

30th September 2024

Mike Richardson London Borough of Havering Town Hall Main Road Romford RMI 3BB

Dear Mike,

RE: AIR MONITOR!NG - Former Waste Site, Launder's Ln, Rainham, RM13 9FL

At your instruction attended site on I" and 29"' August 2024. The purpose of this visit was to carry out Background and Personal air monitoring around the perimeter of the former waste site to determine the potential spread of asbestos fibres to the surrounding areas during a fire event. Air Monitoring was undertaken within Spring Farm Park on I" August and along New Road and Launder's Lane on 29th August.

On I" August the site was smouldering, and the plume was heading to the south-west at time of air monitoring. On 29th August the site was smouldering, and the plume was heading to the south-east at time of air monitoring.

Site address	Former Waste Site, Launder's Ln, Rainham, RMI 3 9FL
Location of works	Spring Farm Park, New Road, Launder's Lane
Scope of works	SEM and PCM samples are taken at regular intervals along within Spring Farm Pack and along New Road and Launder's Lane. Each sample location will have a PCM sample and every other sample location having a SEM sample. Personal sampling was undertaken on the analysts carrying out the air monitoring.

The results of the air samples collected indicated an airborne fibre concentration below 0.0 IO f/ml, the lowest level of detection for the method used and below the clearance indicator level.

SEM certificates noted 'No asbestos fibres were detected during the analysis of any of these samples.'

Please find enclosed:

- I. Certificate of airborne fibre monitoring
- 2. SEM Certificate of Analysis

I trust this is satisfactory but if you require anything further, please do not hesitate to contact me.

Yours sincerely

AIR SAMPLING TEST CERTIFICATE

Project n	o.:	A-10106		н			Slide stora	ge site:				Aug,.,st 2024	Slide storage	lab:				
Client det	tails:	London Borou 3BB	igh of Havering. Town Hall,	Main Road	I. Romford	, RM I	Site details	:										
Contracto	or details:	NIA					Site lab. de	tails:										
Work loo	ation	C nin Eann E	25) (1	Dainham	DM12.000		Address is a	is Site Detai	ls unless s	tated otherwi	ise							
Scope of	works:	Backgroun	d air monitoring within Spri	ng Farm Pa	ark adiacen	t to South	boundarv fe	nce around a	former la	nd fill site to	determine	the spread of respi	rable fibres after a	a fire event.				
S	am le		Location	Pump	Sam I	in times	24hr	Duration	Rate	s of flow 1	/min	Mean flow	Sample	Fibres	Fields		Cale fibre	Reportedresult (flml)
No.	Туре	_	Loouton	no.	Start	Interim	Stop	(mins)	Start	Interim	Stop	(llmin)	volume (I)	1 Ibres	Tields	LOD	cone. f/ml	reporteuresuit (iiiii)
01	Field Blan	k Within Spring South bounds	Farm Park adjacent to	NIA	10:22	NIA	10:22	NIA	NIA	N/A	NIA	NIA	NIA	Not counted	N/A	NIA	NIA	N/A
02	Personal	Upon ad'acent to So	within Spring Farm Park outh bounda fence	2318	10:23	NIA	12:20	117	2.20	NIA	2.20	2.20	257.40	2	200	0.019	0.002	< 0.019
03	Background	d Within Spring South bounda	Farm Parkadjacent to fence	83411	10:26	NIA	11:27	61	8.20	N/A	8.20	8.20	500,20	1.5	192	0.010	0.001	<0.010
04	Background	d Within Spring South bounda	Farm Park adjacent to fence	0863	10:28	NIA	11:28	60	8.20	N/A	8.20	8.20	492.00	2	196	0.010	0.001	< 0.010
OS	Background	Within Spring South bounda	Fann Park adjacent to fence	0869	10:29	NIA	11:30	61	8.20	NIA	8.20	8.20	500.20		192	0.010	0.001	< 0.010
06	Background	d Within Spring South bounda	Farm Park adjacent to fence	0866	10:30	NIA	11:32	62	8.20	NIA	8.20	8.20	508.40		189	0.010	0.001	< 0.010
07	Background	d Within Spring South bound	Farm Park adjacent to a fence	0867	10:32	NIA	11:33	61	8.20	NIA	8.20	8.20	500.20		192	0.010	0.001	< 0.010
08	Background	d Within Spring South bounda	Farm Park adjacent to fence	83411	12:35	NIA	13:35	60	8.20	NIA	8.20	8.20	492.00	2	196	0.010	0.001	< 0.010
09	Background	d Within Spring South bounda	Farm Park adjacent to fence	0863	12:37	NIA	13:38	61	8.20	NIA	8.20	8.20	500,20		192	0.010	0.001	<0.010
10	Background	d Within Spring South bounda	Farm Park adjacent to	0869	12:41	NIA	13:41	60	8.20	NIA	8.20	8.20	492.00	1.5	196	0.010	0.001	< 0.010
11	Backgroun	d Within Spring South bounda	Farm Park adjacent to fence	0866	12:43	NIA	13:45	62	8.20	N/A	8.00	8.10	502.20		192	0.010	0.001	< 0.010
12	Background	d Within Spring South bound	Farm Park adjacent to a fence	0867	12:46	NIA	13:46	60	8.20	NIA	8.00	8.10	486.00		198	0.010	0.001	<0.010
13	Personal	Upon Park ad∙acent	within Spring Farm to South bounda fence	2318	12:47	NIA	13:59	72	2.20	NIA	2.10	2.15	154.80		200	0.032	0.003	<0.032
No leak to	ests were pe	rformed				Co	mments:											
Reported	result(s) is/a	are for airborne i	respirable fibre concentr	ation,										Pi	ressure/Te	mp e uired?	No	
Timer no	,: I	Microscope no.:	Stage micrometer	NPI	L test slide	e Sit	e temp.	Count	er no,:			(Details	of methods use	dcan be fo	und on th	e final pag	e of this report)	1
			no.:	no.:		•0	:							-				
95	56	211n2		_	5019		NIA		TC07	Low	flow mete	er no.:	854	H	ligh now n	neter no.:		664
Baromete	er no.:	Effective filter diameter mm :	Graticule diameter m:	Test 516	t slide bar visible:	nd Sit	e pressure b:	Count	er no.:	res	flow calib sure mb:	ration	NIA	н	igh flow ca re55ure m	alibration lb:		NIA
NI	А	22.3	100		YES		NIA		TC08	Low tem	flow calib . °C:	ration	N/A	H	igh now ca ern .°C:	alibration		NIA
Analyst n	ame(s):		Job title:					Analys signatu	t tre(s):				Dateandtim	e: 02	2/08/2024 1	3:11		













Pro∙ect no.: A-10106 Anal st name:	Re ort no.: Ke for dia ram:	SITE LAYOUT DIAGRAM	Plan not to scale
Area I Enclosure dimensions: Length (metres): N/A	Width (metres): N/A	Height (metres): NIA Area (metres ²): NIA	Volume (metres'): NIA
oints of interest should also be noted	e.g.adjacent areas/rooms, room nu	mbers/descriptions, identifiable permanent structures/locations.	
	C.L	Sprino Familie Ray Groot	



UKAS ACCREDITED METHOD STATEMENT AND DISCLAIMERS:												
Project no.:	A-10106	Report no.:	001									
 Preliminary assessment, visual inspection Asbestos: The analysts' guide. Results are expressed as concentrations sample volume of 480 litres of air throut 	s of fibres per millilitre (f/ml) of air gh a membrane filter with an effe	ising procedures and final assessment are based sampled. The limit of detection of the sampling a ctive diameter of -20 mm and counting a minim	on methods described by HSE Guidance Note HSG248 and counting method is 0.0 IOf/ml (based on a minimum num of 200 fields of view by PCM). Concentrations are									
 calculated to three decimal places and an Opinions and interpretations are outside the 	e reported as shown below: Calculated Results Result <0.010 f/ml Result 0.010 f/ml e scope of i/11.'.'/.'//##'s UKAS a	Report as: <0.010 f/ml										
Personal Sampling The limit of detection for personal samples varies (<u>Min im ImvolulIIfofsampIHL air</u>), G <u>Field3</u>)) r (<u>Ku9.1 volumEe ofs,unpJE'dair</u>), ruat jie'ds	depending on the number of field ^{/ ·} ••II c, [,] 2aranc11 ໍ້ກ ^{d.} rcator ^f or exan	s counted and the volume of air sampled; this can $pI e: ((4-SO)_{160} \times (2-(L'O))_{11:0} O = 0.06$	ו be derived from the following formula:									
Where the calculated fibre concentration for a per If the calculated fibre concentration for a persona	sonal sample is lower than the leval sample is higher than the report	vel of detection as shown in the reported results of detection as shown in the reported results of ed result but below the control limit for the task, t	column, no further action is required. then no further action is required.									

AIR SAMPLING TEST CERTIFICATE

Project no.:	:	A-10106	Report no .:	It		Slidesto	orage site:					Slide storage	lab:	Aug24			
Client details: London Borough of Havering. Town Hall, MainRoad, Romford, RMI S			RMI Site det	Site details: former Waste Site Launder's Ln, Rainham													
Contractor details: N/A			Sitelab.	details:													
	41					Address	is as Site Deta	ails unless	stated other	wise							
VVORK loca	tion:	NewRoad and L	ambs Lane South, Rainha	am, RM 13 ta ha talia		intervale in venious		n Marri D.		dama T ama G	anth a diagont to fam			the encoder	of monimula f	ilana aftana fin	. arrant
Scope of w	OIKS.	Personal and Ba	ackground air monitoring	to be take	n in regular	intervais in various	locations upor	n new Ko	Jad and Taun	uers Lane 3	south adjacent to 101	her waste site to d	etermining	the spread	of respirable i	ibres after a fire	event.
Sa	m le	I	Location	Pump	<u>Sam li</u>	n <u>times</u> 24hr	Duration	Rate	s of flow 1	/min	Mean flow	Sample	Fibres	Fields	LOD	Cale.	Reported result (f/ml)
No.	Туре			no.	Start	Interim Stop	(mins)	Start	Interim	Stop	(1/min)	volume (I)				fibre	
																f/ml	
014	Field Blank	Upon New Roa	ad		08:17	08:17										Not	
OIS	Background	Upon New Roa	ad	83408	08:33	09:3S	62	8.20		8.20	8.20	508.40	1.0	189	0.010	counted 0.001	<0.010
016	Background	Upon New Roa	ad	83409	08:36	09:38	62	8.20		8.20	8.20	508.40	2.0	189	0.010	0.001	<0.010
017	Background	Upon New Roa	ad	83411	08:41	09:44	63	8.20		8.20	8.20	516,60	1.5	186	0.010	0.001	<0.010
018	Background	Upon New Roa	d	83412	08:43	09:45	62	8.20		8.20	8.20	506.40	2.0	189	0.010	0.001	<0.010
019	Background	Upon New Roa	ad	0869	08:47	09:50	63	8.20		8.20	8.20	516.60	2.0	186	0.010	0.001	<0.010
020	Personal	Personal air mo	nitoring upon	2318	08:48	09:50	62	2.20		2.20	2.20	136,40	2.0	200	0.035	0.001	< 0.035
021	Personal	Personal air mo	nitoring upon	2316	09:54	11:06	72	2.20		2.20	2.20	158.40	1.0	200	0.030	0.001	<0.030
022	Background	Upon Launders	Lane South	83408	09:59	11:01	62	8.20		8.20	8.20	508.60	2.5	189	0.010	0.001	<0.010
023	Background	Upon Launders	Lane South	83409	10:00	11:02	62	8.20		8.20	8.20	508.60	2.0	189	0.010	0.010	<0.010
024	Background	Upon Launders	Lane South	834 1 1	10:0 1	11:04	63	8.20		8.20	8.20	516.60	3.0	186	0.010	0.002	<0.010
025	Background	Upon Launders	Lane South	83412	10:02	11:05	62	8.20		8.20	8.20	508.40	1.5	189	0.010	0.001	<0.010
026	Background	Upon Launders	Lane South	0869	10:03	11:06	63	8.20		8.20	8.20	516.60	1.0	186	0.010	0.001	<0.010
No leak tes	sts were perfo	ormed				Comments:				I					I	I	
Reported r	result(s) is/arc	e for airborneres	spirable fibre concentr	ation.					I					Pressu re uire	re/Temp co d?	orrection	No
Timer no.:	: М	icroscope no.:	Stage micrometer no.:	NPL no.:	testslide	Site temp. •C:	Counte	er no.:			(Details o	of methods used	l can be fo	ound on th	ie final page	of this report)	
956	5	211772	П		5019	N/A		TC07	Low	now met	ter no.:	8	54	High fl	owmeterno	.:	664
Barometer	r no.: Ef dia	fective filter	Graticule diameter m:	Tes 5/6	t slide band visible:	d Site pressur mb:	e Counte	er no.:	Low	flowcali	bration pressure (r	nb): N	I/A	High fl mb	owcalibratio	n pressure	NIA
N/A	Ą	22.3	100		YES	N/A		TC08	Low	flow caJi	bration temp. (°C)	: ^	IIA	High fl	owcalibratio	n temp. (°C):	NIA
Analyst na	me(s):		Job title:				Analys signatu	st ure(s):				Date and time	:	04109nc	2◀11,43		
ļ																	



	PHOTOGRA	APH APPENDIX
Project no.:	A-10106	Report no.: 002
Analyst name:		
		08:33, Sample 0 15, Pump 83408, Background air test upon New Road Date/Time: 29/08/2024 08:33
		08:36, Sample 0 16, Pump 83409, Background air test upon New Road Date/Time: 29/08/2024 08:36
		08:41, Sample 0 17, Pump 8341I, Background air test upon New Road Date/Time: 29/08/2024 08:41
		08:43, Sample 0 18, Pump 83412, Background air test upon New Road Date/Time: 29/08/2024 08:43













UK	UKAS ACCREDITED METHOD STATEMENT AND DISCLAIMERS:												
Project no.:	A-10106	Report no.:	002										
 Preliminary assessment, visual inspection, Asbestos: The analysts' guide. 	sampling, fibre counting, dust raising proce	dures and final assessment are based on m	ethods described by HSE Guidance Note HSG248										
Results are expressed as concentrations of fibres per millilitre (f/ml) of air sampled. The limit of detection of the sampling and counting method is 0.01 Of/ml (based on a minimum sample volume of 480 litres of air through a membrane filter with an effective diameter of -20 mm and counting a minimum of 200 fields of view by PCM). Concentrations are calculated to three decimal places and are reported as shown below:													
	Calculated Results Result <0.010 f/ml Result 0.010 f/ml	Report as: <0.010 f/ml Result to 3 decimal places											
Opinions and interpretations are outside the	e scope of #####'s UKAS accreditation.												
Personal Sampling The limit of detection for personal samples varies de	epending on the number of fields counted a	nd the volume of air sampled; this can be d	erived from the following formula:										
$\underbrace{\underbrace{\operatorname{Min.im.Im.volullIf of samplHLair}_{/ktu9.1 volumEe ofs,unpJE'd air}_{/ktu9.1 volumEe ofs,unpJE'd air}}_{/ktu9.1 volumEe ofs,unpJE'd air} G_{,ruat jie'ds}^{Eie1d3})) r^{1'}$	$\tilde{f}_{$	$(2_{101}^{(1)}, (2_{101}^{(1)}, (2_{101}^{(1)}, 0_{101}^{(1)}))) = 0.06$											
Where the calculated fibre concentration for a perso	onal sample is lower than the level of detec	tion as shown in the reported results colum	n, no further action is required.										
If the calculated fibre concentration for a personal s	sample is higher than the reported result bu	it below the control limit for the task, then n	o further action is required.										

CERTIFICAT OF ANALYSIS

ANALYSIS REQUESTED BY:

CONTRACT NO: \$44937

DATEOFISSUE: 29.11.24

DATE ANALYSIS REQUESTED: 25.11.24

DATE ANALYSIS COMPLETED: 29.11.24

SAMPLES: Five airborne dust samples each supplied as one half of a gridded MCE membrane filter.

ANALYSIS REQUESTED: Fibre Counting using Scanning Electron Microscopy (SEM) with fibre identification by Energy Dispersive X-ray Spectroscopy (EDXS)

METHOD:

Each half membrane filter is ashed in a low temperature plasma asher. The residue from the plasma ashing is recovered using filtered, distilled water and filtered through a 25mm, 0.4 μ m pore size polycarbonate filter. A portion of each filter is excised and mounted on a 13mm aluminium stub, coated with gold and examined by SEM. Each filter is searched systematically at 2000X magnification until an area of 1mm² has been examined or 50 whole fibres found. All respirable fibres (aspect ratio >3:1, length >5 μ m and diameter <3 μ m and including fibres in contact with particles >3 μ m diameter) detected are analysed by EDXS and identified as closely as possible, by comparing morphology and composition with standard reference materials. Fibre counting rules based on those of ISO14966:2019 were used.

The method used for analysis is documented in instruction manual No.1 and is based on **International** Standards Organisation (2019), International Standard 14966, Ambient Air: Determination of numerical concentration of inorganic fibrous particles - Scanning electron microscopy method.

Page 1 of 3



RESULTS:

Client Ref: A-10106 - Spring Farm Park

Sample No.	Volume (I)	¹¹¹ No. of Resp. Fibres Found	ℙା No. of Fields Searched	Total Fibres Fibre Cone" (fm/" ¹)	AMX Fibre No. ofResp. Fibres! Fibre Conen (fmt ¹)	CMX Fibre No. of Resp. Fibres! Fibre Cone ¹¹ (fmt ¹)	MMMF No. of Resp. Fibres/ Fibre Cone'; (fm/" ¹)	NAM Fibre No. of Resp. Fibres! Fibre Cone ¹¹ (fmJ-1)
A-10106-002A	480	0.5	150	<0.003*	0/ <0.003*	0/ <0.003*	0.5/<0.003*	0/ <0.003*
A-10106-003A	480	0	150	<0.003*	0/ <0.003*	0/ <0.003*	0/ <0.003*	0/ <0.003*
A-10106-004A	480	0	150	<0.003*	0/ <0.003*	0/ <0.003*	0/ <0.003*	0/ <0.003*
A-10106-005A	480	0	150	<0.003*	0/ <0.003*	0/ <0.003*	0/ <0.003*	0/ <0.003*
A-10106-006A	480	3	150	0.003	0/ <0.003*	0/ <0.003*	3/ 0.003	0/ <0.003*

AMX-Amphibole Asbestos CMX-Chrysotile Asbestos MMMF-Machine Made Mineral Fibres NAM-Non Asbestos Mineral

DETECTION LIMIT

When no fibres of a given type are detected, the fibre concentration can be reported as less than the concentration equivalent to three fibres (the one sided upper 95% confidence limit of the Poisson distribution). Therefore, when 0, 1 or 2 fibres are detected, 2.99 is used in the calculation of fibre concentrations. It expresses the 95% confidence detection limit for airborne fibre concentrations. When a volume of 1440 litres is used the 95% confidence limit is 0.003 fml-1 for the number of fields searched.

CONTRACT NO: S44937 **DATE OF ISSUE:** 29.11.24

COMMENTS:

No asbestos fibres were detected during the analysis of any of these samples.

Any organic fibres present on the original samples would be destroyed during plasma ashing.

Each sample supplied for analysis was only one half of the original filter and this has been factoredinto the calculation of fibre concentrations in order to reflect the level of fibres on the original sample.

<¹J UKAS accreditation for this work is limited to results obtained directly from the analysis. Calculated results based on sampling information provided by the client are out with the scope of this accreditation.

Any opinions and interpretations expressed herein are out with the scope of UKAS accreditation.

Consulting cannot accept responsibility for samples sent for analysis that have been incorrectly collected or despatched.

AUTHORISED

CERTIFICATE OF ANALYSIS

ANALYSIS REQUESTED BY:

 DATE OF ISSUE:
 09.09.24

 CONTRACT NO:
 \$43268

DATE ANALYSIS REQUESTED: 05.09.24

DATE ANALYSIS COMPLETED: 09.09.24

SAMPLES: Six airborne dust samples, each supplied on a gridded MCE membrane filter.

ANALYSIS REQUESTED: Fibre Counting using Scanning Electron Microscopy (SEM) with fibre identification by Energy Dispersive X-ray Spectroscopy (EDXS)

METHOD:

Each membrane filter is ashed in a low temperature plasma asher. The residue from the plasma ashing is recovered using filtered, distilled water and filtered through a 25mm, 0.4μ m pore size polycarbonate filter. A portion of each filter is excised and mounted on a 13mm aluminium stub, coated with gold and examined by SEM. Each filter is searched systematically at 2000X magnification until an area of 1mm² has been examined or 50 whole fibres found. All respirable fibres (aspect ratio >3:1, length >5µm and diameter <3µm and including fibres in contact with particles >3µm diameter) detected are analysed by EDXS and identified as closely as possible, by comparing morphology and composition with standard reference materials. Fibre counting rules based on those of ISO14966:2019 were used.

The method used for analysis is documented in instruction manual No.1 and is based on **International** Standards Organisation (2019), International Standard 14966, Ambient Air: Determination of numerical concentration of inorganic fibrous particles - Scanning electron microscopy method.

Page 1 of 3



RESULTS:

Client Ref: A-10106

Sample No.	Volume (I)	PI No. of Resp. Fibres Found	PI No. of Fields Searched	Total Fibres Fibre Cone" (fmJ- ¹)	AMX Fibre No. ofResp. Fibres/ Fibre Cone" (fmt ¹)	CMX Fibre No. of Resp. Fibres/ Fibre Cone" (fm/-1)	MMMF No. ofResp. Fibres/ Fibre Cone (fmt')	NAM Fibre No. ofResp. Fibres/ Fibre Cone" (fmt ¹)
A-10106-008	492	0	150	<0.002*	Of <0.002*	Of <0.002*	Of <0.002*	Of <0.002
A-10106-009	508	0	150	<0.002*	Of <0.002*	Of <0.002*	Of <0.002*	Of <0.002*
A-10106-010	500	1	150	<0.002*	Of <0.002*	Of <0.002*	1 f <0.002*	Of <0.002*
A-10106-011	492	6	150	0.003	Of <0.002*	Of <0.002*	6f 0.003	0/ <0.002*
A-10106-012	508	2	150	<0.002*	Of <0.002*	Of <0.002*	2/ <0.002*	0/ <0.002*
A-10106-007	Blank	0	150	<0.002*	Of <0.002*	Of <0.002*	Of <0.002	0/ <0.002*

AMX-Amphibole Asbestos CMX-Chrysotile Asbestos MMMF-Machine Made Mineral Fibres NAM-Non Asbestos Mineral

DETECTION LIMIT

When no fibres of a given type are detected, the fibre concentration can be reported as less than the concentration equivalent to three fibres (the one sided upper 95% confidence limit of the Poisson distribution). Therefore, when 0, 1 or 2 fibres are detected, 2.99 is used in the calculation of fibre concentrations. It expresses the 95% confidence detection limit for airborne fibre concentrations. When a volume of 492 litres is used the 95% confidence limit is 0.002 fml⁻¹ for the number of fields searched.

CONTRACT NO: \$43268 **DATE OF ISSUE:** 09.09.24

COMMENTS:

No asbestos fibres were detected during the analysis of any of these samples.

Any organic fibres present on the original samples would be destroyed during plasma ashing.

(¹! UKAS accreditation for this work is limited to results obtained directly from the analysis. Calculated results based on sampling information provided by the client are out with the scope of this accreditation.

Any opinions and interpretations expressed herein are out with the scope of UKAS accreditation.

Consulting cannot accept responsibility for samples sent for analysis that have been incorrectly collected or despatched.

AUTHORISED