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Asbestos Survey Report for the Food Science Australia Property at Cannon Hill

Food Science Australia

PPK Environment & Infrastructure Pty Ltd

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PPK Environment&Infrastructure

Executive Summary

PPK Environment & Infrastructure Pty Ltd (PPK) was engaged by Food Science Australia to inspect their Cannon Hill property for asbestos-containing materials. The asbestos survey was conducted by **s22** and **s22** and **s22** representing PPK, from Monday, 27 March until Thursday 30 March 2000.

The survey inspection revealed the presence of numerous asbestos-containing materials including:

- asbestos cement wall linings, ceiling linings, infill panels, vertical fascia panels, eaves linings, soffit linings;
- an asbestos cement roof and associated capping,
- asbestos cement debris;
- asbestos sealant to roof nails;
- asbestos cement pipes;
- asbestos cement downpipe collars;
- asbestos gauze mats;
- rope oven seals;
- asbestos insulation to heaterbanks;
- asbestos cement casting to service pit;
- asbestos backing to vinyl sheet;
- gaskets; and
- window putty.

Most of the asbestos materials identified were 'bonded' materials that are considered low risk as the asbestos is unlikely to be released from its firm matrix in significant quantities. However there are several friable asbestos situations that can represent a higher risk to occupants. In particular, the asbestos millboard located around the ductwork heaterbank in the ceiling space of room 11 in laboratory A and residual asbestos millboard around the heaterbank of the airconditioning ducting closest to the double doors of the administration block plant room. These situations are a high risk due to the fact that asbestos can potentially be transported directly into the airborne environment of the occupied spaces. The following recommendations arise from the findings of the survey report:

- 1. Remove the asbestos millboard and residual asbestos around the heaterbanks and along ductwork as soon as possible. The asbestos removal work should be undertaken by licensed asbestos removal contractors under the supervision of an experienced occupational hygienist;
- 2. In the interim, it would be prudent to conduct asbestos fibre air monitoring within representative locations of the site while the air conditioning systems are operating. This will help determine if any measurable concentrations of airborne asbestos fibres are being transported into the occupied areas of the buildings;
- 3. Remove the asbestos gauze mats from the laboratories and replace with a non-asbestos alternative;
- 4. Encapsulate the asbestos roof and associated capping of Building E Solvent Store to prevent further deterioration;
- 5. If the wall cavities cost of the Slaughter floor and Preparation Area C are accessed by personnel on a regular basis, consideration should be given to removing the asbestos cement debris identified in these areas;
- 6. Those bonded asbestos materials that are in good condition and currently serving a useful purpose can remain in-situ. The in-situ materials should be reassessed on a regular basis (every 2 years);
- 7. Occupants and maintenance personnel should be informed of the presence of all hazardous materials in their workplace. It is recommended that at least one copy of the asbestos containing materials register is made available to staff and contractors on site;
- 8. Asbestos-containing materials that are likely to be impacted on during scheduled refurbishment works should be removed prior to the commencement of work. Ideally, the removal of asbestos should be undertaken by licensed contractors and managed by experienced occupational hygienists; and
- 9. Currently some asbestos situations are labelled. Consideration should be given to labelling all remaining asbestos situations to further minimise potential disturbances of the asbestos by signposting its presence.

1. Introduction

PPK Environment and Infrastructure Pty Ltd (PPK) was engaged by Food Science Australia to undertake a non-destructive asbestos survey of their property located at the corner of Wynnum and Creek Roads, Cannon Hill.

The purpose of the asbestos survey was to identify the presence of asbestos-containing materials in the abovementioned premises and to prepare a register of both asbestos and non-asbestos materials identified during the survey.

asbestos survey between Monday 27 March and Thursday 31 March, 2000.

The results of the asbestos survey are provided in a tabular format which is designed to provide readily available information about the presence of asbestos hazards in the workplace. Laboratory reports of sample analysis are contained in Appendix A and photographic illustrations recorded during the survey are shown in Appendix B. Supplementary information on asbestos-related health effects is provided in Appendix C.

No one section, or part of a section, of this report should be taken as giving an overall idea of this report. Each section must be read in conjunction with the whole of this report, including its appendices and attachments.

2. Methodology

2.1 Sampling Strategy

The identification of asbestos-containing materials involved visually inspecting all of the accessible areas and collecting small representative samples of suspect materials. Where identical suspect materials were detected at different locations, visual confirmation only may have been made rather than additional sample collection.

At the time each sample was collected, several observations were recorded about the suspect material including:

- location;
- condition;
- accessibility;
- friability; and
- dimension.

2.2 Sample Analysis

Samples collected during the asbestos survey were analysed using polarised light microscopy in conjunction with dispersion staining techniques. The results of all sample analysis were interpreted by qualified personnel.

2.3 Areas Not Accessed

The following areas were either not accessed or only partially accessed during the asbestos survey:

The areas not accessed include:

- internals to a number of pieces of equipment in Building S1; and
- lift motor room in Laboratory A.

The areas partially accessed include:

• ceiling space to Laboratory A, Laboratory B and Administration Building.

3. Limitations

During the course of a normal non-destructive asbestos survey it may not be possible to identify the presence of all asbestos-containing materials. In many instances, asbestos materials may be present in areas that cannot be accessed without implementing destructive sampling techniques. Such areas may include:

- wall cavities;
- beneath floor coverings;
- penetrations in solid walls and concrete floor slabs;
- pipework in wall cavities;
- integral parts of boilers, pumps, machinery, plant and pipework;
- fire dampers and reheat units within air conditioning ducts;
- fire doors; and
- inaccessible service ducts/risers.

Should demolition or major refurbishment work be planned, it is recommended that a destructive asbestos survey be undertaken prior to the commencement of these works.

Unless otherwise mentioned, samples were not taken of suspect materials that may have placed the surveyor at risk of injury or death at the time of the survey. High risk asbestos situations that may be identified during a survey include brake linings, electrical mounting boards and electrical wire insulation, to name but a few. Where it is not possible to collect a sample of a suspect material, a record of all such materials shall be included in the asbestos register as 'suspect materials'.

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4. **Results**

The results of the asbestos survey are presented in a tabular format. Table 4.1 shows all of the asbestos-containing materials identified during the survey including suspect materials. Table 4.2 shows all of the non-asbestos materials as determined during laboratory analysis.

To assist with the interpretation of the results the following legend provides detailed meaning of abbreviations and terms that may appear in both tables.

Legend

| Level | Refers to the floor level on which the material is located. |
|---------------|---|
| Room | Refers to the room name/number (if available) in which the materials is located. |
| Location | Refers to the precise location of the material within a room e.g. infill panel below window on southern wall. |
| Material | Refers to the type of material identified e.g. vinyl tile, fibre cement sheeting, fibrous insulation, etc. Material does not refer to the use or application of the material. This is covered in 'Application'. |
| Application | Refers to the use or application of the material e.g. floor covering, soffit lining, pipe lagging, etc. |
| Condition | Refers to the physical state or condition of the material. |
| | Good – material shows no, or very minor, sign of damage and/or deterioration |
| | Fair – material shows signs of minor damage and/or deterioration |
| | Poor – material shows sign of significant damaged and/or deterioration or the material is partly or wholly unserviceable for its intended use. |
| Sealed | Refers to whether or not the material is encapsulated with a sealant such as paint, wall paper, etc. concealing its exposed surfaces. |
| Size | Usually refers to the surface area or length of the material expressed as either square metres (m^2) or linear metres (Lin m). The dimension is an estimate only and should not be relied upon as an exact measure. |
| Asbestos Type | Refers to the type of asbestos identified during laboratory analysis. There are three main commercial asbestos types: chrysotile (CH-white), amosite (A-brown or grey), and crocidolite (C-blue). |
| | The term NAD which appears only in the non-asbestos register means no asbestos was detected during laboratory analysis. |

| Materials shown as 'Similar to' have not been sampled but appear the same as other materials previously sampled. |
|---|
| 'Suspect' refers to those materials not sampled (perhaps for safety reasons) and which are not similar to previously sampled materials. |
| Refers to the level of risk posed by the material based on its condition, friability, accessibility and other factors such as exposure to disturbance. The three levels of risk, based on the above factors are defined as High (H), Medium (M) and Low (L) in accordance with the following definitions: |
| High: Friable (un-bonded) asbestos material has deteriorated significantly. The material is readily accessible and prone to further disturbance |
| OR |
| Unsealed friable asbestos material located in air conditioning systems. |
| Medium: Minor deterioration of the asbestos material is evident and/or the material is prone to mechanical disturbance due to routine building activity and/or maintenance. |
| |

Low: Asbestos material shows no or very minor signs of damage/deterioration. Routine accessibility is unlikely to cause significant deterioration, or the material is adequately sealed.

- Photo Denotes the photographic illustrations number of the material included in Appendix B.
- Additional Refers to any other relevant comments that may assist with the future management of the material.

4.1 Register of Asbestos-Containing Materials – Laboratory A

| Sample No | Level | Room | Location | Material | Application | Cond. | Sealed | Size | Asbestos Type | Risk | Photo |
|-----------------------|--------------|---|--|-----------------------|-----------------------|-------|--------|-------------------|------------------|------|-------|
| FS047 | Roof | External | North side of roof access shed | Fibre cement pipe | Flue pipe | Fair | No | < 1m ² | CH,A | Low | 1 |
| Additional Comment | H section or | n top of flue pip | e. | | | | | | | | |
| Similar to FS047 | Roof | External | North side of roof | Fibre cement pipe | Flue pipe | Fair | No | 2 lin m | CH,A | Low | 1 |
| Additional Comment | | | | | | | | | | | |
| FS064 | 1-2 | External | Southern and northern wall of laboratory A wing | Fibre cement sheeting | Infill panel | Good | Yes | 145m ² | CH,A | Low | 4 |
| Additional Comment | Labelled wit | th asbestos warr | ning labels. | | | | | | | | |
| Similar to FS064 | 2 | External | North and south side of building | Fibre cement sheeting | Vertical fascia panel | Good | Yes | 50m ² | CH,A | Low | 4 |
| Additional Comment | Labelled wit | th asbestos warr | ning labels. | | | | | · | · | | · |
| Similar to FS064 | 2 | External | North and south side of building | Fibre cement sheeting | External eaves | Good | Yes | 60m ² | CH,A | Low | 4 |
| Additional Comment | | | | | | | | | | | |
| FS048 | 1 | Main corridor and two side corridors | Throughout | Vinyl sheet backing | Floor covering | Good | Yes | 55m ² | СН | Low | 2 |
| Additional Comment | White and fa | awn fleck colou | ir. | | | | | | | | |

Register of Asbestos-Containing Materials – Laboratory A - Continued

| Sample No | Level | Room | Location | Material | Application | Cond. | Sealed | Size | Asbestos Type | Risk | Photo |
|-----------------------|--------------|------------------|---|-----------------------|----------------------|-------|--------|-----------------|------------------|------|-------|
| FS049 | 1 | 111 | Western wall and western end of northern wall | Fibre cement sheeting | Wall cladding | Good | Mostly | 6m² | СН | Low | |
| Additional Comment | Small area w | vhere unsealed. | | | | | | | | | |
| Similar to FS049 | 1 | 112 | Southern end of eastern wall and southern wall | Fibre cement sheeting | Wall cladding | Good | Yes | 6m² | СН | Low | |
| Additional Comment | | | | | | | | | | | |
| Similar to FS049 | 1 | Main corridor | Panel to west of entry door to room112 | Fibre cement sheeting | Infill panel | Good | Yes | 2m ² | СН | Low | |
| Additional Comment | | | | | | | | | | | |
| FS050 | 1 | 112 | Lower bulkhead on southern side of ceiling | Fibre cement sheeting | Bulkhead | Good | Yes | 4m² | СН | Low | |
| Additional Comment | | | | | | | | | | | |
| FS051 | 1 | 115 | Lower bulkhead on southern side of ceiling | Fibre cement sheeting | Bulkhead | Good | Yes | 4m ² | СН | Low | 3 |
| Additional Comment | | | | | | | | | | | |
| FS052 | 1 | 111 | Heaterbank on supply air duct in ceiling space of room 111 | Millboard | Lining to heaterbank | Fair | No | 2m ² | СН | High | |
| Additional Comment | | | | | | | | | | | |

Register of Asbestos-Containing Materials – Laboratory A - Continued

| Sample No | Level | Room | Location | Material | Application | Cond. | Sealed | Size | Asbestos Type | Risk | Photo |
|-----------------------|--------------|---|---|-------------------------|---------------------------|-------|--------|--------------------|------------------|------|-------|
| Suspect | 1 | Switch | Switch cupboard DB 1 | Resinous board | Electrical mounting board | Good | No | <1m ² | Unknown | Low | |
| Additional Comment | | | | | | | | | | | |
| Similar to FS048 | 2 | Main corridor and two side corridors | Throughout | Vinyl sheeting | Floor covering | Good | No | 55m² | СН | Low | |
| Additional Comment | White and fa | awn fleck colou | ır. | | | | | | | | |
| Suspect | 2 | Switch | Switch cupboard DB 2 | Resinous board | Electrical mounting board | Good | No | < 1m ² | Unknown | Low | |
| Additional Comment | | | | | | | | | | | |
| FS058 | 2 | Female toilet 219 | North east corner of roof space | Fibre cement sheeting | Packing material | Fair | No | < ½ m ² | CH,A | Low | |
| Additional Comment | Fibre cemen | t sheeting pack | ing material likely to | be encountered in other | areas of the roof space. | | | | | | |
| F\$059 | 2 | Dark room 9 | East end of southern wall and some panels around doorway | Fibre cement sheeting | Infill panels | Fair | No | < 1m ² | CH,A | Low | |
| Additional Comment | | | | | | | | | | | |

Register of Asbestos-Containing Materials – Laboratory A - Continued

| Sample No | Level | Room | Location | Material | Application | Cond. | Sealed | Size | Asbestos Type | Risk | Photo | | |
|-----------------------|--------------|--|--|-----------------------|---|-----------|--------|--------------------|------------------|--------|-------|--|--|
| FS060 | 2 | 14 | On airconditioning system attached to ceiling on north end | Fibre cement sheeting | Backing board to airconditioning system | Good | No | < 1m ² | CH,A | Low | | | |
| Additional Comment | 4 small pane | 4 small panels. | | | | | | | | | | | |
| Similar to FS060 | 2 | 12 | On airconditioning system attached to ceiling on north end | Fibre cement sheeting | Backing board to airconditioning system | Good | No | < 1m ² | CH,A | Low | | | |
| Additional Comment | | | | | | · · · · · | | | | | | | |
| FS061 | 2 | 4 | Southern bench of laboratory 4 | Insulation material | Insulated gauze mat | Poor | No | < ½ m ² | СН | Medium | | | |
| Additional Comment | Other insula | Other insulated gauze mats likely to be encountered throughout laboratories. | | | | | | | | | | | |

Register of Asbestos-Containing Materials – Laboratory B

| Sample No | Level | Room | Location | Material | Application | Cond. | Sealed | Size | Asbestos Type | Risk | Photo |
|-----------------------|--|----------------------------------|---|---------------------------|-------------------------|-----------|------------------|--------------------|------------------|---------------|----------|
| FS074 | 1-2 | External | Southern and northern wall of laboratory B | Fibre cement sheeting | Infill panels | Good | Yes | 145m ² | СН | Low | |
| Additional Comment | Labelled wit | h asbestos warı | ning labels. | | | | | | | | |
| Similar to FS074 | 2 | External | Southern and northern wall of laboratory B | Fibre cement sheeting | Vertical fascia panel | Good | Yes | 50m ² | СН | Low | |
| Additional Comment | Labelled with asbestos warning labels. | | | | | | | | | | |
| Similar to FS074 | 2 | External | Southern and northern wall of laboratory B | Fibre cement sheeting | External eaves | Good | Yes | 60m ² | СН | Low | |
| Additional Comment | | | | | | | | | | | |
| FS073 | Roof | External | North west corner above toilets | Fibre cement piping | Flue pipe | Fair | No | 1 lin m | CH,A | Low | |
| Additional Comment | Extends thro | ugh roof. | • | | | | | | | | |
| FS069 | 1 | 147 | Supply air ducting in bulkhead on west side of room | Millboard | Debris | Poor | No | < 10m ² | CH,A | High | 5 |
| Additional Comment | Extent unkno bulkhead wi | own. Asbestos ithin room 147. | millboard debris ma | y extend further down the | e ductwork. This materi | al may ha | ve originated fr | om the redun | dant uninsula | ted heaterban | k in the |

Register of Asbestos-Containing Materials – Laboratory B - Continued

| Sample No | Level | Room | Location | Material | Application | Cond. | Sealed | Size | Asbestos Type | Risk | Photo |
|-----------------------|--------------|----------------------|--|---------------------------|--------------------------|-------|--------|-------------------|------------------|--------|-------|
| FS070 | 1 | 142 | Against west wall in cupboard under sink | Fibre cement sheeting | Backing panel | Good | No | < 1m ² | СН | Low | |
| Additional Comment | | • | | | | | | | | | |
| FS071 | 1 | Storeroom off 150 | Southern wall | Fibre cement sheeting | Wall cladding | Good | Yes | 15m ² | СН | Low | |
| Additional Comment | | | | | | | | | | | |
| Similar to FS071 | 1 | 150 sick room | Northern wall | Fibre cement sheeting | Wall cladding | Good | Yes | 15m ² | СН | Low | |
| Additional Comment | | | | | | | | | | | |
| Similar to FS068 | 1 | 148 | "Labmaster" oven on bench in centre | Rope | Oven door seal | Good | No | 2 lin m | СН | Medium | |
| Additional Comment | | | | | | | | | | | |
| FS068 | 1 | 147 | "Labmaster" oven in south west corner | Rope | Oven door seal | Good | No | 2 lin m | СН | Medium | 6 |
| Additional Comment | | | | | | | | | | | |
| Similar to FS068 | 2 | 258 | "Labmaster" oven on eastern bench | Rope | Oven door seal debris | Poor | No | < ½ m² | СН | High | |
| Additional Comment | The door sea | al has been rem | oved, however mine | or amounts of asbestos de | bris remain. | | | | | | |

Register of Asbestos-Containing Materials – Administration – Building C

| Sample No | Level | Room | Location | Material | Application | Cond. | Sealed | Size | Asbestos Type | Risk | Photo |
|-----------------------|------------|-----------------|---|-----------------------|-----------------------|-------|--------|------------------|------------------|------|-------|
| FS075 | 1-2 | External | On western side of building | Fibre cement piping | Flue pipe | Good | Yes | 9 lin m | СН | Low | |
| Additional Comment | | | | | | | | | | | |
| Similar to FS074 | 1-2 | External | Southern wall | Fibre cement sheeting | Infill panels | Good | Yes | 12m ² | СН | Low | |
| Additional Comment | Labelled w | ith asbestos wa | arning labels. | | | | | | | | |
| Similar to FS074 | 2 | External | Southern wall above main entry awning | Fibre cement sheeting | Soffit lining | Good | Yes | 5m ² | СН | Low | 4 |
| Additional Comment | | | | | | | | | | | |
| Similar to FS074 | 2 | External | Southern wall external to room 232 | Fibre cement sheeting | Soffit lining | Good | Yes | 2m ² | СН | Low | 4 |
| Additional Comment | | | | | | | | · | · · · · · | | · |
| Similar to FS074 | 2 | External | All perimeter walls | Fibre cement sheeting | Vertical fascia panel | Good | Yes | 45m ² | СН | Low | 4 |
| Additional Comment | Labelled w | ith asbestos wa | arning labels. | | | | | · | · · · · · | | · |
| Similar to FS074 | 2 | External | Cream coloured panels behind reception area | Fibre cement sheeting | Infill panels | Good | Yes | 2m ² | СН | Low | |
| Additional Comment | Labelled w | ith asbestos wa | arning labels. | • | · | | | · | · | | · |

Register of Asbestos-Containing Materials – Administration – Building C - Continued

| Sample No | Level | Room | Location | Material | Application | Cond. | Sealed | Size | Asbestos Type | Risk | Photo |
|-----------------------|-----------------------------|--------------------------------------|---|--------------------------|--|--------------|-----------------|----------------------|------------------|----------------|-------|
| FS090 | Ground | Reception | Ceiling space – runs along southern wall | Fibre cement piping | Redundant piping | Good | No | 3 lin m | CH,A,C | Low | 7 |
| Additional Comment | | | | | | | | | | | |
| Similar to FS048 | 1 | Lunchroom canteen | Throughout | Vinyl sheeting | Floor covering | Good | No | 150m ² | СН | Low | |
| Additional Comment | White and fa | awn fleck colou | r. | | | | | | | | |
| Similar to FS074 | 1 | Lunchroom canteen | Lower half of the north and west walls | Fibre cement sheeting | Infill panels | Good | Yes | 15m ² | СН | Low | |
| Additional Comment | | | - | - | - | | | | | | |
| FS087 | 1 | Plant room | Heaterbank on airconditioning ducting (Phoenix vent fans, serial no. W389) adjacent to double doors | Millboard | Residual original insulation to heaterbank inside supply air duct | Poor | No | < 1⁄2 m ² | СН | High | 8 |
| Additional Comment | Heaterbank inside the du | insulation is gen uct below the h | nerally a non-asbest eater elements. | os material, however som | e residual original asbe | stos insulat | tion remains. A | sbestos debri | s was also not | ted in several | areas |
| FS088 | 1 | Plant room | Stored on shelving in the northern end of plant room | Resinous material | Gasket | Good | No | < 1m ² | СН | Low | |
| Additional Comment | Some equip | ment in plantro | oms may contain sin | nilar gaskets. | | | | | | | |

Register of Asbestos-Containing Materials – Administration – Building C - Continued

| Sample No | Level | Room | Location | Material | Application | Cond. | Sealed | Size | Asbestos Type | Risk | Photo |
|-----------------------|--------------|---------------------|---|-----------------------|------------------------|-------|--------|-------------------|------------------|------|-------|
| Similar to FS074 | 1 | Lunch room | Lower half of eastern and northern walls | Fibre cement sheeting | External infill panels | Good | Yes | 15m ² | СН | Low | |
| Additional Comment | Labelled wit | h asbestos warr | ning labels. | | | | | | | | |
| FS091 | 1 | Reception | Northern ceiling space section adjacent to infill panels | Fibre cement sheeting | Debris | Fair | No | < 1m ² | CH,A | Low | |
| Additional Comment | | | | | | | | | | | |
| Similar to FS074 | 2 | Northern foyer | Lower half of southern and northern wall of foyer | Fibre cement sheeting | Infill panels | Good | Yes | 8m ² | СН | Low | |
| Additional Comment | Labelled wit | h asbestos warr | ning labels. | | | | | | | | |
| Similar to FS074 | 2 | Eastern verandah | Along western and northern wall | Fibre cement sheeting | Infill panels | Good | Yes | 28m ² | СН | Low | |
| Additional Comment | Building ext | erior. | | | | | | | · | | |
| FS076 | 2 | Northern foyer | Southern wall of bulkhead | Fibre cement sheeting | Infill panel | Good | Yes | 3m ² | СН | Low | |
| Additional Comment | Bulkhead for | rming lower see | ction of ceiling. | | | | | | | | |
| Similar to FS074 | 2 | Eastern verandah | Throughout verandah | Fibre cement sheeting | Soffit | Good | Yes | 90m ² | СН | Low | |
| Additional Comment | Building ext | erior. | | | | | | | | | |
| | Labelled wit | n asbestos warr | ning labels. | | | | | | | | |

| Sample No | Level | Room | Location | Material | Application | Cond. | Sealed | Size | Asbestos Type | Risk | Photo |
|-----------------------|--------------|--|---|-----------------------|---|-------|--------|-------------------|------------------|--------|-------|
| Similar to FS019 | Mezzanine | Storeroom / attic above northern laboratory / office | All walls | Fibre cement sheeting | Wall lining | Poor | No | 24m ² | СН | Medium | 15 |
| Additional Comment | Severely dan | naged on weste | rn wall. | | | _ | | | | | |
| Similar to FS019 | Mezzanine | Storeroom / attic above northern laboratory / office | At western end of storeroom above | Fibre cement sheeting | Debris | Fair | No | < 1m ² | СН | Medium | |
| Additional Comment | | | | | | | | | | | |
| FS021 | Mezzanine | Storeroom / attic above northern laboratory / office | On redundant Selbys beaker warmer in north east corner | Insulation material | Insulation around beaker supports | Fair | No | < 1m ² | СН | Low | |
| Additional Comment | | | | | | | | | | | |
| FS022 | Mezzanine | Storeroom / attic above northern laboratory / office | South east corner of storeroom / attic | Textile | Internal insulation to redundant flexible ducting | Poor | No | 2 lin m | СН | Medium | 16 |
| Additional Comment | | | | | | | | | | | |

| Sample No | Level | Room | Location | Material | Application | Cond. | Sealed | Size | Asbestos Type | Risk | Photo |
|-----------------------|--------------|------------------------------------|--|-----------------------|----------------------|-------|----------------|-------------------|------------------|------|-------|
| Similar to FS028 | Mezzanine | Archive storerooms | Throughout | Fibre cement sheeting | Ceiling lining | Good | Yes | 27m ² | СН | Low | |
| Additional Comment | | | | | | | | | | | |
| FS029 | Mezzanine | Archive storerooms | All internal walls | Fibre cement sheeting | Wall lining | Good | Yes | 65m ² | СН | Low | |
| Additional Comment | Labelled wit | h asbestos warı | ning labels. | | | | | | | | |
| Similar to FS029 | Mezzanine | Archive rooms | East, south and possibly west walls | Fibre cement sheeting | External wall lining | Good | East wall only | 28m ² | СН | Low | |
| Additional Comment | Labelled wit | h asbestos warı | ning labels. | | | | | | | | |
| FS032 | Mezzanine | Plant room | North west corner leading into cold storage area | Insulation material | Fire door (hatch) | Good | No | < 1m ² | CH,A | Low | 14 |
| Additional Comment | Not sealed a | t top of door. | | | | | | | | | |
| Similar to FS019 | Ground | Northern laboratory / office | Eastern external wall to laboratory / office and storeroom above laboratory / office | Fibre cement sheeting | Wall lining | Good | Yes | 10m ² | СН | Low | |
| Additional Comment | | | | | | | | | | | |

| Sample No | Level | Room | Location | Material | Application | Cond. | Sealed | Size | Asbestos Type | Risk | Photo |
|-----------------------|-------------|------------------------------------|-------------------------------------|-----------------------|----------------|-------|--------|--------------------|------------------|--------|-------|
| FS019 | Ground | Northern laboratory / office | North, east & western walls | Fibre cement sheeting | Wall lining | Good | Yes | 20m ² | СН | Low | |
| Additional Comment | | | | | | | | | | | |
| F\$020 | Ground | Northern laboratory / office | Throughout | Fibre cement sheeting | Ceiling lining | Good | Yes | 15m ² | СН | Low | |
| Additional Comment | | | | | | | | | | | |
| Similar to FS023 | Ground | Slaughter floor | Throughout | Fibre cement sheeting | Ceiling lining | Good | Yes | 220m ² | CH,A | Low | |
| Additional Comment | | | | | | | | | | | |
| FS023 | Ground | Viscera work up room | Throughout | Fibre cement sheeting | Ceiling lining | Good | Yes | 30m ² | CH,A | Low | |
| Additional Comment | | | | | | | | | | | |
| FS100 | Ground | - | Wall cavity east of slaughter floor | Dust | Debris | Poor | No | < ½ m ² | СН | Medium | |
| Additional Comment | Asbestos ce | ment debris on | upper ledge at north | end of wall cavity. | | | | | | | |
| FS103 | Ground | - | Wall cavity east of slaughter floor | Fibre cement fragment | Debris | Poor | No | < ½ m ² | СН | Medium | |
| Additional Comment | Asbestos ce | ment debris on | upper ledge in centr | e of wall cavity. | | | | | | | |

| Sample No | Level | Room | Location | Material | Application | Cond. | Sealed | Size | Asbestos Type | Risk | Photo |
|-----------------------|--------------|------------------|--|-----------------------|--------------------|-------|--------|--------------------|------------------|--------|-------|
| FS104 | Ground | - | Wall cavity between Preparation Area "C" and corridor | Dust | Debris | Poor | No | < ½ m ² | СН | Medium | |
| Additional Comment | Asbestos cer | ment debris on | upper ledge in centr | e of wall cavity. | | | | | | | |
| FS107 | Ground | - | Wall cavity east of slaughter floor | Dust | Debris | Poor | No | < ½ m ² | СН | Medium | |
| Additional Comment | Asbestos cer | ment debris on | upper ledge of wall | cavity. | | | | | | | |
| FS108 | Ground | - | Wall cavity between Preparation Area "C" and corridor | Fibre cement fragment | Debris | Poor | No | < ½ m ² | СН | Medium | |
| Additional Comment | Asbestos cer | ment debris on | floor in wall cavity. | | | | | | | | |
| FS025 | Ground | Workshop | Along northern half of eastern wall | Fibre cement sheeting | Infill panel | Good | Yes | 7m ² | CH,A | Low | |
| Additional Comment | Labelled wit | th asbestos warı | ning labels. | | | · · · | | · | | | |
| FS026 | Ground | Workshop | Store of asbestos in south east corner | Textile | Seal | Good | No | <10 lin m | СН | Low | 18 |
| Additional Comment | | | | | | | | | | | |
| F\$027 | Ground | Workshop | Store of 2 gasket rolls in south west corner | Gasket | Stored gasket roll | Good | No | 10m ² | СН | Low | 17 |
| Additional Comment | | | | | | | | | | | |

| Sample No | Level | Room | Location | Material | Application | Cond. | Sealed | Size | Asbestos Type | Risk | Photo |
|-----------------------|---------------|---|---|----------------------------|---------------------------|-------|--------|------------------|------------------|------|-------|
| FS028 | Ground | Timber office adjacent to northern entry to 185 | Throughout | Fibre cement sheeting | Ceiling lining | Good | Yes | 12m ² | СН | Low | |
| Additional Comment | | | | | | | | | | | |
| FS030 | Ground | 182 & 183 | Throughout | Fibre cement sheeting | Ceiling lining | Good | Yes | 45m ² | СН | Low | |
| Additional Comment | Includes sec | ondary storeroc | om behind 183. | _ | | | | | | | |
| Suspect | Ground | Plant room | Electrical backing board to brine cooler switchboard | Resinous board | Electrical mounting board | Good | No | <1m ² | Unknown | Low | |
| Additional Comment | | | | | | | | | | | |
| Similar to FS030 | Ground | 183 | Covering glass of rear door | Fibre cement sheeting | Infill panel | Good | Yes | 1m ² | СН | Low | |
| Additional Comment | Door to seco | ondary storeroo | m behind 183. | | | | | | | | |
| FS033 | Ground | 181 and adjacent storeroom | Throughout | Fibre cement sheeting | Ceiling lining | Fair | Yes | 21m ² | CH,A | Low | |
| Additional Comment | Small amou | nt of damage in | storeroom. | | | | | | | | |
| FS025 | Ground | Corridor adjacent to 161 – 159 and toilets | Lower half of eastern wall | Fibre cement sheeting | Infill panel | Good | Yes | 25m ² | CH,A | Low | |
| Additional | Including cle | eaners cage, on | e unsealed panel at | southern end of cleaners o | cage. | | | | | | |
| Comment | Labelled wit | h asbestos warr | ning labels. | | | | | | | | |

| Sample No | Level | Room | Location | Material | Application | Cond. | Sealed | Size | Asbestos Type | Risk | Photo |
|-----------------------|---------------|--------------------|--|-----------------------|----------------|-------|--------|------------------|------------------|------|-------|
| Similar to FS033 | Ground | 164-166 | Throughout | Fibre cement sheeting | Ceiling lining | Good | Yes | 60m ² | CH,A | Low | |
| Additional Comment | | | | | | | | | | | |
| Similar to FS033 | Ground | 163-162 | Throughout | Fibre cement sheeting | Ceiling lining | Good | Yes | 28m ² | CH,A | Low | |
| Additional Comment | | | | | | | | | | | |
| Similar to FS025 | Ground | 163-162 | Eastern walls below windows | Fibre cement sheeting | Infill panels | Good | Yes | 6m ² | CH,A | Low | |
| Additional Comment | | | | | | | | | | | |
| Similar to FS033 | Ground | 161 | Throughout | Fibre cement sheeting | Ceiling lining | Good | Yes | 28m ² | CH,A | Low | |
| Additional Comment | | | | | | | | | | | |
| F\$037 | Ground | 161 | Throughout beneath carpet in some areas | Vinyl tiles | Floor covering | Good | Yes | 28m ² | СН | Low | |
| Additional Comment | Brown with | white fleck. | | | | | | | | | |
| Similar to FS025 | Ground | 161 | Eastern wall of office area | Fibre cement sheeting | Infill panels | Good | Yes | 2m ² | CH,A | Low | |
| Additional Comment | 2 infill pane | ls. | | | | | | | | | |
| Similar to FS040 | Ground | Plumbing cavity | Plumbing cavity between male and female toilets | Fibre cement piping | Flue pipe | Good | No | 2 lin m | СН | Low | |
| Additional Comment | Pipe rises ve | ertically and ext | tends through roof. | | | | | | | | |

| Sample No | Level | Room | Location | Material | Application | Cond. | Sealed | Size | Asbestos Type | Risk | Photo |
|-----------------------|--------------|--------------------|--|-----------------------|-------------------------------|-------|--------|--------------------|------------------|------|-------|
| Similar to FS025 | Ground | External | Along lower eastern wall | Fibre cement sheeting | Infill panels | Good | Yes | 12m ² | CH,A | Low | |
| Additional | 12 along ea | stern wall. | | | | | | | | | |
| Comment | Labelled wit | th asbestos war | ning labels. | | | | | | | | |
| Similar to FS023 | Ground | External | Above eastern roller door on northern side | Fibre cement sheeting | Soffit lining | Good | No | < 1 m ² | CH,A | Low | 11 |
| Additional Comment | | | | | | | | | | | |
| Similar to FS040 | Ground | Roof (external) | Above plumbing cavity between male and female toilets | Fibre cement piping | Flue pipe | Good | Yes | 2 lin m | СН | Low | |
| Additional Comment | | | | | | | | | | | |
| FS040 | Ground | External | Adjacent to western roller door on north side | Fibre cement piping | Flue pipe | Good | No | 4 lin m | СН | Low | |
| Additional Comment | Sealed on Io | ower 1m sectio | n only. | | | | | | | | |
| FS041 | Ground | External | Western wall adjacent to holding yard adjacent to containers | Fibre cement casting | Casting to downpipe collar | Poor | No | < 1m ² | CH,A | Low | 9 |
| Additional Comment | 4 along wes | tern wall. | | | | · | | | | | |

| Sample No | Level | Room | Location | Material | Application | Cond. | Sealed | Size | Asbestos Type | Risk | Photo |
|-----------------------|-------------|-------------------|--|-----------------------|----------------|-------|--------|-------------------|------------------|------|-------|
| Similar to FS025 | Ground | External | Along northern β of western wall | Fibre cement sheeting | External eaves | Good | Yes | 14m ² | CH,A | Low | 10 |
| Additional Comment | | | | | | | | | | | |
| Similar to FS040 | Ground | External | Western wall | Fibre cement piping | Flue pipe | Good | Yes | 5 lin m | СН | Low | |
| Additional Comment | | | | | | | | | | | |
| Similar to FS027 | Ground | Boiler shed | Simons steam iron in boiler shed | Resinous material | Gasket | Good | No | < 1m ² | СН | Low | |
| Additional Comment | | | | | | | | | | | |
| Similar to FS025 | Ground | Workshop store | Western external wall to workshop store | Fibre cement sheeting | Wall cladding | Good | Yes | 30m ² | CH,A | Low | |
| Additional Comment | Labelled wi | th asbestos war | ning labels. | | | | | | | | |
| Similar to FS033 | Ground | External | Northern end of corridor outside toilets | Fibre cement sheeting | Soffit lining | Good | Yes | 1m ² | CH,A | Low | |
| Additional Comment | | | | | | | | | | | |

Register of Asbestos-Containing Materials – Building E – Solvent Store

| Sample No | Level | Room | Location | Material | Application | Cond. | Sealed | Size | Asbestos Type | Risk | Photo |
|-----------------------|--------------|------------|--|----------------------------------|-----------------|-------|--------|-------------------|------------------|--------|-------|
| FS042 | Ground | Throughout | Throughout | Fibre cement sheeting | Ceiling lining | Good | Yes | 9m ² | CH,A | Low | |
| Additional Comment | | | | | | | | | | | |
| FS043 | Ground | External | Eastern wall | Fibre cement sheeting | Infill panels | Good | Yes | 2m ² | СН | Low | |
| Additional Comment | 2 panels – I | abelled. | | | | | | | | | |
| FS044 | Roof | External | Roof | Corrugated fibre cement sheeting | Roof cladding | Fair | No | 10m ² | CH,A | Medium | 13 |
| Additional Comment | | | | _ | | | | | | | |
| Similar to FS044 | Roof | External | Around roof perimeter | Fibre cement casting | Capping to roof | Fair | No | 12 lin m | CH,A | Medium | 13 |
| Additional Comment | | | | | | | | | | | |
| FS045 | Roof | External | Roof - nails across roof surface | Resinous material | Sealant | Fair | No | < 1m ² | СН | Medium | |
| Additional Comment | | | | | | | | | | | |

Register of Asbestos-Containing Materials – Building S1

| Sample No | Level | Room | Location | Material | Application | Cond. | Sealed | Size | Asbestos Type | Risk | Photo |
|-----------------------|--------------|-----------------|---------------------------|-----------------------------|------------------------|-------|--------|--------------------|------------------|------|-------|
| FS015 | Ground | Store | IMP Extruder | Gasket | Gasket | Good | No | < ½ m ² | СН | Low | |
| Additional Comment | "IMP Extrud | er" equipment s | stored in building. | | | | | | | | |
| FS017 | Ground | Annexe | "Alfa-Laval" equipment | Gasket | Gasket | Good | No | < ½ m ² | СН | Low | |
| Additional Comment | "Alfa-Laval" | hopper attache | d to "Sew-Eurodrive | " electric motor, stored in | open annexe of buildir | ıg. | | | | | |

Register of Asbestos-Containing Materials – Block G

| Sample No | Level | Room | Location | Material | Application | Cond. | Sealed | Size | Asbestos Type | Risk | Photo |
|-----------------------|----------|---------------------|--|-----------------------|-----------------------|-------|--------|-------------------|------------------|------|-------|
| FS009 | Ground | Throughout building | Throughout building | Fibre cement sheeting | Ceiling lining | Good | Yes | 100m ² | СН | Low | |
| Additional Comment | | · | | | | | | · | · | | |
| FS011 | Ground | External | Southern side of building | Fibre cement sheeting | External infill panel | Good | Yes | 6m ² | СН | Low | |
| Additional Comment | | · | | | | | | · | · | | |
| FS012 | Ground | External | Eastern end of northern wall and eastern wall | Fibre cement piping | Flue pipe | Good | Mostly | Total 8 lin m | CH,A | Low | |
| Additional Comment | 2 pipes. | | | | | | | | | | |
| FS013 | Ground | External | Base of south wall adjacent to access to room 194 | Fibre cement casting | Service pit | Fair | No | < 1m ² | CH,A | Low | |
| Additional Comment | | | | | | | | | | | |
| FS014 | Roof | External | Small section along east wall above toilets | Fibre cement sheeting | External eaves | Good | Yes | 2m ² | СН | Low | |
| Additional Comment | | | | | | | | | | | |

Register of Asbestos-Containing Materials – Block H

| Sample No | Level | Room | Location | Material | Application | Cond. | Sealed | Size | Asbestos Type | Risk | Photo |
|-----------------------|--------------|----------------|--|---------------------------|--------------------------------|--------------|----------|-------------------|------------------|------|-------|
| FS001 | Ground | All rooms | Throughout building | Fibre cement sheeting | Ceiling lining | Good | Yes | 150m ² | СН | Low | |
| Additional Comment | | | | | | | | | | | - |
| FS003 | Ground | External | 1 on north wall, 1 on south wall extending above roof | Fibre cement piping | Flue pipe | Fair | Mostly | Total 8 lin m | CH,A | Low | |
| Additional Comment | North and s | outh walls not | sealed above roof lev | vel on both pipes and nor | thern pipe partly seal | ed below roo | f level. | | | | |
| FS004 | Ground | External | Base of southern end towards eastern end | Fibre cement casting | Service pit | Fair | No | 2m ² | CH,A | Low | |
| Additional Comment | | | | · | | | | | | | |
| F\$005 | Ground | External | Southern and northern perimeter walls | Fibre cement sheeting | External eaves | Fair | Mostly | 24m ² | СН | Low | |
| Additional Comment | Paint cracki | ng in areas. | | | | | | | | | |
| FS006 | Ground | External | Along south wall | Putty | Sealant around windows | Fair | No | 10 lin m | СН | Low | |
| Additional Comment | | | | | | | | | | | |
| Similar to FS001 | Ground | External | Soffit over western entry door | Fibre cement sheeting | Soffit lining to western entry | Good | Yes | 1m ² | СН | Low | |
| Additional Comment | | | | | | | | | | | |

Register of Asbestos-Containing Materials – Generator Shed

| Sample No | Level | Room | Location | Material | Application | Cond. | Sealed | Size | Asbestos Type | Risk | Photo |
|-----------------------|--------|------|-----------------|----------------|---------------------------|-------|--------|-------------------|------------------|------|-------|
| Suspect | Ground | Shed | On western wall | Resinous board | Electrical mounting board | Good | Yes | < 1m ² | Unknown | Low | |
| Additional Comment | | | | | | | | | | | |

Register of Asbestos-Containing Materials – Igloo Building

| Sample No | Level | Room | Location | Material | Application | Cond. | Sealed | Size | Asbestos Type | Risk | Photo |
|-----------------------|--------|--------------------------------|--|-----------------------|-------------------------------|-------|--------|-------------------|------------------|------|-------|
| FS096 | Ground | South east end exit | Exit/entrance south of building | Fibre cement sheeting | Wall lining | Good | Yes | 10m ² | СН | Low | |
| Additional Comment | | | | | | | | | | | - |
| FS096 | Ground | South east end exit | Exit/entrance south of building | Fibre cement sheeting | Ceiling lining | Good | Yes | 5m ² | СН | Low | |
| Additional Comment | | | | | | | | | | | |
| Similar to FS096 | Ground | South east exit of shed | South west of building | Fibre cement sheeting | Wall lining | Good | Yes | 10m ² | СН | Low | |
| Additional Comment | | | | | | | | | | | |
| Similar to FS096 | Ground | South east exit of shed | South west of building | Fibre cement sheeting | Ceiling lining | Good | Yes | 5m ² | СН | Low | |
| Additional Comment | | | | | | | | | | | - |
| Similar to FS098 | Ground | Shed toilets | Toilets near north entrance doors | Fibre cement sheeting | Wall lining | Good | Yes | 25m ² | CH,A | Low | |
| Additional Comment | | | | | | | | | | | - |
| FS099 | Ground | Outside gate 15, shed 15 | North east side of gate 15 entrance door | Fibre cement sheeting | Castings to base of down pipe | Good | No | < 1m ² | СН | Low | |
| Additional Comment | | | | | | | | | | | |

Register of Asbestos-Containing Materials – Igloo Building - Continued

| Sample No | Level | Room | Location | Material | Application | Cond. | Sealed | Size | Asbestos Type | Risk | Photo |
|-----------------------|--------|--------------------------------|--|---------------------|-------------|-------|--------|---------|------------------|------|-------|
| Similar to FS099 | Ground | Outside gate 15, shed 15 | North east side of gate 15 entrance door | Fibre cement piping | Down pipe | Good | No | 1 lin m | СН | Low | |
| Additional Comment | | | | | | | | | | | |

4.2 Register of Non-Asbestos Containing Materials – Laboratory A

| Sample No | Level | Room | Location | Material | Application | Condition | Sealed | Size | Result | Additional Comments |
|---------------------|-------|-----------------------------------|--|-----------------------|----------------------------------|-----------|--------|-------------------|--------|---------------------|
| FS053 | 1 | 115 | Heating mantle | Textile | Lining to heating mantle | Fair | No | <1m ² | NAD | |
| FS054 | 1 | Male toilet | Southern wall of toilet | Fibre cement sheeting | Wall cladding | Good | Yes | 5m ² | NAD | Painted pink. |
| FS055 | 2 | 213 | Around vent above door | Fibre cement sheeting | Infill panel | Good | Yes | < 1m ² | NAD | |
| FS056 | 2 | Cleaners room 217 | Throughout | Vinyl tiles | Floor covering | Fair | No | 3m ² | NAD | |
| FS057 | 2 | Female toilet 219 | Throughout locker area | Vinyl tiles | Floor covering | Good | No | 8m ² | NAD | |
| FS059 | 2 | Dark room 9 | East end of southern wall and some panels around doorway | Fibre cement sheeting | Infill panels | Good | Yes | 2m ² | NAD | |
| FS062 | 2 | 13 | Above entry to room | Fibre cement sheeting | Doors, walls and soffit of riser | Good | Mostly | 2m ² | NAD | Sealed externally. |
| FS063 | 2 | 3 | On bench in lab | Insulation material | Heating mantle | Good | No | < 1m ² | NAD | |
| Similar to FS055 | 2 | Photocopy area / lift lobby | Behind photocopier | Fibre cement sheeting | Infill panel | Good | Yes | 2m ² | NAD | |

Register of Non-Asbestos Containing Materials – Laboratory B

| Sample No | Level | Room | Location | Material | Application | Condition | Sealed | Size | Result | Additional Comments |
|---------------------|-------|--|--|-----------------------|--------------------------|-----------|--------|-------------------|--------|---------------------------|
| FS065 | 1 | Main corridor and side corridors | Intermittently throughout | Vinyl tiles | Floor covering | Good | No | 20m ² | NAD | Fawn coloured. |
| FS066 | 1 | Main corridor and side corridors | Intermittently throughout | Vinyl tiles | Floor covering | Good | No | 20m ² | NAD | |
| Similar to FS065 | 1 | 154 cleaners room in female toilet | Throughout | Vinyl tiles | Floor covering | Fair | No | 2m ² | NAD | |
| Similar to FS065 | 1 | 155 female toilet | Throughout locker area | Vinyl tiles | Floor covering | Good | No | 9m ² | NAD | |
| FS067 | 1 | 151 | Southern wall adjacent to freezer northern walls | Fibre cement sheeting | Wall cladding | Good | Yes | 18m ² | NAD | |
| Similar to FS067 | 1 | 151 | Two service riser boxes on eastern and western ends of southern wall | Fibre cement sheeting | Infill panels | Good | Yes | 4m ² | NAD | |
| Similar to FS067 | 1 | 151 | On ceiling along southern wall | Fibre cement sheeting | Infill panels | Good | Yes | 5m ² | NAD | 3 panels. |
| Similar to FS065 | 2 | 262 | Throughout | Vinyl tiles | Floor covering | Fair | No | 1.5m ² | NAD | Fawn coloured. |
| Similar to FS067 | 2 | Male toilet | Service riser box on southern wall adjacent to entry to toilet area | Fibre cement sheeting | Infill panels | Fair | Yes | 2m ² | NAD | |
| FS072 | 2 | Main corridor | Throughout | Fibre cement sheeting | Perforated ceiling tiles | Good | Mostly | 50m ² | NAD | Unsealed in perforations. |

Register of Non-Asbestos Containing Materials – Administration – Building C

| Sample No | Level | Room | Location | Material | Application | Condition | Sealed | Size | Result | Additional Comments |
|--------------|-------|---------------------|--|-----------------------|---|-----------|--------|-------------------|--------|---------------------|
| FS080 | 1 | Plantroom | In airconditioner 7 unit in north west corner | Millboard | Insulation to airconditioning heater inside supply air duct heaterduct | Fair | No | 2m ² | NAD | |
| FS081 | 1 | Plantroom | In airconditioner 7 unit on south west corner above exposed heater elements | Millboard | Insulation to airconditioning heater inside supply air duct heaterduct | Fair | No | < 1m ² | NAD | |
| FS082 | 1 | Plantroom | In carrier airconditioner unit serial number 1127 (labelled E) | Millboard | Insulation to airconditioning heater inside supply air duct heaterduct | Fair | No | 2m ² | NAD | |
| FS083 | 1 | Plantroom | Heaterbank on ducting to Phoenix vent fans serial number W389 – north zone | Millboard | Insulation to airconditioning heater inside supply air duct heaterduct | Fair | No | 2m ² | NAD | Hatch labelled D. |
| FS084 | 1 | Plantroom | Heaterbank on ducting to Phoenix vent fans serial numbert W389 – south zone | Millboard | Insulation to airconditioning heater inside supply air duct heaterduct | Fair | No | 2m ² | NAD | Hatch labelled B. |
| FS085 | 1 | Plantroom | Heaterbank on ducting tto carrier Weathermaker airconditioner unit adjacent to door | Millboard | Insulation to airconditioning heater inside supply air duct heaterduct | Fair | No | 2m ² | NAD | Hatch labelled A. |
| FS086 | 1 | Plantroom | Heaterbank on ducting to Phoenix ventilating fans serial number W389 adjacent to double access doors | Millboard | Insulation to airconditioning heater inside supply air duct heaterduct | Fair | No | 2m ² | NAD | Hatch labelled C. |
| FS089 | 1 | External | Piece leaning against western wall adjacent to solvent store | Fibre cement sheeting | Debris | Good | No | 1m ² | NAD | |
| FS092 | 1 | Kitchen / office | Centre of north wall | Fibre cement sheeting | Infill panel | Good | Yes | < 1m ² | NAD | |

Register of Non-Asbestos Containing Materials – Administration – Building C - Continued

| Sample No | Level | Room | Location | Material | Application | Condition | Sealed | Size | Result | Additional Comments |
|---------------------|-------|---------------------|---|-----------------------|-----------------------|-----------|--------|------------------|--------|---------------------|
| FS077 | 2 | PABX room 246 | Eastern wall around airconditioner | Fibre cement sheeting | Infill panel | Good | No | 1m ² | NAD | |
| Similar to FS077 | 2 | Eastern verandah | External panels around airconditioner adjacent to PABX room | Fibre cement sheeting | External infill panel | Good | No | 1m ² | NAD | |
| FS078 | 2 | 232 | In two cupboards on northern wall (fridge area and storage) | Vinyl tiles | Floor covering | Good | No | 2m ² | NAD | White colour. |
| FS079 | 2 | Southern foyer | Throughout foyer area and centre landing | Vinyl tiles | Floor covering | Good | No | 35m ² | NAD | |
| Similar to FS077 | 2 | 244 | Around airconditioning unit on eastern wall | Fibre cement sheeting | Infill panel | Good | No | <1m ² | NAD | |
| Similar to FS077 | 2 | Eastern verandah | External panel around airconditioner adjacent to room 244 | Fibre cement sheeting | External infill panel | Good | No | <1m ² | NAD | |

Register of Non-Asbestos Containing Materials – Meat Research Laboratory – Building D

| Sample No | Level | Room | Location | Material | Application | Condition | Sealed | Size | Result | Additional Comments |
|---------------------|--------|-----------------------------------|---|-----------------------|-----------------------|-----------|--------|--------------------|--------|--|
| FS024 | Ground | Office and storage corridor | Throughout | Fibre cement sheeting | Ceiling lining | Good | Yes | 26m ² | NAD | |
| FS031 | Ground | 182 and 183 | Throughout | Vinyl tiles | Floor covering | Good | No | 32m ² | NAD | Dark brown colour. |
| FS034 | Ground | 166 | Throughout locker room area | Vinyl tiles | Floor covering | Good | No | 6m ² | NAD | |
| Similar to FS034 | Ground | 165 | Throughout | Vinyl tiles | Floor covering | Poor | No | 2m ² | NAD | |
| FS036 | Ground | 166 and 164 | Top of walls in locker room of 166 and 164 | Fibre cement sheeting | Vertical fascia panel | Good | Yes | 6m ² | NAD | |
| FS038 | Ground | 161 | North and south walls of office area and north wall of archive area | Fibre cement sheeting | Wall lining | Good | Yes | 30m ² | NAD | |
| FS101 | Ground | - | Wall cavity east of slaughter floor | Dust | Debris | Poor | No | < ½ m ² | NAD | Debris on floor at north end of wall cavity. |
| FS102 | Ground | - | Wall cavity east of slaughter floor | Insulation | Ceiling insulation | Fair | No | < 1m ² | NAD | Glass fibre insulation material protruding to centre area of wall cavity ~ 2.5m above the floor. |
| FS105 | Ground | - | Wall cavity east of slaughter floor | Dust | Debris | Poor | No | < ½ m ² | NAD | Debris on floor at south end of wall cavity. |
| FS106 | Ground | - | Wall cavity east of slaughter floor | Dust | Debris | Poor | No | < ½ m ² | NAD | Debris on ledge at south end of wall cavity. |
| FS039 | Ground | External | South of airconditioning unit | Fibre cement sheeting | External infill panel | Good | Yes | <1m ² | NAD | |

Register of Non-Asbestos Containing Materials – Demountable Z1

| Sample No | Level | Room | Location | Material | Application | Condition | Sealed | Size | Result | Additional Comments |
|--------------|--------|-------------|------------|----------------|----------------|-----------|--------|-----------------|--------|---------------------|
| FS046 | Ground | Kitchenette | Throughout | Vinyl sheeting | Floor covering | Good | No | 5m ² | NAD | |

Register of Non-Asbestos Containing Materials – S1

| Sample No | Level | Room | Location | Material | Application | Condition | Sealed | Size | Result | Additional Comments |
|--------------|--------|-------|----------|---------------------|-----------------|-----------|--------|--------------------|--------|---------------------|
| FS016 | Ground | Store | Furnace | Insulation material | Door insulation | Good | No | < ½ m ² | NAD | |

Register of Non-Asbestos Containing Materials – Block G

| Sample No | Level | Room | Location | Material | Application | Condition | Sealed | Size | Result | Additional Comments |
|--------------|--------|------|--|-----------------------|----------------|-----------|--------|------------------|--------|---------------------|
| FS008 | Ground | 194 | Throughout room 194 | Vinyl tiles | Floor covering | Poor | No | 32m ² | NAD | |
| FS010 | Ground | 195 | Internally west of access door to room 194 | Fibre cement sheeting | Infill panel | Fair | Yes | 1m ² | NAD | |

Register of Non-Asbestos Containing Materials – Block H

| Sample No | Level | Room | Location | Material | Application | Condition | Sealed | Size | Result | Additional Comments |
|---------------------|--------|----------|---------------------------------------|-----------------------|--|-----------|--------|--------------------|--------|---|
| FS002 | Ground | Room 1 | Suspended from ceiling in room centre | Millboard | Insulation to airconditioning heater in airconditioning unit | Fair | No | <1m ² | NAD | Electric heaterbank in south end of airconditioning unit. |
| Similar to FS002 | Ground | Room 2 | Suspended from ceiling in room centre | Millboard | Insulation to airconditioning heater in airconditioning unit | Fair | No | < 1m ² | NAD | |
| Similar to FS002 | Ground | Room 3 | Suspended from ceiling in room centre | Millboard | Insulation to airconditioning heater in airconditioning unit | Fair | No | <1m ² | NAD | |
| FS007 | Ground | External | Southern wall | Fibre cement sheeting | Infill panel | Good | No | < 1 m ² | NAD | |

Register of Non-Asbestos Containing Materials – Igloo Building

| Sample No | Level | Room | Location | Material | Application | Condition | Sealed | Size | Result | Additional Comments |
|---------------------|--------|--|---------------------------------------|-----------------------|-----------------|-----------|--------|--------------------|--------|---------------------|
| FS093 | Ground | Store | South end | Lino | Floor covering | Good | Yes | 20m ² | NAD | |
| Similar to FS093 | Ground | Locker | Adjacent to offices | Lino | Floor covering | Good | Yes | 20m ² | NAD | |
| FS094 | Ground | Male toilets | Adjacent to offices south side | Fibre cement sheeting | Wall lining | Good | Yes | 16m ² | NAD | |
| Similar to FS094 | Ground | Female toilets | Adjacent to office hallway south side | Fibre cement sheeting | Wall lining | Good | Yes | 16m ² | NAD | |
| FS095 | Ground | Surrounding offices | Surrounding around offices | Fibre cement sheeting | Wall lining | Good | Yes | 1252m ² | NAD | Factory. |
| FS097 | Ground | South end outside offices in shed | South east end of factory | Fibre cement sheeting | Stored sheeting | Good | Yes | 8m ² | NAD | |

Register of Non-Asbestos Containing Materials – Site Grounds

| Sample No | Level | Room | Location | Material | Application | Condition | Sealed | Size | Result | Additional Comments |
|--------------|--------|------|-------------------------------|----------|------------------|-----------|--------|-----------------|--------|---------------------|
| FS018 | Ground | - | Furnaces north of building S1 | Brick | Refractory brick | Fair | No | 5m ² | NAD | |

5. Discussion

The survey inspection of the Food Science Australia property revealed the presence of numerous asbestos-containing materials. These include:

- asbestos cement wall linings, ceiling linings, infill panels, vertical fascia panels, eaves linings, soffit linings;
- an asbestos cement roof and associated capping,
- asbestos cement debris;
- asbestos sealant to roof nails;
- asbestos cement pipes;
- asbestos cement downpipe collars;
- asbestos gauze mats;
- rope oven seals;
- asbestos insulation to heaterbanks;
- asbestos cement casting to service pit;
- asbestos backing to vinyl sheet;
- gaskets; and
- window putty.

Asbestos products are commonly classified as being either 'bonded' or 'friable' materials. These terms refer to the asbestos products structure, where bonded materials have firmly bound structures and friable materials have loosely bound structures.

Most of the asbestos situations identified at Food Science Australia were bonded materials, including an asbestos cement roof and associated capping on Building E, asbestos cement wall linings, ceilings, soffit panels, piping, window putty, gaskets etc throughout the site. These materials generally pose a low risk to health as the asbestos is bound into a matrix thereby preventing the release of asbestos fibres unless it is disturbed. Prevention of any such disturbance is reduced in some situations by the use of asbestos warning labels. Most of the bonded asbestos materials identified during the survey were either in good or fair condition and therefore are at low risk of releasing airborne asbestos fibres into the working atmosphere.

However, several friable asbestos materials were also identified during the survey. These include asbestos millboard to a heater bank in the ceiling space of Room 111 in laboratory A and residual asbestos millboard around the heaterbank of the airconditioning ducting closest to the double doors on the southern wall of the plant room of the Administration Building.

While residual asbestos millboard material was not visually identified in the other electrical heaterbanks within the Administration Building plantroom, it is possible such material is present behind the existing non-asbestos insulating material.

A small amount of residual asbestos millboard material was also identified in a length of duct work within the bulkhead in room 147, level 1, block B. This was adjacent to a decommissioned electrical heaterbank within the duct. The extent of the residual asbestos material could not be determined as it was not feasible to gain access to all areas inside the airconditioning ductwork system.

These situations represent a potentially high risk to the health of occupants due to the fact that the asbestos is present within an air plenum, thereby potentially releasing asbestos into the airborne environment. In addition to this, the residual millboard in the plant room has been partially covered over with a non asbestos equivalent. Presumably asbestos removal has been undertaken previously, however some residual asbestos material remains.

In addition, there is a likelihood that asbestos millboard debris has been dislodged and has been transported further up the ducting. This is perhaps represented by the fact that some asbestos debris was located in the supply air ductwork in the bulkhead on the western side of room 147, on level 1 of laboratory B.

The asbestos roof and associated flashing and capping of Solvent Store E while essentially an asbestos cement product can be considered friable material given it's constant exposure to the elements and its unsealed status.

While any fibres being released from the substrata will dissipate rapidly into the external atmosphere, thereby reducing the risk directly to personnel, it is important that precautions are taken to prevent further deterioration and minimise the release of airborne fibres.

Fragments of asbestos cement sheet were identified amongst the dust and debris on the floor and upper ledges within the wall cavities east of the slaughter floor and preparation area C. It appears as if asbestos cement materials were demolished in these locations in the past. The on site visual inspections and collection and analysis of dust samples from these wall cavity areas did not however reveal the presence of any residual friable asbestos pipe lagging materials.

No asbestos materials were identified in the following buildings:

Building F – Solvent Store;

Building Z1 – Demountable 1;

Building Z1 – Demountable 2; and

Building S2 – Tin shed store.

The lift motor room in laboratory A was not accessed during the asbestos survey and may contain unidentified asbestos materials. As such, caution should be exercised when working in, or around this area.

6. **Recommendations**

- 1. Remove the asbestos millboard and residual asbestos around the heaterbanks and along ductwork as soon as possible. The asbestos removal work should be undertaken by licensed asbestos removal contractors under the supervision of an experienced occupational hygienist;
- 2. In the interim, it would be prudent to conduct asbestos fibre air monitoring within representative locations of the site while the air conditioning systems are operating. This will help determine if any measurable concentrations of airborne asbestos fibres are being transported into the occupied areas of the buildings;
- 3. Remove the asbestos gauze mats from the laboratories and replace with a non-asbestos alternative;
- 4. Encapsulate the asbestos roof and associated capping of Building F solvent store to prevent further deterioration;
- 5. If the wall cavities east of the Slaughter floor and Preparation Area C are accessed by personnel on a regular basis, consideration should be given to removing the asbestos cement debris identified in these areas.
- 6. Those bonded asbestos materials that are in good condition and currently serving a useful purpose can remain in-situ. The in-situ materials should be re-assessed on a regular basis (every 2 years);
- 7. Occupants and maintenance personnel should be informed of the presence of all hazardous materials in their workplace. It is recommended that at least one copy of the asbestos containing materials register is made available to staff and contractors on site;
- 8. Asbestos-containing materials that are likely to be impacted on during scheduled refurbishment works should be removed prior to the commencement of work. Ideally, the removal of asbestos should be undertaken by licensed contractors and managed by experienced occupational hygienists; and
- 9. Currently some asbestos situations are labelled. Consideration should be given to labelling all remaining asbestos situations to further minimise potential disturbances of the asbestos by signposting its presence.

7. References

It is recommended that the following documents be read in conjunction with this report.

- i. Worksafe Australia, Code of Practice and Guidance Notes: Asbestos 1988.
- ii. Queensland Workplace Health and Safety Act 1995.
- iii. Queensland Workplace Health and Safety Regulation 1997.
- iv. Division of Workplace Health and Safety Advisory Standard for Asbestos Removal Work 1999.
- v. Division of Workplace Health and Safety Advisory Standard for A/C Sheeting 1999.

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Appendix A

Certificates of Analysis

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Appendix **B**

Photographs



Photograph 1:

Asbestos cement "H" section of flue piping on the roof of Laboratory A. A second asbestos cement flue pipe can also be seen in the background.



Photograph 2:

Asbestos backed vinyl sheeting located in the central corridor and two main side corridors of Laboratory A. Similar type vinyl sheet was identified in the lunchroom of Administration Block C.





Photograph 3:

Asbestos cement bulkhead on southern side of ceiling of Room 112 in Laboratory A



Photograph 4:

Asbestos cement infill panels, and vertical fascia panels identified with asbestos warning labels along the southern walls of Laboratory A and Administration building. Asbestos cement eaves lining on the second floor of Laboratory A and soffit linings on the second floor of the administration building can also be seen.





Photograph 5:

Asbestos millboard debris located in the supply air ductwork in the bulkhead on the western side of room 147 on level 1 of Laboratory B. The extent of the contamination is unknown and could extend further along the ducting.



Photograph 6:

Asbestos rope seal to "Labmaster " oven in south western corner of Room 147 on level 1 of Laboratory B.



Photograph 7:

Redundant asbestos cement pipe running along the southern wall in the ceiling space of the Reception area of the Administration Building.



Photograph 8:

Residual asbestos millboard around heaterbank in A/C ducting (closest to the double doors) on the southern side of the plant room of the administration building.



Photograph 9:

Asbestos cement casting of the downpipe collar adjacent to the holding yard on the western wall of the Meat Research Laboratory



Photograph 10:

Asbestos cement eaves lining along the western wall of the Meat Research Laboratory.





Photograph 11:

Asbestos cement infill panel above the roller door on the northern side of the northern side of the Meat Research Laboratory



Photograph 12:

Asbestos cement flue pipe on the northern side of the Meat Research Laboratory



Photograph 13:

Asbestos cement roof and associated capping of building E-Solvent Store.



Photograph 14:

Fire door between the mezzanine level of the plant room and the roof top of industrial freezers, in the Meat Research Laboratory.



Photograph 15:

Severe damage to the western wall of the store area above the office/laboratory in the Meat Research Laboratory



Photograph 16:

Asbestos rope insulation inside redundant piece of flexible ducting in the store area above the office/laboratory in the Meat Research Laboratory.



Photograph 17:

Stored gasket roll in the south west corner of the workshop store.



Photograph 18:

Asbestos gasket stored on top shelf along the eastern wall of the workshop store.



Photograph 19:

An electrical maintenance board to the brine cooler switchboard in the brine cooler switchboard in the plant room of the Meat Research Laboratory. It is thought that it may contain asbestos.



Photograph 20:

Asbestos rope lagging around flue pipe in male toilet on level 2 of Laboratory.

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Appendix C

Asbestos Background Information and Health Risks

Asbestos: Background Information and Health Risks

1. Background

Asbestos is the generic term for a group of naturally occurring mineral fibres with high tensile strength, flexibility, and resistance to thermal, chemical and electrical conditions. The most significant types include chrysotile, crocidolite and amosite (white, blue and brown or grey asbestos respectively).

Asbestos fibres enter the body by the inhalation and/or ingestion of airborne particles that can become embedded in tissues of the respiratory or digestive systems. International agencies and national authorities now recognise asbestos to be a human carcinogen. This designation was based on an observation of an increased incidence of lung cancer, mesotheliomas and gastrointestinal cancer in occupationally exposed workers, being consistent across investigators and study populations. Information from animal studies on the inhalation of fibres support these findings, although evidence for carcinogenicity via ingestion is limited.

In recognition of the above-mentioned issues, every effort should be made to eliminate the use of asbestos materials in buildings.

2. Use of Asbestos Products

Asbestos was used extensively in structures such as buildings, processing plants, ships, trains and motor vehicles in the 1950s, 1960s and 1970s. In the construction industry, asbestos is found in installed products such as shingles, floor tiles, cement pipe and sheet, roofing felts, pipe and boiler insulation, lagging around hot water and steam pipes, ceiling tiles, fire resistant dry wall, and acoustical products. The use of sprayed asbestos is currently banned in all states, and crocidolite and amosite have been declared customs prohibited imports. Other uses of asbestos include; heat resistant textiles, insulation inside fire doors, insulation around heaterbanks in air-conditioning duct work, laboratory equipment such as autoclaves, ovens and incubators, special filters for industrial chemicals, friction materials in clutch and brake pads, lift brake shoes, electrical cable sheaths, old electrical switchboards, gaskets, paints, and protective paper. Small quantities of asbestos may also be found mixed with a wide variety of substances, the presence of which is not always obvious. Some of these compounds include; magnesite, calcium silicate, diatomaceous earths, tale, clay, chalk, sand, cement, paper, pitch, rubber and a wide range of resins.

3. Risk Factors

Today, very few asbestos containing products are currently being installed. Consequently, most worker exposures now occur during the removal of asbestos and the renovation and maintenance of buildings and structures containing asbestos. Particularly, in the course of dust forming operations such as handling, sawing, sanding, grinding, drilling, turning or similar operations upon materials containing asbestos.

Significant health risks may arise from the inhalation of airborne asbestos fibres, and their passage into the lungs. Fibres that measure less than 3 microns wide and greater than 5 microns long are referred to as respirable fibres and may enter the deepest part of the lung. Larger fibres are deposited in the nose and major airways and are cleared by normal physiological processes.

The inhalation of high concentrations of asbestos has been associated with the condition asbestosis, a progressive scarring of lung tissue. The two main forms of asbestos-related cancer (lung cancer and mesothelioma) are generally associated with exposure to potentially carcinogenic fibres below 3 micrometers in diameter and greater than 5 micrometers in length.

The risk of cancer increases as fibres diameter decreases and with increased exposure to asbestos. Cigarette smoking greatly increases the risk of lung cancer in people heavily exposed to asbestos, but has no known association with mesothelioma. Crocidolite and amosite have the most potent documented effects in producing the highly malignant mesothelioma tumour.

The primary objective in any asbestos management plan is to eliminate, where possible, exposure to airborne asbestos fibres, or as a minimum, ensure workers are not exposed to fibre concentrations greater than the National Occupational Health and Safety Commission's occupational exposure standards for asbestos. It should be noted, that in situations where asbestos has been incorporated into a stable matrix and airborne dust is not generated, the asbestos-related health risk is negligible.

4. Asbestos Cement Products

Asbestos cement products were commonplace building materials prior to 1986.

The material consists of asbestos fibres bound in a cement matrix and the degree of fibre release depends on the condition of the material.

The main health risk with asbestos cement products is from maintenance or similar activity where the material is worked upon (mechanical energy applied) resulting in airborne dust.

It is necessary to have in place safe systems of work when working upon asbestos cement products.

5. Vinyl Floor Coverings

With vinyl floor coverings, asbestos may be present in any of the following:

- the vinyl body of the tile or sheet;
- a fibrous backing under the tile or sheet; and
- a fibrous adhesive used to fix the tile.

Asbestos contained in the vinyl body of the tile or sheet is held in a stable matrix. The very low rate of deterioration does not normally create airborne fibre levels considered to pose a significant health risk. A health risk may arise when asbestos fibres are released due to maintenance work possibly involving the use of metal brush mechanical floor scrubbers (although this is not proven), or when the flooring is friable due to age.

Asbestos backing is sometimes used to line the back of vinyl sheeting. This product poses a negligible risk providing it is not disturbed or worked upon, ie abraded, scuffed or handled. Any of these actions may release measurable levels of asbestos fibres into the airborne environment.

6. Air conditioning Heaterbank Millboard Insulation

Air conditioning duct heaterbanks may be internally lined with asbestos millboard.

The risk from exposure to airborne asbestos fibres through the air conditioning system is dependent upon its condition and friability.

7. Asbestos Containing Electrical Backing Boards

These products (ie 'Zelemite' or 'Asbestos') pose a negligible health risk providing they are not disturbed or worked upon, ie cut, sawn, drilled or sanded. Any of these actions may release measurable levels of asbestos fibres into the airborne environment.

8. Asbestos Impregnated Resinous Membranes

The asbestos fibre in weatherproofing membranes is generally well bound into the resinous matrix of the material and unable to release itself into the airborne environment.

This product does not pose a significant risk to health providing it is not disturbed or worked upon, ie drilled, sanded or burnt. Any of these actions may release measurable levels of asbestos fibres into the airborne environment.