ground

Other factors which may affect the result (eg approximate size of the enclosure, external location, etc):

Time weighted average (4 Hour TWA) =
$$\frac{(F1 \times T1) + (F2 \times T2) + \dots (Fn \times Tn)}{4}$$
 TWA = NA f/ml

Where F = concentration f/ml

T = Time for that exposure, hours and minutes, 1 hr 30 mins = 1.5

Notes: The sampling period must be sufficient to ensure it is fully representative of the work. Sampling periods should be for 4 hours to access the control limit or for the duration of a specific task for shorter duration activities. A minimum sample time of 10 minutes is required to assess the Short Term Exposure Limit. In general, the client is to specify their requirements depending on previous personal air sampling carried out. All information was collected from the method statement or / and the site contact and this information is deemed as accurate / correct for the purpose of this report.

Analyst: Stefan Kitchener

Sign

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FILL Depth Bands		
Band 1	0.00 -	0.50
Band 2	0.50 -	1.00
Band 3	1.00 -	1.50
Band 4	1.50 -	2.00
Band 5	2.00 -	2.50
Band 6	2.50 -	3.00
Band 7	3.00 -	3.50
Band 8	3.50 -	4.00



J141126 FC-12 - 18:04:18 - Sample location plan

Notes

The volumes provided are an approximation only and are based on the current design levels. The volumes given below should be used with caution.

1. Cut & Fill

Total contaminated material sources

Contaminated bund = 9470m³
Phase 1.0m Strip = 4085m³
Sound Barrier Cut = 490m³ (135m²+355m²)
Front Bund = 1065m³

Total = 15110m³



KEY PLAN

Notes

1.) It is assumed that any cut material can be reused on site as an engineered fill material. It is likely that material from site will need to be conditioned in terms of their moisture content to ensure they can be adequately compacted within proposed earthworks.

2.) The volume provided are an approximation only on the current design levels. The volumes given below should be used with caution.

REVISIONS

POI: 10/11/17 First Issue: SM D3 D6

Rev	Date	Description	By	Chk	App
Hydrock OVERSEAS BANKS ALMONDSBURY BRISTOL BS42 4DF 01454 321414 (L1855) info@hydrock.co.uk					

CLIENT
CALA HOMES

PROJECT
ANGMERING
REMEDIATION

TITLE
EARTHWORK STRATEGY -
CONTAMINATED SOURCES

HYDROCK PROJECT CODE: C-06279-C		SCALE: @A1 AS SHOWN	
STATUS DESCRIPTION CONSTRUCTION		STATUS S2	
DRAWING NO.: PROJECT CODE ORIGINATOR'S DESIGN LEVEL TYPE NO.: NUM003		REVISION WEA-HYD-XX-XX-DR-C-2400	
		P01	

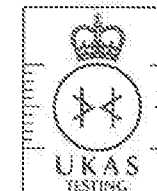


ENVIROCHEM

Analytical Laboratories Ltd

12 The Gardens, Broadcut, Fareham
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Fibre Counting Report



CLIENT: Blaze Construction

SITE ADDRESS: West End Nursery, Roundstone Lane, Angmering, Littlehampton BN16 4AX

Our Ref: J141127 FC-12

Your Ref:

SAMPLING PROTOCOL: Reassurance

SAMPLED BY: Stefan Kitchener

ANALYSED BY (if different):

DATE OF SAMPLING: 19:04:18

DATE OF ANALYSIS (if different):

Filter No.	Pump	Head	Location	Time on	Time off	Flow (litres/min)			Volume (V) litres	Grats (n)	Fibres (N)	Calculation fibres/ml	Reported result fibres/ml
						Flow (start)	Flow (finish)	Flow (used)					
1	ENV24	SK1	Northerly perimeter of smaller mound (approx 10m away)	09:35	10:35	8.0	8.0	8.0	480	200	1.5	0.001	<0.01
2	A4	SK2	Easterly perimeter of main mound (approx 5m away)	09:49	10:49	8.0	8.0	8.0	480	200	0.5	0.001	<0.01
3	ENV42	SK3	South-easterly perimeter of main mound (approx 40m away, Along site perimeter fence)	09:50	10:50	8.0	8.0	8.0	480	200	2.0	0.001	<0.01
4	ABC	SK4	Southerly perimeter of main mound (approx 50m away, Along site perimeter fence)	09:56	10:56	8.0	8.0	8.0	480	200	1.0	0.001	<0.01
5	PO2	SK5	Westerly perimeter of main mound (approx 20m away, on construction site)	10:05	11:05	8.0	8.0	8.0	480	200	2.5	0.001	<0.01
7	ENV24	SK1	Northerly perimeter of smaller mound (approx 10m away)	11:39	12:39	8.0	8.0	8.0	480	200	1.0	0.001	<0.01

1. Unless otherwise stated, the detection limit is 0.01 fibres/ml.

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2. Samples collected by the client are evaluated using information provided by the client.

4. Fibres were counted on membrane filter(s) in accordance with the HSE Guidance Note HSG 248.

Equipment Numbers:

Microscope: Meji 12

Barometer: BTC-37

Stage Micrometer: WSM-21

Thermometer: BTC-37

Tally Counter: 8/US

Flow Meter: FM45

Environment:

Temperature (°C): 22

Pressure (mb): 1023

Correction Factor (F): -

Diam. of dust deposit (D) (mm): 22.5

Test Slide (5 bands): Yes/No

W/B Grate diameter (µm): 100

Blank Filter

Head: SK7

Graticules:

Fibres:

Place of Analysis:

Lab HY14 DFC

On Site

Not Lab

Comments

For exact sample locations see plan on back page. Reassurance air testing carried out in various locations during excavation of asbestos contaminated earth. Air testing to ascertain airborne fibre concentration. Results satisfactory.

SIGNATURE

(on behalf of Envirochem)

ENVIROCHEM

PRINT NAME: Stefan Kitchener

07/NOV06



ENVIROCHEM

Analytical Laboratories Ltd

12 The Gardens, Broadcut, Fareham
Hampshire. PO16 8SS

Fibre Counting Report

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SITE ADDRESS: West End Nursery, Roundstone Lane, Angmering, Littlehampton BN16 4AX

Our Ref: J141127 FC-12

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SAMPLING PROTOCOL: Reassurance

SAMPLED BY: Stefan Kitchener

ANALYSED BY (if different):

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						Flow (start)	Flow (finish)	Flow (used)					
8	A4	SK2	Easterly perimeter of main mound (approx 5m away)	12:10	13:10	8.0	8.0	8.0	480	200	1.0	0.001	<0.01
9	ENV42	SK3	South-easterly perimeter of main mound (approx 40m away)	12:12	13:12	8.0	8.0	8.0	480	200	2.0	0.001	<0.01
10	ABC	SK4	Southerly perimeter of main mound (approx 50m away)	12:13	13:13	8.0	8.0	8.0	480	200	1.0	0.001	<0.01
11	PO2	SK5	Westerly perimeter of main mound (approx 20m away, on construction site)	12:23	13:23	8.0	8.0	8.0	480	200	1.5	0.001	<0.01

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Equipment Numbers:

Microscope: Meji 12

Stage Micrometer: WSM-21

Tally Counter: 8/US

Barometer: BTC-37

Thermometer: BTC-37

Flow Meter: FM45

Environment:

Temperature (°C): 22

Pressure (mb): 1023

Correction Factor (F): -

Diam. of dust deposit (D) (mm): 22.5

Test Slide (5 bands): Yes/No

W/B Grate diameter (µm): 100

Blank Filter

Head: SK7

Graticules:

Fibres:

Place of Analysis:

Lab HY14 DFC

On Site

Not Lab

Comments

For exact sample locations see plan on back page. Reassurance air testing carried out in various locations during excavation of asbestos contaminated earth. Air testing to ascertain airborne fibre concentration. Results satisfactory.

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(on behalf of Envirochem)

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PRINT NAME: Stefan Kitchener

NOV06

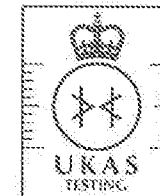


ENVIROCHEM

Analytical Laboratories Ltd

12 The Gardens, Broadcut, Fareham
Hampshire. PO16 8SS

Fibre Counting Report



CLIENT: Blaze Construction

SITE ADDRESS: West End Nursery, Roundstone Lane, Angmering, Littlehampton BN16 4AX

Our Ref: J141127 FC-12

Your Ref:

SAMPLING PROTOCOL: Personal

SAMPLED BY: Stefan Kitchener

ANALYSED BY (if different):

DATE OF SAMPLING: 19:04:18

DATE OF ANALYSIS (if different):

Filter No.	Pump	Head	Location	Time on	Time off	Flow (litres/min)			Volume (V) litres	Grats (n)	Fibres (N)	Calculation fibres/ml	Reported result fibres/ml
						Flow (start)	Flow (finish)	Flow (used)					
6	AP3	SK6	Allan Morris - Agency / Earthworks - Articulated dumper operative	09:52	10:55	3.0	3.0	3.0	192	200	1.0	0.001	<0.026

1. Unless otherwise stated, the detection limit is 0.01 fibres/ml.

2. Comments, observations and opinions are outside the scope of UKAS accreditation.

3. For clearance sampling, this report must be read in conjunction with the certificate of non-occupancy.

4. Samples collected by the client are evaluated using information provided by the client.

5. Fibres were counted on membrane filter(s) in accordance with the HSE Guidance Note HSG 248.

Equipment Numbers:

Microscope: Meji 12

Barometer: BTC-37

Stage Micrometer: WSM21

Thermometer: BTC-37

Tally Counter: 2/US

Flow Meter: FM50

Environment:

Temperature (°C): 22

Pressure (mb): 1023

Correction Factor (F): -

Diam. of dust deposit (D) (mm): 22.5

Test Slide (5 bands): Yes/No

W/B Grate diameter (µm): 100

Blank Filter

Head: SK7

Graticules:

Fibres:

Place of Analysis:

Lab: HY14 DFC

On Site

Mob Lab

Comments

Personal monitoring carried out during excavation of contaminated soil. Air testing to ascertain airborne fibre concentration.

SIGNATURE:

(on behalf of Envirochem)

ENVIROCHEM/

PRINT NAME: Stefan Kitchener

UE07/NOV06



ENVIROCHEM

Analytical Laboratories Ltd

12 The Gardens
Broadcut, Fareham
Hampshire. PO16 8SS

Ref No: J141127 FC-12

Personal Monitoring Observation Form

Type & Scale of work: Moving clean soil from excavation at bottom of site to various locations around site, clean area immediately adjacent dirty/contaminated mound

Purpose of monitoring: (select all that apply)

Checking effectiveness of methods ☒ Providing data for personal exposure records ☒ Confirming appropriate RPE being worn ☐

General control measures in use: (select all that apply)

Enclosure (under negative pressure) ☐ Partial enclosure ☐ Injection ☐
Gel/Foam ☐ Shadow vacuum ☐ Spraying ☒

Other (Please specify): Soil is wet

Sampling Details:

Operative's Name/job title: Allan Morris - Agency / Earthworks - Articulated dumper operative

Type of RPE worn: none

Length of time Operative is / has been exposed: 8 hours approx

Asbestos Product(s) being removed including detail of fixings, size, surface treatment and tools used during works and dust suppression methods being used by operative:

Excavation of asbestos contaminated soil happening in nearby (approx 30m at closest point) Sprayers operational, Windows will be closed during works

General Description of activities being undertaking during sampling:

Moving clean soil around site

Is the asbestos in good or bad condition (as per the method statements description): Broken in ground

Other factors which may affect the result (eg approximate size of the enclosure, external location, etc):

Time weighted average (4 Hour TWA) =
$$\frac{(F1 \times T1) + (F2 \times T2) + \dots (Fn \times Tn)}{4}$$
 TWA = NA f/ml

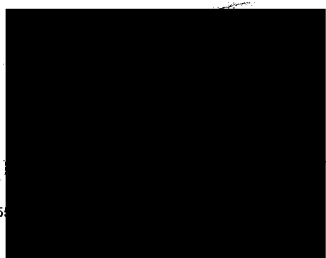
Where F = concentration f/ml

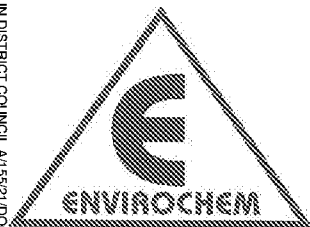
T = Time for that exposure, hours and minutes, 1 hr 30 mins = 1.5

Notes: The sampling period must be sufficient to ensure it is fully representative of the work. Sampling periods should be for 4 hours to access the control limit or for the duration of a specific task for shorter duration activities. A minimum sample time of 10 minutes is required to assess the Short Term Exposure Limit. In general, the client is to specify their requirements depending on previous personal air sampling carried out. All information was collected from the method statement or / and the site contact and this information is deemed as accurate / correct for the purpose of this report.

Analyst: Stefan Kitchener

Signature:





ENVIROCHEM

Analytical Laboratories Ltd

12 The Gardens, Broadcut, Fareham
Hampshire. PO16 8SS

Fibre Counting Report



CLIENT: Blaze Construction

SITE ADDRESS: West End Nursery, Roundstone Lane, Angmering, Littlehampton BN16 4AX

Our Ref: J141127 FC-12

Your Ref:

SAMPLING PROTOCOL: Personal

SAMPLED BY: Stefan Kitchener

ANALYSED BY (if different):

DATE OF SAMPLING: 19:04:18

DATE OF ANALYSIS (if different):

Filter No.	Pump	Head	Location	Time on	Time off	Flow (litres/min)			Volume (V) litres	Grats (n)	Fibres (N)	Calculation fibres/ml	Reported result fibres/ml
						Flow (start)	Flow (finish)	Flow (used)					
12	AP3	SK6	Bill Mastable - Earthworks - Excavator operative	11:50	12:51	3.0	3.0	3.0	183	200	1.0	0.001	<0.026

1. Unless otherwise stated, the detection limit is 0.01 fibres/ml.

3. Comments, observations and opinions are outside the scope of UKAS accreditation.

5. For clearance sampling, this report must be read in conjunction with the certificate of reoccupation.

2. Samples collected by the client are evaluated using information provided by the client.

4. Fibres were counted on membrane filter(s) in accordance with the HSE Guidance Note HSG 248.

Equipment Numbers:

Microscope: Meji 12

Barometer: BTC-37

Stage Micrometer: WSM21

Thermometer: BTC-37

Tally Counter: 8/US

Flow Meter: FM50

Environment:

Temperature (°C): 22

Pressure (mb): 1023

Correction Factor (F): -

Diam. of dust deposit (D) (mm): 22.5

Test Slide (5 bands): Yes/No

W/B Grate diameter (µm): 100

Blank Filter

Head: SK7

Graticules:

Fibres:

Place of Analysis:

Lab HY14 DFC

On Site

Mob Lab

Comments

Personal monitoring carried out during excavation of contaminated soil. Air testing to ascertain airborne fibre concentration.

SIGNATURE:

(on behalf of Envirochem by an authorised signatory)

ENVIROCHEM/FORMS/WORKSHEETS/02/ISSUE07/NOV06

PRINT NAME: Stefan Kitchener



ENVIROCHEM

Analytical Laboratories Ltd

12 The Gardens
Broadcut, Fareham
Hampshire. PO16 8SS

Ref No: J141127 FC-12

Personal Monitoring Observation Form

Type & Scale of work: Excavating clean soil next to contaminated mound and loading into moxy to be transported across site

Purpose of monitoring: (select all that apply)

Checking effectiveness of methods ☒ Providing data for personal exposure records ☒ Confirming appropriate RPE being worn ☐

General control measures in use: (select all that apply)

Enclosure (under negative pressure) ☐ Partial enclosure ☐ Injection ☐
Gel/Foam ☐ Shadow vacuum ☐ Spraying ☒

Other (Please specify): Soil is wet

Sampling Details:

Operative's Name/job title: Bill Mastable - Earthworks - Excavator operative

Type of RPE worn: none

Length of time Operative is / has been exposed: 8 hours approx

Asbestos Product(s) being removed including detail of fixings, size, surface treatment and tools used during works and dust suppression methods being used by operative:

Broken asbestos within soil nearby (approx 30m away) Sprayers operational, Windows will be closed during works

General Description of activities being undertaking during sampling:

Moving clean material from clean stockpile to moxy

Is the asbestos in good or bad condition (as per the method statements description): Broken in ground

Other factors which may affect the result (eg approximate size of the enclosure, external location, etc):

Time weighted average (4 Hour TWA) =
$$\frac{(F1 \times T1) + (F2 \times T2) + \dots (Fn \times Tn)}{4}$$
 TWA = NA f/ml

Where F = concentration f/ml
T = Time for that exposure, hours and minutes, 1 hr 30 mins = 1.5

Notes: The sampling period must be sufficient to ensure it is fully representative of the work. Sampling periods should be for 4 hours to access the control limit or for the duration of a specific task for shorter duration activities. A minimum sample time of 10 minutes is required to assess the Short Term Exposure Limit. In general, the client is to specify their requirements depending on previous personal air sampling carried out. All information was collected from the method statement or / and the site contact and this information is deemed as accurate / correct for the purpose of this report.

Analyst: Stefan Kitchener

Signature

FILL Depth Bands	
Band 1	0.00 - 0.50
Band 2	0.50 - 1.00
Band 3	1.00 - 1.50
Band 4	1.50 - 2.00
Band 5	2.00 - 2.50
Band 6	2.50 - 3.00
Band 7	3.00 - 3.50
Band 8	3.50 - 4.00



J141127 FC-12 - 19:04:18 - Sample location plan

Notes

The volumes provided are an approximation only and are based on the current design levels. The volumes given below should be used with caution.

1. Cut & Fill

Total contaminated material sources

Contaminated bund = 9470m³
Phase 1.0m Strip = 4085m³
Sound Barrier Cut = 490m³ (135m²+355m²)
Front Bund = 1065m³

Total = 15110m³

KEY PLAN

Notes

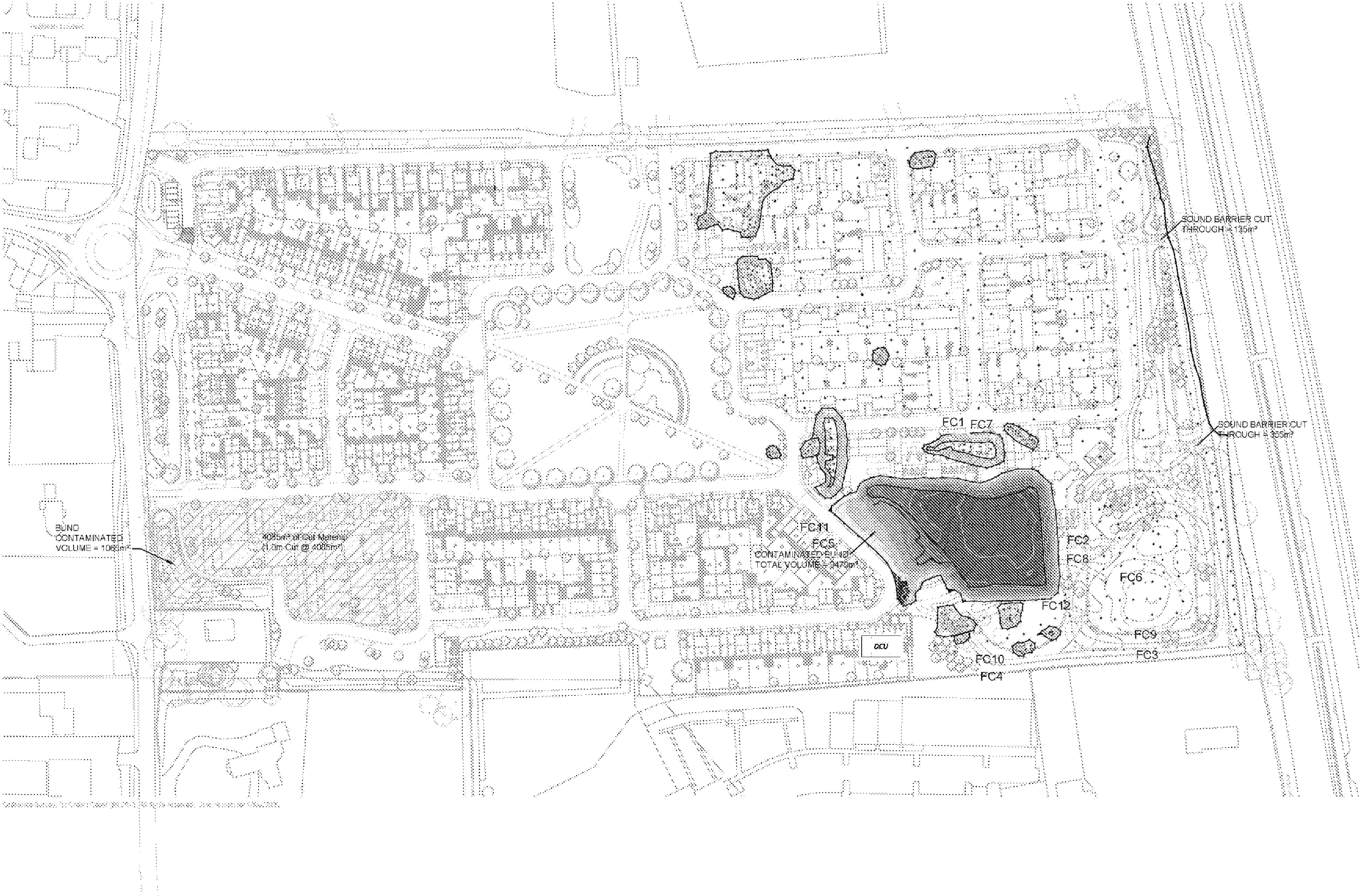
1.) It is assumed that any cut material can be reused on site as an engineered fill material. It is likely that material from site will need to be conditioned in terms of their moisture content to ensure they can be adequately compacted within proposed earthworks.

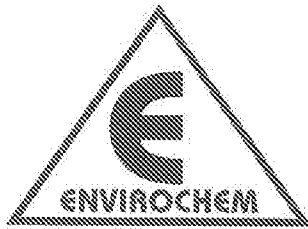
2.) The volume provided are an approximation only on the current design levels. The volumes given below should be used with caution.

REVISIONS

POI: 10/11/17 First Issue: SM D3 D6

Rev	Date	Description	By	Chk	App
Hydrock OVERSEAS BANKS ALMONDSBURY BRISTOL BS42 4DF 01454 321414 (local) info@hydrock.co.uk					
CLIENT CALA HOMES					
PROJECT ANGMERING REMEDIATION					
TITLE EARTHWORK STRATEGY - CONTAMINATED SOURCES					
HYDROCK PROJECT CODE C-06279-C			SCALE: @A1 AS SHOWN		
STATUS DESCRIPTION CONSTRUCTION					STATUS S2
DRAWING NO.: PROJECT CODE ORIGINATOR'S DESIGN LEVEL TYPE (FC-12) NUMBER WEA-HYD-XX-XX-DR-C-2400					REVISION P01





ENVIROCHEM

Analytical Laboratories Ltd

12 The Gardens, Broadcut, Fareham
Hampshire. PO16 8SS

Fibre Counting Report



CLIENT: Blaze Construction

SITE ADDRESS: West End Nursery, Roundstone Lane, Angmering, Littlehampton, BN16
4AX

Our Ref: J141128 - FC12

Your Ref: No Number Stated

SAMPLING PROTOCOL: Reassurance

SAMPLED BY: Marc Pohl

ANALYSED BY (if different): -

DATE OF SAMPLING: 20.04.2018

DATE OF ANALYSIS (if different): -

Filter No.	Pump	Head	Location	Time on	Time off	Flow (litres/min)			Volume (V) litres	Grats (r)	Fibres (N)	Calculation fibres/ml	Reported result fibres/ml
						Flow (start)	Flow (finish)	Flow (used)					
FC1	ENV28	M1	Location 1	09:40	10:40	8.0	8.0	8.0	480	200	1.0	0.001	<0.01
FC2	FU2	M2	Location 2	09:42	10:42	8.0	8.0	8.0	480	200	1.0	0.001	<0.01
FC3	JS10	M3	Location 3	09:47	10:47	8.0	8.0	8.0	480	200	0.5	0.001	<0.01
FC5	FU2	M4	Location 4	10:50	11:50	8.0	8.0	8.0	480	200	2.0	0.001	<0.01
FC6	ENV28	M5	Location 5	10:53	11:53	8.0	8.0	8.0	480	200	1.5	0.001	<0.01
FC7	JS10	M6	Location 6	10:55	11:55	8.0	8.0	8.0	480	200	1.0	0.001	<0.01

1. Unless otherwise stated, the detection limit is 0.01 fibres/ml.

2. Comments, observations and opinions are outside the scope of UKAS accreditation.

5. For clearance sampling, this report must be read in conjunction with the certificate of reoccupation.

2. Samples collected by the client are evaluated using information provided by the client.

4. Fibres were counted on membrane filter(s) in accordance with the HSE Guidance Note HSG 248.

Equipment Numbers:

Microscope: PCM7

Barometer: BTC 39

Stage Micrometer: WSM 16

Thermometer: BTC 39

Tally Counter: 8/US

Flow Meter: FM 3

Environment:

Temperature (°C): 24

Pressure (mb): 1030

Correction Factor (F): -

Blank Filter

Head: M7

Graticules: -

Fibres: -

Place of Analysis:

Lab HX63 YVK

On Site

Not Lab

Comments

Reassurance air monitoring to determine airborne fiber concentrations around the perimeter of the asbestos contaminated area during ground remediation works

Air test results: Satisfactory.

SIGNATURE:

(on behalf of Envirochem by an authorised signatory)

ENVIROCHEM/FORMS/WORKSHEETS/02/ISSUE07/NOV06

PRINT NAME: Marc Pohl



ENVIROCHEM

Analytical Laboratories Ltd

12 The Gardens, Broadcut, Fareham
Hampshire. PO16 8SS

Fibre Counting Report



CLIENT: Blaze Construction

SITE ADDRESS: West End Nursery, Roundstone Lane, Angmering, Littlehampton, BN16
4AX

Our Ref: J141128 - FC12

Your Ref: No Number Stated

SAMPLING PROTOCOL: Reassurance

SAMPLED BY: Marc Pohl

ANALYSED BY (if different): -

DATE OF SAMPLING: 20.04.2018

DATE OF ANALYSIS (if different): -

Filter No.	Pump	Head	Location	Time on	Time off	Flow (litres/min)			Volume (V) litres	Grats (n)	Fibres (N)	Calculation fibres/ml	Reported result fibres/ml
						Flow (start)	Flow (finish)	Flow (used)					
FC9	ENV28	M1	Location 7	12:01	13:01	8.0	8.0	8.0	480	200	0.5	0.001	<0.01
FC10	FU2	M2	Location 8	12:02	13:02	8.0	8.0	8.0	480	200	1.0	0.001	<0.01
FC11	JS10	M3	Location 9	12:03	13:03	8.0	8.0	8.0	480	200	1.0	0.001	<0.01
FC12	24	M4	Location 10	12:04	13:04	8.0	8.0	8.0	480	200	0.5	0.001	<0.01

1. Unless otherwise stated, the detection limit is 0.01 fibres/ml.

2. Comments, observations and opinions are outside the scope of UKAS accreditation.

5. For clearance sampling, this report must be read in conjunction with the certificate of reoccupation.

2. Samples collected by the client are evaluated using information provided by the client.

4. Fibres were counted on membrane filter(s) in accordance with the HSE Guidance Note HSG 248.

Equipment Numbers:

Microscope: PCM7

Barometer: BTC 39

Stage Micrometer: WSM 16

Thermometer: BTC 39

Tally Counter: 8/US

Flow Meter: FM 3

Environment:

Temperature (°C): 24

Pressure (mb): 1030

Correction Factor (F): -

Blank Filter

Head: M7

Graticules: -

Fibres: -

Place of Analysis:

Lab HX63 YVK

On Site

Not Lab

Comments

Reassurance air monitoring to determine airborne fiber concentrations around the perimeter of the asbestos contaminated area during ground remediation works

Air test results: Satisfactory.

SIGNATURE:

(on behalf of Envirochem by an authorised signatory)

ENVIROCHEM/FORMS/WORKSHEETS/02/ISSUE07/NOV06

PRINT NAME: Marc Pohl



ENVIROCHEM

Analytical Laboratories Ltd

12 The Gardens
Broadcut, Fareham
Hampshire. PO16 8SS

Ref No: J141128 - FC12

Personal Monitoring Observation Form

Type & Scale of work: Ground remediation to move asbestos contaminated soils.

Purpose of monitoring: (select all that apply)

Checking effectiveness of methods	☐	Providing data for personal exposure records	☐	Confirming appropriate RPE being worn	☒
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General control measures in use: (select all that apply)

Enclosure (under negative pressure)	☐	Partial enclosure	☐	Injection	☐
Gel/Foam	☐	Shadow vacuum	☐	Spraying	☒

Other (Please specify):

Sampling Details:

Operative's Name/job title: Michael Pronger

Type of RPE worn:

Length of time Operative is / has been exposed: 5 hours

Asbestos Product(s) being removed including detail of fixings, size, surface treatment and tools used during works and dust suppression methods being used by operative:

Broken asbestos containing materials mixed into the soil. surface constantly being sprayed with water during works.

General Description of activities being undertaken during sampling:

Driving Bulldozer during ground remediation works.

Is the asbestos in good or bad condition (as per the method statements description): Good

Other factors which may affect the result (eg approximate size of the enclosure, external location, etc):

External

Time weighted average (4 Hour TWA) =
$$\frac{(F1 \times T1) + (F2 \times T2) + \dots (Fn \times Tn)}{4}$$
 TWA not required

Where F = concentration f/ml
T = Time for that exposure, hours and minutes, 1 hr 30 mins = 1.5

Notes: The sampling period must be sufficient to ensure it is fully representative of the work. Sampling periods should be for 4 hours to access the control limit or for the duration of a specific task for shorter duration activities. A minimum sample time of 10 minutes is required to assess the Short Term Exposure Limit. In general, the client is to specify their requirements depending on previous personal air sampling carried out. All information was collected from the method statement or / and the site contact and this information is deemed as accurate / correct for the purpose of this report.

Analyst: Marc Pohl

Signature:



ENVIROCHEM

Analytical Laboratories Ltd

12 The Gardens, Broadcut, Fareham
Hampshire. PO16 8SS

Fibre Counting Report



CLIENT: Blaze Construction

SITE ADDRESS: West End Nursery, Roundstone Lane, Angmering, Littlehampton, BN16
4AX

Our Ref: J141128 - FC12

Your Ref: No Number Stated

SAMPLING PROTOCOL: Personal

SAMPLED BY: Marc Pohl

ANALYSED BY (if different):

DATE OF SAMPLING: 20/4/2018

DATE OF ANALYSIS (if different): -

Filter No.	Pump	Head	Location	Time on	Time off	Flow (litres/min)			Volume (V) litres	Grats (n)	Fibres (N)	Calculation fibres/ml	Reported result fibres/ml
						Flow (start)	Flow (finish)	Flow (used)					
FC4	JCL1	RC17	Operative: Michael Pronger - Bulldozer	09:50	10:50	4	4	4	240	100	0.5	0.002	<0.004

1. Unless otherwise stated, the detection limit is 0.01 fibres/ml.

2. Comments, observations and opinions are outside the scope of UKAS accreditation.

5. For clearance sampling, this report must be read in conjunction with the certificate of reoccupation.

2. Samples collected by the client are evaluated using information provided by the client.

4. Fibres were counted on membrane filter(s) in accordance with the HSE Guidance Note HSG 248.

Equipment Numbers:

Microscope: PCM7

Barometer: BTC 39

Stage Micrometer: WSM 16

Thermometer: BTC 39

Tally Counter: 8/US

Flow Meter: FM 3

Environment:

Temperature (°C): 24

Pressure (mb): 1030

Correction Factor (F): -

Diam. of dust deposit (D) (mm): 22.5

Test Slide (5 bands): Yes/No

W/B Grat diameter (µm): 100

Blank Filter

Head: M7

Graticules: -

Fibres: -

Place of Analysis:

Lab HX63 YVK

On Site

Not Lab

Comments

Personal air monitoring to determine airborne fiber concentrations around the perimeter of the asbestos contaminated area during ground remediation works

SIGNATURE:

(on behalf of Envirochem by an authorised signatory)

ENVIROCHEM/FORMS/WORKSHEETS/02/ISSUE91/000009

PRINT NAME: Marc Pohl



ENVIROCHEM

Analytical Laboratories Ltd

12 The Gardens
Broadcut, Fareham
Hampshire. PO16 8SS

Ref No: J141128 - FC12

Personal Monitoring Observation Form

Type & Scale of work:	Ground remediation to move asbestos contaminated soils.		
Purpose of monitoring: (select all that apply)			
Checking effectiveness of methods	☐	Providing data for personal exposure records	☐
		Confirming appropriate RPE being worn	☒
General control measures in use: (select all that apply)			
Enclosure (under negative pressure)	☐	Partial enclosure	☐
Gel/Foam	☐	Shadow vacuum	☐
Other (Please specify):		Injection	☐
		Spraying	☒
Sampling Details:			
Operative's Name/job title: Roger Garret			
Type of RPE worn:			
Length of time Operative is / has been exposed: 5 hours			
Asbestos Product(s) being removed including detail of fixings, size, surface treatment and tools used during works and dust suppression methods being used by operative:			
Broken asbestos containing materials mixed into the soil. surface constantly being sprayed with water during works.			
General Description of activities being undertaken during sampling:			
Driving Bulldozer during ground remediation works.			
Is the asbestos in good or bad condition (as per the method statements description): Good			
Other factors which may affect the result (eg approximate size of the enclosure, external location, etc):			
External			
$\text{Time weighted average (4 Hour TWA)} = \frac{(F1 \times T1) + (F2 \times T2) + \dots (Fn \times Tn)}{4}$			
TWA not required			
Where F = concentration f/ml			
T = Time for that exposure, hours and minutes, 1 hr 30 mins = 1.5			
Notes: The sampling period must be sufficient to ensure it is fully representative of the work. Sampling periods should be for 4 hours to access the control limit or for the duration of a specific task for shorter duration activities. A minimum sample time of 10 minutes is required to assess the Short Term Exposure Limit. In general, the client is to specify their requirements depending on previous personal air sampling carried out. All information was collected from the method statement or / and the site contact and this information is deemed as accurate / correct for the purpose of this report.			

Analyst: Marc Pohl

Signature

ENVIROCHEM

ARUN DISTRICT COUNCIL



ENVIROCHEM

Analytical Laboratories Ltd

12 The Gardens, Broadcut, Fareham
Hampshire. PO16 8SS

Fibre Counting Report



CLIENT: Blaze Construction

SITE ADDRESS: West End Nursery, Roundstone Lane, Angmering,
Littlehampton

Our Ref: J141129 FC12

Your Ref:

SAMPLING PROTOCOL: Reassurance

SAMPLED BY: S. Hammonds

ANALYSED BY (if different):

DATE OF SAMPLING: 21/04/18

DATE OF ANALYSIS (if different):

Filter No.	Pump	Head	Location	Time on	Time off	Flow (litres/min)			Volume (V) litres	Grats (n)	Fibres (N)	Calculation fibres/ml	Reported result fibres/ml
						Flow (start)	Flow (finish)	Flow (used)					
1	ENV35	SH01	Perimeter of site adjacent entrance to cresswell square	09:15	09:45	16.0	16.0	16.0	480	200	0.5	0.001	<0.01
2	ENV34	SH02	Perimeter of site opposite 19 Cresswell square	09:15	09:45	16.0	16.0	16.0	480	200	1	0.001	<0.01
3	IL3	SH03	Perimeter of site adjacent pedestrian entrance to site office	09:18	09:48	16.0	16.0	16.0	480	200	0.5	0.001	<0.01
4	Mat39	SH04	Perimeter of Site opposite 27 Cresswell square	09:18	09:48	16.0	16.0	16.0	480	200	0.5	0.001	<0.01
5	ENV35	SH05	Perimeter of site adjacent Cresswell Square	09:50	10:20	16.0	16.0	16.0	480	200	0.5	0.001	<0.01
6	ENV34	SH06	Perimeter of site adjacent Cresswell Square	09:50	10:20	16.0	16.0	16.0	480	200	1	0.001	<0.01

1. Unless otherwise stated, the detection limit is 0.01 fibres/ml.

3. Comments, observations and opinions are outside the scope of UKAS accreditation.

5. For clearance sampling, this report must be read in conjunction with the certificate of reoccupation.

2. Samples collected by the client are evaluated using information provided by the client.

4. Fibres were counted on membrane filter(s) in accordance with the HSE Guidance Note HSG 248.

Equipment Numbers:

Microscope: M1

Stage Micrometer: WSM1

Tally Counter: 8/US

Barometer: BTC18

Thermometer: BTC18

Flow Meter: FM18

Environment:

Temperature (°C): 18

Pressure (mb): 1003

Correction Factor (F): N/A

Diam. of dust deposit (D) (mm): 22.5

Test Slide (5 bands): Yes/No

W/B Grate diameter (µm): 100

Blank Filter

Head:

Graticules:

Fibres:

Place of Analysis:

Lab

On Site

Mob Lab

HY62

SRX

Comments

Reassurance air monitoring carried out around Blaze construction site during construction works, to ascertain airborne fibre concentration. Results satisfactory

SIGNATURE:

(on behalf of Envirochem)

ENVIROCHEM/FORMS/WORKSHEETS/02/ISSUE07/NOV06

PRINT NAME: S. Hammonds