ASBESTOS CONSULTANTS NZ LTD

NOVEMBER 13, 2023

CLASS A

Asbestos Clearance Report

97 Links Avenue, Mount Maunganui

TIM NEIL

Commissioned by Asbestos Consultants NZ Ltd

Summary / Preliminary Check

Contractor Name	AR Plus	
Site Supervisor	William Brown	
Friability of ACM	Friable	
Product that has been removed		Textured coating
Asbestos Removal Control Plan and notification		Yes
Enclosure Intact and Operational?		Yes
Negative Pressure Units Operational?		Yes
Hygiene facility present, clean and operational?		Yes
Removal supervisor confirmed enclosure/work area is ready for visual inspection?		Yes

Visual Inspection

Amount of Material removed (total area)	80 m2
Access available to all areas?	YES
Viewing window available?	YES
All ACM removed / Is area free of all ACM?	YES
All visible debris in work area removed?	YES
Adjacent surfaces are free from debris and visible dust?	YES
Any transit routes / waste routes / skips / hygiene facilities free of visible asbestos, debris and waste?	YES
Area surrounding work area free of visible asbestos debris?	YES
Visual Inspection Passed	YES

Air Monitoring

Background and Clearance Air Monitoring Conducted	YES
Background and Clearance Air Monitoring Passed	YES

Reoccupation

Has the enclosure been removed correctly?	YES
Has all materials been removed from site and the area is clean?	YES
Were all ACM products in the scope removed?	YES
Can the area be reoccupied under normal conditions?	YES

Declaration

Result	PASS	Date	10/11/2023
Inspected By	Terry O'Keeffe	Assessor Signature	Reviewers Signature
Reviewed By:	Aaron O'Keeffe		
Approved By	Archie Britz		

Introduction

This report relates to a visual inspection and asbestos air monitoring for ACM (asbestos-containing material) and ARF (Airborne respirable fibre) following the removal of friable asbestos from Complete house at 97 Links Avenue, Mount Maunganui.

We confirm that we have read and accepted the ARCP (Asbestos Removal Control Plan) and Worksafe Notification, and that we are happy with the methods outlined in the documentation that were carried out by AR Plus, who were contracted to conduct the removal works by the PCBU (Person Conducting a Business or Undertaking).

The aim of this report is to provide a comprehensive overview of the results of the visual inspection and asbestos air monitoring, including the background and clearance air monitoring, to confirm the premises are now free from asbestos following the removal of friable asbestos.

Pre-Check – Prior to any asbestos removal starting

Site visit pre removal

Prior to the removal of friable asbestos, our team conducted a thorough pre-check to ensure the safety of everyone involved. We visited the site on 07/11/2023 and checked the integrity of the enclosure, conducted a smoke test to ensure that the negative pressure unit was able to remove the smoke in time, and performed an Omni guard check to ensure that the negative pressure was correct. In addition, we left an asbestos air monitor at the decontamination entry door to ensure the air quality remained safe throughout the removal process.

Four Stage Clearance

Stage 1: Preliminary check

We conducted an initial assessment of the site's condition and degree of completion on 07/11/2023.

Stage 2: Inside the enclosure

A comprehensive visual inspection was conducted within the enclosure and/or work area to ensure thoroughness on 07/11/2023.

Stage 3: Air Monitoring

To ensure that airborne fibres were below trace levels, we conducted clearance air monitoring. This monitoring was essential to detect any invisible asbestos particles. Following the completion of air monitoring, we took swab samples in the removal area and decontamination unit on 07/11/2023

Stage 4: Enclosure dismantled

We conducted a final assessment of the work area after the removal contractors dismantled the enclosure on 10/11/2023, to verify that there was no contamination behind the enclosure post removal.

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Methodology for clearance air monitoring/swab testing

The clearance air monitoring was completed using the following procedures:

1. Asbestos Air Monitoring
    a) Equipment setup: Set up the air monitoring equipment, including the air sampling pump, filter cassette and flow meter.
    b) Area selection: Identify the areas where the asbestos is likely to be present and select the sampling locations accordingly.
    c) Sampling duration: Run the air sampling pump for the desired duration, usually 1-8 hours.
    d) Record keeping: Record the duration of sampling, the location of the sampling point, and any other relevant information.
    e) Double Bag, each air sample separately and label accordingly.
    f) Sample analysis: Send the filter cassette to an IANZ approved laboratory for the analysis to determine the concentration of asbestos fibre in the air sample.
    g) Reporting: Report the findings and provide recommendations for any necessary remediation or additional monitoring.

2. Swab Sampling
    a) Equipment setup: Set up the sampling equipment, including the swabs, gloves, and personal protective equipment.
    b) Area selection: Identify the areas where the asbestos is likely to be present and select the sampling locations accordingly.
    c) Swab collection: Collect the swab samples by wiping the surface with a tape or ghost wetted swab to ensure that any asbestos fibres are captured.
    d) Record keeping: Record the location of the sampling point, the type of surface sampled, and any other relevant information.
    e) Double Bag, each swab sample separately and label accordingly.
    f) Sample analysis: Send the swab samples to an IANZ approved laboratory for the analysis to determine the presence of asbestos fibres.
    g) Reporting: Report the findings and provide recommendations for any necessary remediation or additional monitoring.

Laboratory testing

All testing is carried out by third party approved IANZ accredited laboratory which is Eurofins and uses the latest low powered stereo microscopy and polarized light microscopy techniques. This ensures that the results of the analyses are accurate and reliable. The testing services are designed to identify the exact composition of fibres in the sample, which can provide valuable insight into the health of the environment and the nature of the sample itself. This information can then be used to inform decisions about how to best manage the environment, or to understand the nature of a particular sample.

Laboratory analysis results

Location	Sample Type	Date	Sample Number	Respiratory Fibre Count	Result
Decon entry	Background	10/11/2023	1	1.5	PASS
Lounge	Clearance	10/11/2023	2	1	PASS
Hallway	Clearance	10/11/2023	3	3.5	PASS
Decon / enclosure	Surface Swab	10/11/2023	4	NAD	PASS
Composite ceiling	Surface Swab	10/11/2023	5	NAD	PASS

Summary

Our Asbestos clearance air monitoring returned an ARF (asbestos respirable fibre) level of <0.01 fibres/ml, which is below the recommended detection limit for ARF. Additionally, all swab tests taken returned readings with no asbestos detected.

Based on our reliance of the laboratory analysis, and as far as can be determined, 97 Links Avenue, Mount Maunganui-from where the friable asbestos was removed does not pose any risk to health and safety from exposure to asbestos.

As a competent person with BOHS qualifications IP402 and IP404, I confirm I can conduct asbestos air monitoring, assessments, sampling, surveying and write recommendations according to regulations.

Disclaimer

The inspection report provided by Asbestos Consultants NZ ltd is for the scope of the ACM (asbestos containing material) removal area only. It is the responsibility of the Asbestos Removal Contractor to ensure all ACMs are classified correctly and that the Worksafe Notices and Asbestos Removal Control Plans (ARCP's) are accurately reflected.

Asbestos Consultants NZ Ltd is not responsible for any errors or omissions in the classification of ACM's or in the content of any Worksafe Notices or ARCP's.

Reports and recommendations detailed in our inspection reports are subject to Asbestos Consultants NZ Ltd standard terms and conditions of trade services.

Furthermore, this inspection report is for the sole use of Tim Neil and their intended recipient. Under no circumstances may it be reproduced or used for any other purpose without written consent from Asbestos Consultants NZ Ltd.

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The assessment and this report were completed by:

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Terry O'Keeffe
Company Director
Asbestos Surveyor/Assessor – AA18010016
BOHS IP402 and IP404

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Certificate of Analysis

AIRBORNE FIBRE CONCENTRATION

Client Asbestos Consultants NZ
Client Contact Terry O'Keefe/Aaron O'Keefe/Archie Britz
Phone Number 027 223 4222
Email results@asbestosconsultants.co.nz
Address 5/335 Matakokiri Drive, Tauriko, Tauranga

ilac-MRA ACCREDITED IANZ TESTING LABORATORY

All tests reported herein have been performed in accordance with the laboratory's scope of accreditation

IANZ# 1402

Certificate ID	M-05442	Date Sampled[2]	07/11/2023
Samples Taken By[2]	Terry O'Keefe/Aaron O'Keefe/Archie Britz	Date Sample(s) Received	08/11/2023
Project Reference[2]	N/A	Date Sample(s) Analysed & Issued	08/11/2023
Site Address[2]	97 Links Ave, Mount Maunganui		
Location Slides Counted	Eurofins | Focus 1277a Cameron Road, Gate Pa, Tauranga 3122		

Lab ID	Sample ID[2]	Sample Location[2]	Cowl No.[2]	Sample[2] Duration (min.)	Flow[2] Rate (L/min.)	Volume[2] Sampled (L)	No. Fibres (f)	No. Fields	Conc. f/mL
1	1	Background - Decon entry	644	480	1	480	1.5	100	<0.01
2	2	Clearance - Lounge	679	60	8	480	1	100	<0.01
3	3	Clearance - Hallway	763	60	8	480	3.5	100	<0.01

1. All Fibre counting is in accordance with *NOHSC:3003(2005)* & Eurofins | Focus In-house method NPM-TP01.
2. Flow Rate and sample Duration are client-supplied (outside the scope of our IANZ accreditation). The flow rate reported on this form is in L/min. Data provided and volume sampled by the client is indicated with superscript [2] and may impact the results.
3. Eurofins | Focus did not conduct any sampling, and the data presented are based on the samples submitted by the client.
4. This certificate should be read in its entirety and shall not be reproduced except in full without written approval of the laboratory.

Opinions and interpretations expressed herein are outside the scope of Eurofins | Focus IANZ accreditation

Analytical Notes:

AIRBORNE FIBRE CONCENTRATION RECORDS

Laboratory Use Only:			
NPL Test Slide Number	NPL03	5 Sets of lines visible	YES
Stage Micrometer Number	SM04	Stage Micrometer Calibration Factor	1.0
Microscope Number	Microscope 10		
Measured Graticule Diameter/µm	100		
Corrected Graticule Diameter/µm	100		
Microscope Checks Complete	Yes		

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Certificate of Analysis

AIRBORNE FIBRE CONCENTRATION

METHODOLOGY:

Asbestos Counting	Fibre counting is conducted in accordance with the *National Occupational Health & Safety Commission Guidance Note on the Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition, [NOHSC:3003(2005)]* (MFM) and in-house method NPM-TP01. Unless specifically noted, analysis is undertaken by approved analysts at the base facility. Fibre counts (Fibres/fields) are covered by the facility's IANZ scope of accreditation. The requirements of the NATA Specific Accreditation Criteria, *ISO/IEC 17025 Application Document Life Sciences – Annex, Asbestos sampling and testing, Issued: March 2022,* are realised.

Sample History

Where samples are submitted/analysed over several days, the last extraction date is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time. Client samples are disposed of 3 months after analysis.

Description	Testing Site	Extracted	Holding Time
Asbestos - NOHSC:3003 (2005)	Tauranga	08/11/2023	Indefinite

Comments

Asbestos Counter/Identifier:

Liam Swanson Analyst

Holly Nordstrom

Senior Analyst-Asbestos (Key Technical Personnel)

Final Report – This report replaces any previously issued Report

- Indicates Not Requested

Measurement uncertainty of test data is available on request, or please click here.

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Certificate of Analysis

Client Asbestos Consultants NZ
Client Contact Terry O'Keefe/Aaron O'Keefe/Archie Britz
Phone Number 027 223 4222
Email results@asbestosconsultants.co.nz
Address 5/335 Matakokiri Drive, Tauriko, Tauranga

All tests reported herein have been performed in accordance with the laboratory's scope of accreditation

IANZ# 1402

Certificate ID	T-13015	Date Sampled[2]	
Samples Taken By[2]	Terry (07/11/23)	Date Sample(s) Received	08/11/2023
Project Reference[2]	N/A	Date Sample(s) Analysed & Issued	8/11/2023
Site Address[2]	97 Links Ave, Mount Maunganui		
Location Sample Analysed	Eurofins | Focus 1277a Cameron Road, Gate Pa, Tauranga 3122		

Lab ID	Sample ID[2]	Sample Details[2]	Sample type	Sample size	Fibres Identified
1	4	Swab - Decon Enclosure	Swab	Sufficient	ORF, NAD
2	5	Swab - Composite Ceiling	Swab	Sufficient	ORF, NAD

Opinions and interpretations expressed herein are outside the scope of Eurofins | Focus IANZ accreditation

Analytical Notes	-

Fibre Identification Key:

*	See Analytical Notes	**ORF**	Organic Fibre
CHR	Chrysotile (White Asbestos)	**SMF**	Synthetic Mineral Fibre
AMO	Amosite (Brown / Grey Asbestos)	**NFD**	No Fibres Detected
CRO	Crocidolite – (Blue Asbestos)	**NAD**	No Asbestos Detected
UMF	Unknown Mineral Fibre		

Sample Size Guide:

Sufficient	Sample weight >1 g
Limited	Sample weight between 0.5 g -1 g
Insufficient	Sample weight <0.5 g; small size could misrepresent what is in sampled material. Suggest the client obtain a larger sample.

Analysis Methods:

1. Samples submitted have been analysed to determine the presence of asbestos using stereo microscopy followed by polarised light microscopy (PLM) and dispersion staining (DS) techniques as documented in AS 4964–2004 and in-house method NPM-TP03 for Qualitative Identification of Asbestos in Bulk Samples.
2. Eurofins | Focus did not carry out any sampling, and the data presented are based on the samples submitted. Data supplied by the client is indicated with superscript [2] and may impact the results.
3. This certificate should be read in its entirety and shall not be reproduced except in full without written approval of the laboratory.

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Certificate of Analysis

Methodology

Asbestos Fibre Identification	Conducted in accordance with the Australian Standard AS 4964 – 2004: *Method for the Qualitative Identification of Asbestos in Bulk Samples* and in-house Method NPM – TP03 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.
Unknown Mineral Fibres	Mineral fibres of unknown type, as determined by PLM with DS, may require another analytical technique, such as Electron Microscopy, to confirm unequivocal identity. NOTE: While Actinolite, Anthophyllite and Tremolite asbestos may be detected by PLM with DS, due to variability in the optical properties of these materials, AS 4964 – 2004 requires that these are reported as UMF unless confirmed by an independent technique.
Subsampling Soil Samples	The whole sample submitted is first dried and then passed through a 10 mm sieve followed by a 2 mm sieve. All fibrous matter greater than 10 mm greater than 2 mm and the material passing through the 2 mm sieve are retained and analysed for the presence of asbestos. If the sub 2 mm fraction is greater than approximately 30 g to 60g, then a subsampling routine based on ISO 3082:2009(E) is employed. NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be subsampled for trace analysis in accordance with AS 4964 - 2004.
Bonded asbestos containing material (ACM)	The material is first examined, and any fibres are isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly combined. The resultant material is then further examined in accordance with AS 4964 - 2004. NOTE: Even after disintegration, it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.
Limit of Reporting	The performance limitation of the AS 4964 - 2004 method for non-homogeneous samples is 0.1 g/kg (equivalent to 0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis, this is considered at the nominal reporting limit of 0.01% (w/w). The *National Environment Protection (Assessment of Site Contamination) Measure 1999* (NEPM) screening level of 0.001% (w/w) is intended as an on-site determination, not a laboratory Limit of Reporting (LOR), per se. Examination of a large sample size (e.g., 500 mL) may improve the likelihood of detecting asbestos, particularly Asbestos Fines (AF), to aid assessment against the NEPM criteria.

Sample History

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Description	Testing Site	Extracted	Holding Time
AS4964-2004 and in-house Method NPM – TP03	Tauranga	8/11/2023	Indefinite

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Certificate of Analysis

Comments

Asbestos Counter/Identifier:

Liam Swanson Analyst

Holly Nordstrom

Senior Analyst-Asbestos (Key Technical Personnel)

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

Measurement uncertainty of test data is available on request or please click here.

Photos from 97 Links Avenue

Exclusion zone

Enclosure

Enclosure

Enclosure

Enclosure

Enclosure

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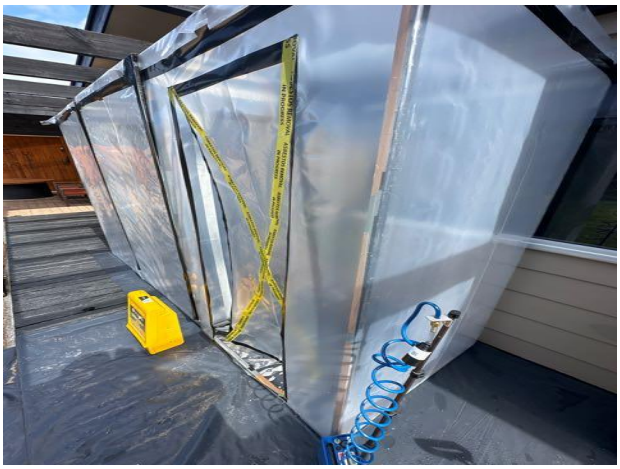
Smoke test



BAM at Decon entry

Removal complete

Removal complete

Removal complete

CAM in hallway

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CAM in lounge

Enclosure removed

Enclosure removed

Enclosure removed

Enclosure removed

Enclosure removed

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END OF REPORT

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