

# **Hazardous Materials Survey**

**GOVERNMENT PROPERTY NSW** 

Peat Island & Adjoiing Land Mooney Mooney NSW

March 2013 JBS 42351 – 53106 (Rev 0)

# Hazardous Materials Survey Report

Government Property NSW

Peat Island, Mooney Mooney, NSW

January 2013 JBS 42531-53106 (Rev 0) JBS Environmental Pty Ltd



# **Table of Contents**

1	Int	roduction1
	1.1	Background1
	1.2	Objectives1
	1.3	Regulatory Guidelines1
2	Me	thodology3
	2.1	Suspected Asbestos Containing Materials
	2.2	Suspected Asbestos Containing Dust3
	2.3	Suspected Lead Based Paint
	2.4	Lead in Dust
	2.5	Synthetic Mineral Fibres
	2.6	Polychlorinated Biphenyls (PCBs)4
3	Sit	e Description5
	3.1	Site Identification5
	3.2	Site Description5
	3.3	Surrounding Land Use7
4	Bui	Ilding descriptions8
	4.1	Building 1 - 'Bindaree Client Accommodation'8
	4.2	Building 2 – 'Rizkalla'8
	4.3	Building 3 - 'High Cleaners Hut'
	4.4	Building 4 – 'Administration'9
	4.5	Building 5 – 'ERC/Staff Amenities'9
	4.6	Building 6 – 'Palms Annex'9
	4.7	Building 7 – 'Pump 1/Garbage Bay/LPG Tanks'10
	4.8	Building 8 – 'Riverside Room'
	4.9	Building 9 – 'Main Kitchen'
	4.10	Building 10 – 'General Store'
	4.11	Building 11 – 'Denby'
	4.12	Building 12 – 'Seabreeze'
	4.13	Building 13 – 'Cottage 2'11
	4.14	Building 14 – 'Cottage 1'12
	4.15	Building 15 – 'Painter/Carpenter'
	4.16	Building 16 – 'Plumber'



	4.17	Building 17 – 'Grounds Store'
	4.18	Building 18 – 'Pool and Amenities'12
	4.19	Building 19 – 'Rotunda'13
	4.20	Building 20 – 'Hawkesbury River Rescue'
	4.21	Building 21 – 'Burrumbilla'13
	4.22	Building 22 – 'Main Fire Indicator'
	4.23	Building 23 – 'Sanbrook/Electrician'13
	4.24	Building 24 – 'Sewing Room'14
	4.25	Building 25 – 'Theatre/Sensory Room'14
	4.26	Building 26 – 'Rec Hall/Leisure/Pillars'14
	4.27	Building 27 – 'Coffee Shop/Laundry'14
	4.28	Sheds15
	4.29	Kowan Road Cottages15
	4.30	Community Library/Former School
	4.31	Former Classroom
	4.32	Toilet/Kitchen Building16
	4.33	Toilet Blocks to south of Toilet/Kitchen Building16
	4.34	Store Room between Toilets
	4.35	Service Station17
	4.36	Chapel
	4.37	Nurses Dormitory
5	Re	sults19
	5.1	Asbestos Containing Materials
	5.2	Lead Based Paints
	5.3	Synthetic Mineral Fibres
	5.4	Polychlorinated Biphenyls19
6	Со	nclusions and Recommendations20
	6.1	Suspected Asbestos Containing Materials
	6.2	Synthetic Mineral Fibres
	6.3	Lead Paint
	6.4	Unexpected Finds



### Figures

Figure 1	Site Location
Figure 2	Site Layout
Figure 3a	Peat Island Building Locations (Area 1 – Portion 3)
Figure 3b	Main Land Building Locations (Area 1 – Portion 1)
Figure 3c	Main Land Building Locations (Area 1 – Portion 2)
Figure 3d	Main Land Building Locations (Area 1 – Part Portion 2 & Portion 6)
Figure 3e	Main Land Building Locations (Area 1 – Portion 8)
Figure 3f	Main Land Building Locations (Area 2 – Portion 9)

### Appendices

Appendix A –Photograph Register
Appendix B – Hazardous Materials Register
Appendix C – Laboratory Results and Chain of Custody Documentation



## 1 Introduction

#### 1.1 Background

JBS Environmental Pty Ltd (JBS) was engaged by Government Property NSW (GPNSW) to conduct a Hazardous Materials Survey (HMS) on the former Peat Island facility and associated areas located at Mooney Mooney, NSW (herein referred to as the Site). In accordance with the information provided in the request for proposal two areas required HMS to be completed on the structures located in each area. The two areas were identified as:

- Peat Island, Mooney Mooney, NSW and adjoining land (herein referred to as Area 1); and
- Department of Education and Communities (DEC) former school site, Point Road, Mooney Mooney, NSW (herein referred to as Area 2).

Selected cottages located on Lot 21 in DP 836628 in the eastern portion of Peat Island are currently leased to tenants by GPNSW and as such were surveyed. The Site location is shown on **Figure 1**. The current Site layout is shown on **Figure 2**. It is understood that the HMS is required to allow GPNSW to fulfil its obligations of disclosure in the event that the site is sold in the future.

The HMS was completed on the 14<sup>th</sup> to 17<sup>th</sup> January 2013 by qualified JBS representatives. The buildings were inspected for (but not limited to):

- Asbestos containing materials;
- Asbestos in dust;
- Lead based paint;
- Lead in dust; and
- Polychlorinated biphenyls (PCBs).

The presence of synthetic mineral fibre (SMF) was also recorded.

#### 1.2 Objectives

The objectives of the HMS was to identify the presence of any hazardous materials for the information of GRPNSW that may require removal or management prior to or during any future refurbishments or demolition of the buildings at the site or that may need to be disclosed in the event that the site is sold.

#### 1.3 Regulatory Guidelines

The survey works and production of this report have been undertaken in accordance with the requirements of:

- Work Health and Safety Act (2011);
- Work Health and Safety Regulation (2011);
- WorkCover How to Safely Remove Asbestos Code of Practice (2011);
- National Code of Practice for the Management and Control of Asbestos in



Workplaces [NOHSC: 2018 (2005)];

- National Code of Practice for the Safe Removal of Asbestos 2<sup>nd</sup> Edition [NOHSC: 2002 (2005)];
- AS4361.2 (1995) Guide to Lead Paint Management. Part 2: Residential and Commercial Buildings;
- National Standard for Synthetic Mineral Fibres [NOHSC: 1004(1990)] and National Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006(1990)]; and
- ANZECC (1997) Identification of PCB-containing Capacitors: An information booklet for Electricians and Electrical Contractors.

This document provides a record of the hazardous materials identified in buildings and other structures located on Peat Island and associated areas (**Figure 2**) in Mooney Mooney, NSW.

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



### 2 Methodology

#### 2.1 Suspected Asbestos Containing Materials

The identification of suspected asbestos containing materials (ACM) involved inspection of all accessible areas. At the request of the client and based on the heritage nature of the structure, samples of suspected ACM were not collected for analysis at a laboratory.

The following observations were recorded about the suspected ACM including:

- Location;
- Condition;
- Accessibility;
- Friability; and
- Dimensions.

#### 2.2 Suspected Asbestos Containing Dust

There were no collections of dust observed during the survey.

#### 2.3 Suspected Lead Based Paint

Australian Standard AS4361.2 1998 Guide to Lead Paint Management Part 2: Residential & Commercial buildings, defines lead paint as those in which the lead content (calculated as lead metal) is in excess of 1.0 per cent by weight of the dry film as determined by laboratory testing or the use of portable X-ray fluorescence (XRF) field tests.

On site analysis was completed with the use of X-ray fluorescence (XRF) spectrometer to determine lead concentrations in painted surfaces and suspected of containing lead. Prior to sample analysis the XRF spectrometer was calibrated to the internal calibration standard.

#### 2.4 Lead in Dust

There were no collections of dust observed during the survey.

#### 2.5 Synthetic Mineral Fibres

Synthetic Mineral Fibres were identified by visual assessment during the survey.

At the time of the survey, the following observations were recorded about the suspect materials including:

- Location;
- Condition;
- Accessibility;
- Friability; and
- Dimensions.



#### 2.6 Polychlorinated Biphenyls (PCBs)

There were no electrical appliances or light fittings observed within the building that were suspected to contain PCBs.



# 3 Site Description

#### 3.1 Site Identification

The site comprises two areas (Areas 1 and 2) as described in **Section 1.1**. The site is currently owned by Government Property NSW and is proposed to be divested.

The site details are summarised in **Table 2.1** and the site layout shown in **Figures 2** and **3** and described in detail in the following sections.

able 2.1 Summary Site Details		
Lot/DP	Lot 2 DP239249,Lot 2 DP2431999, Lot 2 DP 431999, Lot 10 DP 1157280, Lot 4 DP239249, Lot 6 DP597504, Lot 1 DP 107391, Lot 3 DP239249, Lot 21 DP 836628, Lot 2 DP 945014, Lot 1 DP 945014	
Address	Peat Island, Mooney Mooney, NSW and Point Road, Mooney Mooney, NSW	
Local Government Authority	Gosford City Council	
MGA Coordinates (MGA 56)	E: 151.11.876	
of approximate centre of the lot	N: 33.313.730	
Site Zoning	Zone No.5 (a) Special Use – Hospital and School	
Current Use	Vacant.	
Previous Use	Department of Education school, Mental Hospital	
Site Area	Area 1 - approximately 25 ha, Area 2 - approximately 1.3 ha	

Table 2.1 Summary Site Details

#### 3.2 Site Description

An inspection of the site was undertaken by JBS on 14 January 2013. At the time of the site inspection the majority of the buildings throughout both Areas 1 and 2 were vacant, with only the cottages and the church being occupied. The site details are provided in **Figure 3**.

The site inspection comprised a walkover of all ten portions, as shown in **Figure 2**. The description of each of these portions is summarised in **Table 2.2**.

Areas 1 and 2	Lot/DP	Description
Area 1 Portion 1 – Adjoining Land to Peat Island	Lot 2 DP239249	Five buildings are located up a single lane bitumen road, which was in poor condition at the northern end. All the buildings were vacant and in moderate condition, with an outside swimming pool located within the central portion. A generator and LPG gas tank were observed adjacent to five buildings to the north.
		One of the buildings was observed to be a former laundry.
		A disused pool and pool cleaning room was observed in the central portion of the area, between buildings.
Area 1 Portion 2 - Adjoining Land to Peat Island	Lot 2 DP2431999 & Lot 2 DP 431999	A single lane road runs to the east which joins with the Pacific Highway. An administration building is adjacent to the entrance to the bridge leading to Peat Island. The land along the western boundary

Table 2.2 Site Inspection Summary



		consists of flat, reclaimed land, with bitumen, concrete, bricks and plastic observed being used as reclamation materials.
Area 1 Portion 3 – Peat Island	Lot 10 DP 1157280	Access to Peat Island is located via a single lane bridge from the mainland to the eastern boundary of the island. A single lane, concrete road runs from the bridge to the north to a car park. A total of 20 buildings were present on Peat
		Island. With the exception of one of the buildings on the southern boundary used by the local coastguards, all the buildings were vacant. An outside swimming pool was located adjacent to the coastguards building
		The buildings were all in moderate condition.
Area 1 Portion 4 - Adjoining Land to Peat Island	Lot 11 DP1157280	Vacant, vegetated area which consisted of flat, reclaimed land, with bitumen, concrete, bricks and plastic observed being used as reclamation materials.
Area 1 Portion 5 – Wharf area	Lot 4 DP239249	A wharf utilised by local ferries constructed from wood and steel.
Area 1 Portion 6 – Hillside	Lot 6 DP597504 & Lot 1 DP	Bushland, with a water tower located at the summit of the hill. The water tower was in good condition but was not part of the HMS.
	107391	Adjacent to the Pacific Highway was a brick church. The church was in good condition. Adjacent to the church to the north west was a vacant accommodation building, which was in poor condition. A disused tennis court was present to the south of the accommodation.
Area 1 Portion 7 – Service Station	Lot 3 DP239249	A vacant former service station. Access to the site was restricted, with a wire fence, in good condition extending around the whole site.
		The service station building consisted of a metal awning and a single, rectangular, wooden building that was in a moderate condition.
Area 1 Portion 8 – Cottages along water	Lot 21 DP 836628	Access to the cottages was restricted due to the cottages being occupied.
Area 2 Portion 9 DEC and Fire station	Lot 1 DP 431780	A single storey, brick fire station was located along Point Road, with two concrete underground water tanks located at the back of the property.
		Four wooden and brick school cabins were located further to the south. A concrete toilet block was located at the southern boundary of the school, with a single, concrete septic tank located to the south east of the toilet block.
Area 2 Portion 10 - Cottages	Lot 2 DP 945014 & Lot 1 DP 945014	Access to the cottages was restricted due to the cottages being occupied.



#### 3.3 Surrounding Land Use

The current land use of adjacent properties or properties across adjacent roads is shown in **Figures 2** and **3**. The summary below refers to Areas 1 and 2.

<u>Area 1</u>

- North In the north east the site is bound by forest and bushland, with Mooney Mooney town directly north;
- East The eastern boundary is bound by bushland and Mooney Mooney Creek is beyond;
- South The site is bound to the south by bushland and the Hawkesbury River;
- West The western boundary is bound by the Hawkesbury River.

Peat Island itself is bound on all sides by the Hawkesbury River, with a road bridge attached to the mainland.

The Pacific Highway and F3 Motorway transect through the central portion of Area 1, through Portion 2, as shown on **Figure 2**.

#### <u>Area 2</u>

- North Mooney Mooney town, with dwellings.
- East Mooney Mooney town, with dwellings, with bushland and Mooney Mooney Creek beyond.
- West Pacific Highway, with bushland beyond.
- South Hawkesbury River with bushland beyond.



# 4 Building descriptions

The exterior and, when access allowed, the interior of each of the buildings shown on **Figure 3a** to **Figure 3f** were inspected for hazardous materials. The previous uses of the buildings are taken from the information provided by GPNSW.

#### 4.1 Building 1 - 'Bindaree Client Accommodation'

Building 1 comprised a single storey weatherboard building with a corrugated iron roof previously used as client accommodation ('Bindaree'). Suspected asbestos containing material (ACM) was present as cladding on the lower half of the southern exterior wall. The suspected ACM on the exterior of the building was in good condition and covered an area of approximately 25 square metres (m<sup>2</sup>). Cladding on other parts of the buildings and lining of the entrance porch were timber.

With the exception of the two shower rooms in Building 1 hazardous materials were not observed in any of the rooms. Ceiling linings in the shower rooms were constructed of suspected ACM and sample M1 (Chrysotile, Amosite and Crocidolite asbestos detected) was collected. The ceiling linings in the shower rooms were in good condition and covered an area of approximately 11.5 m<sup>2</sup>.

A blue linoleum floor covering was present throughout Building 1 and was common to several of the buildings in Area 1. A sample of the blue linoleum (M2, no asbestos detected) was collected for analysis for asbestos.

The ceiling space could not be accessed during the inspection due to height restrictions. The backing board of the electrical distribution board for the buildings was not ACM. No hazardous materials were observed in a concrete shed located to the south west of Building 1.

#### 4.2 Building 2 – 'Rizkalla'

Building 2 was a single storey building of sandstone and brick construction with a corrugated iron roof. The facia on the east and west exterior of the sandstone portion (NE) of the building was of suspected ACM covering an area of approximately 25 m<sup>2</sup> and in very good condition. The eaves of the building were of suspected ACM in good condition and a sample (M6 - Chrysotile, Amosite and Crocidolite asbestos detected) was collected for analysis.

No Hazardous materials were observed in the interior of Building 2.

A covered walk way connected Buildings 2, 4 and 5. The ceiling lining of the walkway was suspected ACM that was in good condition and had an area of approximately 97  $m^2$ . A sample (M7 - Chrysotile asbestos detected) was collected for analysis.

#### 4.3 Building 3 - 'High Cleaners Hut'

Building 3 was clad with weatherboard with a suspected ACM facia board on the building and the garage. The suspected ACM was in good condition and had an approximate area of 4  $m^2$ . Sample M4 (Chrysotile asbestos detected) was collected for analysis.



With the exception of the floor covering, no hazardous materials were observed in the interior of the shed. The floor covering comprised blue linoleum suspected of containing asbestos and a sample (M5, SMF detected, no asbestos) was collected. The floor lining was in good condition and covered an area of approximately 20 m<sup>2</sup>.

#### 4.4 Building 4 – 'Administration'

Building 4 was constructed of brick with a steel sheet roof and had two storeys. The eaves and the ceiling lining to the entrance porch were of suspected ACM in good condition with an area of approximately 100 m<sup>2</sup>. Sample M8 (Chrysotile asbestos detected) was collected for analysis.

No hazardous materials were observed inside Building 4.

A brick shed adjoined Building 4 with suspected ACM tiles to the floor (approximately 20 m<sup>2</sup>) and suspected ACM sheet ceiling (approximately 20 m<sup>2</sup>) consistent with the material in the ceiling of the porch of Building 4. A sample of the floor tiles (M9 – No asbestos detected) was collected for analysis.

#### 4.5 Building 5 – 'ERC/Staff Amenities'

Was a double storey brick building with a similar appearance to Building 4 and suspected ACM eaves and ceiling lining to the porch consistent with those on Building 4 and represented by sample M7.

The ceiling lining in the bathroom at the southern end of the ground floor of Building 5 was of suspected ACM. The ceiling was in good condition and covered an area of approximately 8 m<sup>2</sup>. The dining room, also in the southern portion of the ground floor had vinyl tiles to the floor suspected of containing asbestos. The tiles were in good condition and covered approximately 80 m<sup>2</sup>. Sample M10 (Chrysotile asbestos detected in tile, none in adhesive) was collected from the tiles for analysis. The ceiling lining of the kitchen and storage rooms located at the northern end of Building 5 was of suspected ACM in good condition and had a total area of approximately 80 m<sup>2</sup>. The ceiling lining of the stairway leading to the first floor was of suspected ACM, which was in good condition and covered an area of approximately 20 m<sup>2</sup>.

Vinyl floor tiles consistent with those observed in the kitchen on the ground floor were present in the twelve offices on the first floor. Each office had a floor area of 10 m<sup>2</sup> resulting in approximately 120 m<sup>2</sup> of tiles suspected of containing asbestos in good condition.

#### 4.6 Building 6 – 'Palms Annex'

Building 6 was a single storey building constructed of brick with concrete tiles to the roof and timber lined eaves. The lining of the ceiling of the porch on the north eastern corner of the building was of suspected ACM, which was in good condition and had an area of approximately 6 m<sup>2</sup>. With the exception of the laundry, no hazardous materials were observed inside the building. Yellow vinyl floor tiles under the sink in the laundry in the south western corner of the building were suspected on containing asbestos and had an area of approximately 2 m<sup>2</sup>. A sample of the yellow tiles (M15 - *Chrysotile asbestos detected*) was collected for analysis.



#### 4.7 Building 7 – 'Pump 1/Garbage Bay/LPG Tanks'

No hazardous materials were observed in Building 7.

#### 4.8 Building 8 – 'Riverside Room'

Building 8 was constructed of brick and weatherboard and was single storeyed. The eaves were suspected ACM, were in good condition and had an area of approximately 20 m<sup>2</sup>. The green linoleum flooring to the interior of the building was suspected to contain asbestos, was in good condition and had an area of approximately 120 m<sup>2</sup>.

#### 4.9 Building 9 – 'Main Kitchen'

Building 9 was a single storey building constructed of brick with a steel sheet roof. The eaves were of suspected ACM and covered an area of approximately 40  $m^2$ . The eaves were in good condition.

The ceiling lining of the utility room at the northern end of the building was of suspected ACM. The ceiling had an area of approximately 45 m<sup>2</sup> and was in good condition. Sample M11 (Chrysotile asbestos detected) was collected from the ceiling lining material. Vinyl floor tiles in the northern most utility room were suspected of containing asbestos. The tiles covered an area of approximately 8 m<sup>2</sup> and were in good condition. Sample M12 (Chrysotile asbestos detected in tile, none in adhesive) was collected from the tiles.

The kitchen in the southern portion of the building was predominantly tiled with ceramic tiles and no hazardous materials were observed.

Blue linoleum floor covering, consistent with that in Building 1 and suspected of containing asbestos, was present in the rooms in the south western portion of the building. Approximately 50 m<sup>2</sup> of the blue linoleum, in good condition, were present in Building 9.

#### 4.10 Building 10 – 'General Store'

Building 10 was a single storey building constructed of brick with a sheet steel roof. The eaves were of suspected ACM with and area of approximately 20 m<sup>2</sup> and in good condition.

The entire floor (approximately 100 m<sup>2</sup>) of the interior of the building was covered with a yellow vinyl suspected of containing asbestos. The vinyl was in good condition and a sample (M13 – *No asbestos detected*) was collected for analysis. Similarly the ceiling lining (approximately 100 m<sup>2</sup>) was of suspected ACM. The electrical distribution backing board located in the north-eastern room was of asbestos containing 'Zelemite'. The wall linings in the north-eastern and north-western were of suspected ACM and covered an area of approximately 40 m<sup>2</sup>. Sample M14 (*Chrysotile, Amosite and Crocidolite asbestos detected*) was collected from the wall lining material for analysis.

#### 4.11 Building 11 – 'Denby'

Building 11 was a double storey building constructed of brick with a steel sheet roof. The eaves on the upper eastern and western faces of the building covered an area of approximately 30 m<sup>2</sup> and were of suspected ACM. An add-on building on the eastern face of Building 11 was constructed of suspected ACM, as were infill panels on that part of the



building. The suspected ACM in the add-on building and the infill panels covered a total area of approximately 50 m<sup>2</sup> and sample M16 (*No asbestos detected*) was collected from this material.

The ceiling lining on the lower western and southern face of the building was of suspected ACM and had a total area of approximately 50 m<sup>2</sup>. Sample M17 (*Chrysotile, Amosite and Crocidolite asbestos detected*) was collected from the ceiling lining material in this area.

Blue vinyl floor tiles, suspected of containing asbestos, were on the floor of the laundry located in the south eastern corner of the ground floor of Building 11. The tiles covered an area of approximately 30 m<sup>2</sup> and had been fixed with a black bituminous adhesive. Samples M18 was collected from the vinyl tiles.

Approximately 15 m<sup>2</sup> of suspected ACM ceiling lining was observed in the stairway leading to the first floor. Blue vinyl floor tiles, suspected of containing asbestos, had been exposed when a cupboard had been removed from one of the office. The exposed tiles had an area of approximately 1 m<sup>2</sup> and it is suspected that similar patches of tiles are present under cupboards in the other eleven offices on the first floor of Building 11. Consequently, it is assumed that approximately 12 m<sup>2</sup> of blue vinyl tiles, suspected of containing asbestos are present on the first floor of the building. Sample M19 (*Chrysotile, asbestos detected in the tile, none in the adhesive*) was collected from the exposed area of tiles.

#### 4.12 Building 12 – 'Seabreeze'

Building 12 was a double storey building constructed of brick with a cast concrete and sheet steel roof. The eaves beneath the sheet steel roof were of suspected ACM with a total area of approximately  $15 \text{ m}^2$ .

The ceiling linings in rooms along the eastern portion of the ground floor of the building were suspected ACM and sample M27 (*Chrysotile and Amosite asbestos detected*) was collected. These ceiling linings had a total area of approximately 117 m<sup>2</sup> and were in good condition. The ceiling linings in the bathroom in the southern portion of the building had an area of approximately 6 m<sup>2</sup> and were consistent with those in the eastern portion, as represented by sample M27. Approximately 10 m<sup>2</sup> of suspected ACM sheets in good condition were present as the ceiling lining in the stairway leading to the first floor.

Grey vinyl tiles, suspected of containing asbestos, covered the entire floor area (approximately 465 m<sup>2</sup>) of the first floor. The tiles were in good condition and sample M28 (*Chrysotile asbestos detected in the tile, none in the adhesive*) was collected for analysis.

#### 4.13 Building 13 – 'Cottage 2'

Building 13 was a single storey buildings constructed of brick with a steel sheet roof.

Blue vinyl floor tiles in the SE room (approximately 12.5 m<sup>2</sup>, sample M21 - *Chrysotile*, *asbestos detected in tile*, *none in adhesive*), the linoleum floor covering in the NE corner room (approximately 10 m<sup>2</sup>, sample M20 – *No asbestos detected*), the green vinyl floor covering in the southern rooms (approximately 40 m<sup>2</sup>, sample M23 – *No asbestos detected*) and the green vinyl floor tiles in the SW corner room (approximately 10 m<sup>2</sup> and



consistent with those in the southern rooms) were suspected to contain asbestos but in good condition.

Wall linings in the laundry (approximately 15 m<sup>2</sup>, sample M22) and in the SW corner room and wall and ceiling linings in the kitchen (approximately 30 m<sup>2</sup>, sample M24 - *Chrysotile, asbestos detected*) were of suspected ACM. All linings were in good condition.

#### 4.14 Building 14 – 'Cottage 1'

Building 14 was a single storey building constructed of weatherboard and brick with a steel sheet roof. Ceiling linings throughout the building were of suspected ACM and covered an area of approximately 200 m<sup>2</sup>. The linings were in good condition. Sample M26 (*Chrysotile and Amosite asbestos detected*) was collected from the ceiling linings.

#### 4.15 Building 15 – 'Painter/Carpenter'

Building 15 was a single storey building constructed of weatherboard with a steel sheet roof and a basement area. The eaves of the building and the ceiling lining of the entry porch on the north of the building were of suspected ACM in good condition with an area of approximately 80 m<sup>2</sup>. Sample 31 was collected from this material.

The interior of Building 15 was divided into two main rooms with a bathroom located in the northern corner of the building. The ceiling lining was observed to be consistent with the ceiling lining on the entry porch and suspected ACM in good condition with an area of approximately 10 m<sup>2</sup>. Wall linings in the bathroom were also of suspected ACM in good condition with an area of approximately 25 m<sup>2</sup>. Sample M32 (*Chrysotile and Amosite asbestos detected*) was collected from the material in the wall linings.

The vinyl floor tiles in the two main rooms were suspected of containing asbestos and sample M33 (*No asbestos detected*) was collected. The vinyl tiles covered an area of approximately 90 m<sup>2</sup>. The linings of the outside walls and the ceilings of both of the main rooms were suspected ACM in good condition and with a combined area of approximately  $260 \text{ m}^2$ .

#### 4.16 Building 16 – 'Plumber'

Building 16 was a single storey building constructed of brick with a steel sheet roof. The eaves of the building were of suspected ACM in good condition with an area of approximately 24 m<sup>2</sup>. No hazardous materials were observed inside the building.

#### 4.17 Building 17 – 'Grounds Store'

Building 17 was constructed of sheet steel wall and roof. The interior of the building was divided into an eastern and western portion, in which no hazardous materials were observed. A garage at the eastern end of the building could not be accessed during the survey.

#### 4.18 Building 18 – 'Pool and Amenities'

Building 18 was a single storey building constructed of brick with a pour concrete roof fitted with solar pool heating elements. Access was not available to the room on eastern side of the building. The ceiling linings and eaves of the accessible parts of the building



were of suspected ACM in good condition and an area of approximately 56 m<sup>2</sup>. Samples M30 (*Chrysotile asbestos detected*) was collected from the lining material.

#### 4.19 Building 19 – 'Rotunda'

Building 19 was a rotunda constructed of steel and timber. No hazardous materials were observed during the inspection.

#### 4.20 Building 20 – 'Hawkesbury River Rescue'

Building 20 was a single storey building constructed of brick and weatherboard with a corrugated iron roof. Suspected ACM sheets were observed stored under the building (approximately 1 m<sup>2</sup>). Infill panels located on the northern face of the building were of suspected ACM, were in good condition and had an area of approximately 5 m<sup>2</sup>.

Blue vinyl floor tiles in the northern portion of the building were suspected to contain asbestos. The tiles were in good condition and covered an area of approximately 36 m<sup>2</sup>. Wall (approximately 60 m<sup>2</sup>) and ceiling (approximately 72 m<sup>2</sup>) linings in the northern portion of the building were of suspected ACM in good condition.

The vinyl floor tiles (approximately 10 m<sup>2</sup>), wall (approximately 12.5 m<sup>2</sup>) and ceiling (approximately 7.5 m<sup>2</sup>) linings in the room immediately south of the northern portion of the building were of suspected ACM in good condition.

Green vinyl floor tiles beneath the southern room were suspected of containing asbestos, were in good condition and covered an area of approximately 60 m<sup>2</sup>. The wall (approximately 60 m<sup>2</sup>) and ceiling (approximately 30 m<sup>2</sup>) linings were of suspected ACM and in good condition.

#### 4.21 Building 21 – 'Burrumbilla'

Building 21 was a single storey building constructed of brick with a cement tile roof. The eaves were of suspected ACM in good condition with an area of approximately 45 m<sup>2</sup>. The interior of the building was configured as accommodation with a large main room, a kitchen and bedrooms. No hazardous materials were observed in the building.

#### 4.22 Building 22 – 'Main Fire Indicator'

Building 22 was a small building constructed of brick with a poured concrete roof and, based on signage, containing fire control panels. Access to the interior of the building was not available but given the modern appearance is not expected to contain hazardous materials.

#### 4.23 Building 23 – 'Sanbrook/Electrician'

Building 23 was constructed of brick with a cement tile roof. The building was constructed on a slope allowing an under storey used for storage and a former electricians workshop. An annex was attached to the western side of the main building. The annex was constructed of colorbond style sheeting with a corrugated iron roof. The upper, main, part of the building was former client accommodation comprising bedrooms, common rooms, a kitchen, bathrooms and amenities and offices.



The wall and ceiling linings in the staff toilet in the southern part of the building were of suspected ACM which was in good condition and had an area of approximately 25 m<sup>2</sup>. The walls and ceilings of the client bathrooms at the northern and central parts of the building were of suspected ACM in good condition, which had a total area of approximately 195 m<sup>2</sup>. Samples 130117-bcf-01 (*Chrysotile asbestos detected*) and 130117-bcf-02 (*No asbestos detected*) were collected from the material in the ceiling and walls in the client bathrooms, respectively. It is noted that the wall linings in the client bathroom were covered with ceramic tiles.

The lining on the underside of the annex was of suspected ACM, which was in good condition and had an area of approximately 185 m<sup>2</sup>. Sample 130117-bcf-03 (*No asbestos detected*) was collected from the material on the underside of the annex. The infill panels beneath windows in the former electrician's workshop in the understorey were of suspected ACM, which was in good condition and had an area of approximately 1.5 m<sup>2</sup>. One wall of the electrical switch room in the understorey was lined with cement sheet suspected to contain asbestos. The wall was in good condition and had an area of approximately 13 m<sup>2</sup>.

#### 4.24 Building 24 – 'Sewing Room'

Building 24 was constructed of weatherboard with a corrugated iron roof. Access to the interior of the building was not available during the inspection. The exterior of the building was painted with a cream coloured paint that was peeling. The paint was suspected to be lead paint and a sample was collected (130117-bcf-07 – 0.3% - not lead-based paint).

#### 4.25 Building 25 – 'Theatre/Sensory Room'

Building 25 was a split level building constructed of brick with a steel sheet roof.

The ceiling linings of the toilet and cleaners rooms on the eastern side of the building were of suspected ACM, were in good condition and had an area of approximately 9  $m^2$ .

No other hazardous materials were observed in Building 25.

#### 4.26 Building 26 – 'Rec Hall/Leisure/Pillars'

Building 26 was a single storey building constructed of brick with a cement tile and steel sheet roof. The veranda along the eastern wall had a corrugated iron roof. The eaves were of suspected ACM, were in good condition and had an area of approximately  $35 \text{ m}^2$ .

The toilet cubicle walls in the female and male toilets were constructed of suspected ACM in good condition and with areas of approximately 10  $m^2$  and 12  $m^2$ , respectively.

#### 4.27 Building 27 – 'Coffee Shop/Laundry'

Building 27 was constructed of brick with a steel sheet roof. The eaves of the building were of suspected ACM which was in good condition and had an area of approximately 44  $m^2$ .

The building was constructed on a slope forming an understorey that housed the laundry. With the exception of a partitioned area in the toilet, and peeling paint in the cleaners room (sample 130117-bcf-04 – 0.4% not lead-based paint) hazardous materials were not



observed in the upper part of the building. A section of the toilet appeared to have been partitioned off to form a toilet accessible for outside the building. The partition was constructed of suspected ACM, was in good condition and had an area of approximately  $11 \text{ m}^2$ .

As noted above, the understorey area of Building 27 was occupied by the former laundry. The linings of the walls of an office and toilet and shower room constructed at the northern end of the laundry were of suspected ACM, which was in good condition and had a total area of approximately 45 m<sup>2</sup>. Sample 130117-bcf-05 (*Chrysotile asbestos detected*) was collected from the material. Infill panels under the windows in the western wall of the laundry were of suspected ACM, which was in good condition and had a total area of approximately 12 m<sup>2</sup>.

Insulated pipes crossed the ceiling. The lagging on the pipes appeared to be synthetic mineral fibre but sample 130117-bcf-06 (*SMF detected, no asbestos detected*) was collected for asbestos determination.

#### 4.28 Sheds

Three small buildings, referred to as Sheds 1 to 4 on **Figure 2c**, were located in the southern part of Area 2.

**Sheds 1 & 2** were constructed of reinforced concrete and corrugated iron. The buildings were boarded up and access to the interiors was not available during the survey. Based on an inspection of the exterior and, where possible through gaps in the windows and doors, the interiors, there were no hazardous materials observed in either building. Paint on the exterior of the buildings was test using the XRF and returned negative results.

The walls of **Shed 3** were constructed of reinforced concrete and had a corrugated iron roof. The eaves of the building were of suspected ACM, were in good condition and had an area of approximately 5  $m^2$ . Paint on the exterior tested negative for lead paint. Access to the interior of the building was not available during the survey but it was assumed that the building was a toilet block based on observations for the outside.

**Shed 4** was constructed of brick with a flat, poured concrete roof. The building housed an above ground fuel tank. No hazardous materials were observed in the building.

#### 4.29 Kowan Road Cottages

Only one of the cottages (65 Kowan Road), assumed to be representative of buildings at 51 to 64 and 66 to 68 Kowan Road, was vacant and available for inspection at the time of the survey.

The cottage was a single storey building constructed of brick with a concrete tile roof. The eaves were of suspected ACM, were in good condition and had an area of approximately 50 m<sup>2</sup>. The backing board of the electrical distribution board for the cottage was of 'Zelemite' and was suspected to contain asbestos. The backing board was in good condition and had an area of approximately 0.5 m<sup>2</sup>.

The interior of the cottage comprised flat sheet ACM wall and ceiling linings in the laundry (sample 130220\_6 – *Chrysotile, Amosite and Crocidolite asbestos detected*). The wall and ceiling linings were in fair condition and had an area of approximately 20 m<sup>2</sup>. There were



ACM flat sheet wall linings in the kitchen (sample  $130220_7 - Chrysotile$ , Amosite and Crocidolite asbestos detected) in good condition and with an area of approximately 15 m<sup>2</sup>. There was also non asbestos containing linoleum floor lining in the kitchen and laundry that was found to contain SMF (sample  $130220_8 - no$  asbestos detected, SMF detected) in fair condition and with an area of approximately 15 m<sup>2</sup>. The bathroom and hallway cupboards comprised ACM flat sheet wall linings (sample  $130220_9 - Chrysotile$  asbestos detected) in poor condition with some exposed edges and broken pieces observed in the bathroom and with a total area of approximately  $30 \text{ m}^2$ . There was also vinyl floor lining in the western bedroom that was found not contain asbestos within the vinyl material itself but did record asbestos fibres on the backing of the vinyl material, presumed to be present in the adhesive (sample  $130220_10A - no$  asbestos detected, sample  $130220_10B - Chrysotile$  asbestos detected) with an area of approximately  $15 \text{ m}^2$ .

Assuming the construction of the cottage inspected (65 Kowan Road) is representative of the other 17 cottages in Kowan Road, it is estimated that in total a minimum of approximately 2218.5 m<sup>2</sup> of suspected ACM and 255 of SMF materials is present in the cottages along Kowan Road.

#### 4.30 Community Library/Former School

The former school was a single storey brick building with a concrete tile roof. The eaves observed on the eastern and western faces of the building were suspected ACM, were in good condition, and had a combined area of approximately 15.0 m<sup>2</sup>. No hazardous materials were observed inside the building, but no access was available to the southernmost internal room.

#### 4.31 Former Classroom

The former classroom was a single storey timber clad building with a corrugated iron roof. The exterior paint was lead based (XRF149 – 1.0%). The ceiling lining of the porch on the northern face of the building was of suspected ACM, was in good condition and had an area of approximately 7.5 m<sup>2</sup>.

Access to the interior was not available during the inspection but could be observed through the windows. The linings of the walls were suspected ACM in good condition with a combined area of approximately 210 m<sup>2</sup>. The linings of the ceiling were also of suspected ACM with an area of approximately 70 m<sup>2</sup>. The ceiling linings were in poor condition with missing sections and multiple broken edges.

#### 4.32 Toilet/Kitchen Building

The toilet/Kitchen building was a single storey timber clad building with a corrugated iron roof. The eaves on the western face were of suspected ACM, in good condition with an area of approximately  $3 m^2$ .

Hazardous materials were not observed in the interior of the building.

#### 4.33 Toilet Blocks to south of Toilet/Kitchen Building

The two toilet blocks were constructed of brick with steel sheet roofs. The eaves of each building were of suspected ACM in good condition with an approximate area of  $2 \text{ m}^2$  on each building. Similarly the ceilings in each building were of suspected ACM in good



condition with an approximate area of 4 m<sup>2</sup> in each building. A store room was located between the two toilet blocks with suspected ACM wall linings with a combined area of approximately 30 m<sup>2</sup> and a steel sheet roof. There were also suspected ACM eaves with an area of approximately 2 m<sup>2</sup>.

#### 4.34 Store Room between Toilets

The Store Room was located between the male and female toilets to the south of the Toilet/Kitchen building.

The wall linings in the Store Room (approximately  $30 \text{ m}^2$ ) and the eaves (approximately  $2 \text{ m}^2$ ) were of suspected ACM and in good condition. The building had a sheet steel roof. No samples were collected during the survey due to public access being available to the toilets.

#### 4.35 Service Station

The service station was constructed of brick and weatherboard with a steel sheet roof and was not operational. The eaves were of suspected ACM in good condition with an area of approximately  $33 \text{ m}^2$ . The lining of the awning covering the bowser area was of suspected ACM in good condition with an area of approximately  $45 \text{ m}^2$ . The wall lining on the southern face of the building was of suspected ACM in good condition with an area of approximately  $10 \text{ m}^2$ .

Paint on the exterior window sills was lead based (XRF85 - 1.5%).

The interior of the service station comprised vinyl floor tiles and linoleum flooring that did not contain asbestos (samples 130220\_1 and 130220\_2 respectively, both did not contain asbestos). There was a non ACM flat sheet wall on the southern face (sample 130220\_3 – no asbestos detected) and all other walls in the service station comprised masonite sheeting. The lower half of the cool room western wall comprised ACM flat sheeting (sample 130220\_4 – *chrysotile asbestos detected*), was n good condition and covered an area of approximately 2 m<sup>2</sup>. The ceiling lining throughout the service station comprised ACM flat sheeting (sample 130220\_5 – *Chrysotile, Amosite and Crocidolite asbestos detected*) that was in good condition and covered an area approximately 150 m<sup>2</sup>. Settled dust was also observed in areas of the service station that was found to contain asbestos (sample 130220\_D1 – *Chrysotile and Crocidolite asbestos detected*). This settled dust should be considered friable and is estimated to cover approximately 10 m<sup>2</sup> of horizontal support beams and upper linings of cupboards and other equipment within the service station.

#### 4.36 Chapel

The Chapel was constructed of brick with a terracotta tile roof with timber lining to the eaves. The ceiling lining in the entry foyer in the northern face was of suspected ACM in good condition with an area of approximately 10.0 m<sup>2</sup>. No hazardous materials were observed inside the building.

The adjacent toilet block was of similar construction to the chapel building and no hazardous materials were observed.



#### 4.37 Nurses Dormitory

The nurse's dormitory was a double storey brick building with a concrete tile roof. Exterior infill panels beneath porch wall windows along the northern face of the building were of suspected ACM. Samples were collected from representative panels in the western (M34 - *Chrysotile and Amosite asbestos detected*) and eastern (M35 - *Chrysotile and Amosite asbestos detected*) and eastern (M35 - *Chrysotile and Amosite asbestos detected*) and eastern (M35 - *Chrysotile and Amosite asbestos detected*) portions. The infill panels were in fair condition with some damaged areas and fragments of suspected ACM observed on the ground surface and had a total area of approximately 25 m<sup>2</sup>. The eaves on the eastern and southern faces of the building were of suspected ACM, were in good condition and had areas of approximately 20 m<sup>2</sup> and 30 m<sup>2</sup>, respectively. The backing board of the electrical distribution board for the cottage was of 'Zelemite' and contained asbestos, was in good condition and had an area of approximately 0.5 m<sup>2</sup>. Sample M36 (*Chrysotile asbestos detected*) was collected from the backing board.

The ceiling linings in the bathrooms and in an annex attached to the western face of the main building were of suspected ACM, which was in good condition, and had areas of approximately  $10 \text{ m}^2$  and  $5 \text{ m}^2$ , respectively.

A small timber clad shed adjacent to the car park in this area did not contain any observable hazardous materials.



### 5 Results

#### 5.1 Asbestos Containing Materials

The Hazardous Materials and Asbestos Register (**Appendix B**) summarises the occurrence of asbestos containing materials and suspected asbestos containing materials throughout the buildings surveyed.

#### 5.2 Lead Based Paints

Most painted surfaces were tested for concentrations of lead using an X-Ray fluorescence spectrometer (XRF). The XRF malfunctioned during the survey of buildings 21 to 27 and the sheds on the mainland on 17<sup>th</sup> December 2012. Consequently, where practical samples of flaking paint were collected for laboratory analysis

In general the XRF responses indicated that the paint on the buildings and structures surveyed was not lead based. Exceptions to the general indication were as follows:

- exterior paint on the Former Classroom (Section 4.32) XRF149 1.0%; and
- exterior paint on the window sills of the Service Station (Section 4.35) XRF85 1.5%.

#### 5.3 Synthetic Mineral Fibres

Synthetic Mineral Fibres (SMF) were not, in general, observed during the survey. Insulation lagging on pipes in the laundry in the understorey of Building 27 – 'Coffee Shop/Laundry' (Section 4.27) was SMF.

It is noted that access to the ceiling spaces was not always available and SMF should be assumed to be present in the form of insulation batts until confirmation is obtained. Similarly, water heaters were observed during the survey and it is assumed that any water heaters present on the site will contain SMF insulation.

#### 5.4 Polychlorinated Biphenyls

There were no light fittings or other electrical equipment identified as containing or potentially containing PCBs during the survey.



### 6 Conclusions and Recommendations

Hazardous materials were identified and suspected to be present across the site based on visual identification and laboratory analysis

The following recommendations are made for works to mitigate the effects of hazardous materials prior to any future works commencing.

#### 6.1 Suspected Asbestos Containing Materials

All of the suspected ACM observed in the buildings was non-friable and, with minor exceptions, in generally good, stable and sealed condition.

Overall, the suspected ACM in the buildings does not pose an immediate risk to the health of occupants of the buildings and provided they remain undisturbed and sealed will not be a risk in the future. Consequently, apart from management of the materials to maintain them in their present condition, no work is recommended on the *in situ* suspected ACM.

Any broken fragments of suspected ACM should be removed and disposed of offsite to a facility legally able to accept asbestos waste. Any unsealed edges on broken panels that are to remain in place should be sealed to prevent generation of asbestos fibres if disturbed. Suitable sealants include acrylic paint and PVA adhesive.

If the suspected ACM is to be removed from the buildings or will be disturbed during refurbishment, a Class A (friable) or Class B (non-friable) asbestos removal contractor must be engaged to complete the works in accordance with the *Work Health and Safety Act (2011), Work Health and Safety Regulation (2011),* the SafeWork Australia publication *How to Safely Remove Asbestos Code of Practice (2011)* and the National Occupational Health and Safety Commission (NOHSC) publication *Code of Practice for the Safe Removal of Asbestos 2<sup>nd</sup> Edition [NOHSC: 2002(2005)].* 

The materials should be disposed of to an appropriately licensed landfill in accordance with the *Waste Classification Guidelines Part 1: Classifying Waste* (DECCW 2009).

The WHS 2011 Regulation 429 states, "*A person with management or control of a workplace must ensure a written asbestos management plan is prepared for the workplace if asbestos or ACM has been identified or assumed present..."*. It is, therefore, recommended that an Asbestos Management Plan is prepared for the buildings in accordance with the Code of Practice (Safe Work 2011<sup>1</sup>) as adopted by WorkCover NSW.

#### 6.2 Synthetic Mineral Fibres

Any Synthetic Mineral Fibres identified during demolition or refurbishment should be handled in accordance with *National Standard for Synthetic Mineral Fibres* [NOHSC: 1004(1990)] and National Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006(1990)].

<sup>&</sup>lt;sup>1</sup> *How to Manage and Control Asbestos in the Workplace – Code of Practice*, prepared by Safe Work Australia, 2011, (Safe Work 2011)



#### 6.3 Lead Paint

Management of the lead paint throughout the buildings should be carried out in accordance with Australian Standard AS4361-1998 *Guide to lead paint management – Residential and commercial buildings.* 

#### 6.4 Unexpected Finds

Should any additional suspected hazardous materials be observed during demolition or refurbishment works within the surveyed area, within areas that were not accessible during the survey or within areas that were not included in this survey, works should cease until a either a licensed asbestos assessor, competent person (as defined by the Code of Practice) or a suitably experienced occupational hygienist can assess the suspected hazardous material.

Figures

















Appendix A Photograph Register


Photograph 01 – Building 1, Asbestos containing flat sheet ceiling lining within interior shower rooms



Photograph 02 – Building 2, Asbestos containing flat sheet eaves and facia cladding



Photograph 03 – Building 3, Asbestos containing flat sheet garage facia board



Photograph 04 – Building 4, Asbestos containing flat sheet porch ceiling lining



Photograph 05 – Shed adjacent to Building 4, Presumed asbestos containing ceiling lining



Photograph 06 – Building 5, Presumed asbestos containing flat sheet porch ceiling lining



Photograph 07 – Building 5, Presumed asbestos contai9ning flat sheet eaves



Photograph 08 – Building 5, Presumed asbestos containing flat sheet ceiling lining in ground floor (southern) bathroom



Photograph 9 – Building 5, Asbestos containing vinyl floor tiles in kitchen



Photograph 10 – Building 5, Presumed asbestos containing vinyl floor tiles beneath carpet in first floor office areas



Photograph 11 – Building 6, Presumed asbestos containing flat sheet porch ceiling lining (NE corner)



Photograph 12 – Building 6, Asbestos containing vinyl floor tiles in laundry



Photograph 13 – Building 9, Asbestos containing flat sheet ceiling lining in utility room.



Photograph 14 – Building 9, Asbestos containing vinyl floor tiles in utility room



Photograph 15 – Building 10, Presumed asbestos containing flat sheet eaves



Photograph 16 – Building 10, Presumed asbestos containing flat sheet interior ceiling lining



Photograph 17 – Building 10, Presumed asbestos containing 'zelemite' backing board



Photograph 18 - Building 10, Asbestos containing flat sheet wall linings



Photograph 19 – Building 11, Presumed asbestos containing flat sheet eaves



Photograph 20 – Building 11, Asbestos containing flat sheet porch ceiling lining



Photograph 21 – Building 11, Asbestos containing vinyl floor tiles beneath office area cupboards on first floor



Photograph 22 – Building 11, Presumed asbestos containing flat sheet stairwell ceiling lining



Photograph 23 – Building 12, Asbestos containing flat sheet ground floor ceiling lining



Photograph 24 – Building 12, Asbestos containing first floor vinyl floor tiles



Photograph 25 – Building 13, Asbestos containing blur vinyl floor tiles



Photograph 26 – Building 14, Asbestos containing flat sheet ceiling lining



Photograph 27 – Building 15, Asbestos containing flat sheet bathroom wall lining



Photograph 28 – Building 18, Asbestos containing flat sheet ceiling lining



Photograph 29 – Building 20, Presumed asbestos containing flat sheet wall lining



Photograph 30 – 65 Kowan Rd, Asbestos containing wall lining in kitchen



Photograph 31 – 65 Kowan Rd, Asbestos containing flat sheet bathroom wall linings



Photograph 32 – Service station, Asbestos containing flat sheet ceiling lining



Photograph 33 – Nurses Dormitory, Asbestos containing flat sheet in fill panels beneath porch windows



Photograph 34 – Nurses Dormitory, Asbestoo containing 'zelemite' backing board (ground floor)

Appendix B Hazardous Materials and Asbestos Register



Ę Ļ	Ltd,	Ltd,	Ltd,	Ltd,	Ltd,	Ltd,	Ltd,	Ltd,	Ltd,	Ltd,	Ltd,	Ltd,	Ltd,
DATE OF LAST INSPECTION (INCL. COMPANY NAME AND INITIALS)	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF
ACTIONS REQUIRED		Maintain undisturbed and in sealed condition		Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition		Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition
APPROX. QUANTI TY (m²)		11		30	30	7	20	95	100	20		100	ω
MATERIAL CONDITION		Non friable - Good		Non friable - Good	Non friable – Good	Non friable – Good	Non friable – Good	Non friable – Good	Non friable – Good	Non friable - Good		Non friable – Good	Non friable – Good
ANALYTICAL RESULT	No asbestos detected	Chrysotile, Amosite and Crocidolite asbestos detected	No asbestos detected	Chrysotile, Amosite and Crocidolite asbestos detected	Presumed to contain asbestos	Chrysotile asbestos detected	No asbestos detected Synthetic mineral fibre detected	Chrysotile asbestos detected	Chrysotile asbestos detected	Presumed to contain asbestos	No asbestos detected	Presumed to contain asbestos	Presumed to contain asbestos
PHOTO REGISTER REF.		01		02	02	80			04	05		06 & 07	08
SAMPLE TYPE	Material	Material	Material	Material	1	Material	Material	Material	Material	-	Material	ı	1
JBS SAMPLE NO.	M3	۳	M2	9W	N/A	M4	M5	LM7	M8	Consistent with sample M8	6W	Consistent with sample M7	N/A
MATERIAL DESCRIPTION	Flat sheeting	Flat sheeting	Vinyl sheeting	Flat sheeting	Cladding	Flat sheeting	Linoleum sheeting	Flat sheeting	Flat sheeting	Flat sheeting	Vinyl floor tiles	Flat sheeting	Flat sheeting
SURFACE	Wall lining	Ceiling lining	Floor lining	Roof eaves	Facia Boards	Building and garage facia boards	Floor lining	Ceiling lining	Eaves and porch ceiling lining	Ceiling lining	Floor lining	Eaves and porch ceiling lining	Ceiling lining
LOCATION	Building 1 – Exterior southern face	Building 1 – Interior shower rooms	Building 1 – Interior rooms	Building 2 – Exterior eastern and western faces	Building 2 – Exterior eastern and western faces	Building 3 – Exterior southern face	Building 3 - Interior room	Covered Walkway between Buildings 2, 4 & 5	Building 4 - Exterior	Shed adjacent to Building 4 – Interior	Shed adjacent to Building 4 – Interior	Building 5 – Exterior	Building 5 - Interior ground floor bathroom (S portion)

Hazardous Materials Register Peat Island, Mooney Mooney NSW © 2013 JBS Environmental Pty Ltd

AST (INCL. AE AND	al Pty Ltd,	al Pty Ltd,	il Pty Ltd,	al Pty Ltd,	i Pty Ltd,	, al Pty Ltd,	al Pty Ltd,	, I Pty Ltd,	, I Pty Ltd,	, al Pty Ltd,	i Pty Ltd,
DATE OF LAST INSPECTION (INCL. COMPANY NAME AND INITIALS)	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF
ACTIONS REQUIRED	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition
APPROX. QUANTI TY (m²)	80	80	20	120	ε	2	20	120	40	45	8
MATERIAL CONDITION	Non friable – Good	Non friable - Good	Non friable - Good	Non friable – Good	Non friable – Good	Non friable – Good	Non friable – Good	Non friable – Good	Non friable – Good	Non friable – Good	Non friable – Good
ANALYTICAL RESULT	A)Chrysotile asbestos detected B)No asbestos detected	Presumed to contain asbestos	Presumed to contain asbestos	Presumed to contain asbestos	Presumed to contain asbestos	A)Chrysotile asbestos detected B)No asbestos detected	Presumed to contain asbestos	Presumed to contain asbestos	Presumed to contain asbestos	Chrysotile asbestos detected	A)Chrysotile asbestos detected B)No asbestos
PHOTO REGISTER REF.	60			10	11	12				13	14
SAMPLE TYPE	Material	r	-	ı	-	Material				Material	Material
JBS SAMPLE NO.	01M	A/N	N/A	Consistent with sample M10	N/A	M15	N/A	A/N	N/A	L L M	M12
MATERIAL DESCRIPTION	A) Vinyl floor tiles B) Adhesive	Flat sheeting	Flat sheeting	Vinyl floor tiles beneath carpet	Flat sheeting	A)Yellow vinyl floor tiles B)Adhesive	Flat sheeting	Green linoleum flooring	Flat sheeting	Flat sheeting	A)Vinyl floor tile B)Adhesive
SURFACE	Floor lining	Ceiling lining	Ceiling lining	Floor lining	Ceiling lining	Floor lining	Roof eaves	Floor linings	Roof eaves	Ceiling lining	Floor lining
LOCATION	Building 5 – Interior ground floor kitchen (S portion)	Building 5 – Interior ground floor kitchen and storage room (N portion)	Building 5 – Interior stairwell	Building 5 – Ten Interior first floor offices	Building 6 - Exterior porch (NE corner)	Building 6 - Interior laundry (SW corner)	Building 8 - Exterior	Building 8 - Interior rooms	Building 9 - Exterior	Building 9 - Interior utility room (N portion)	Building 9 - Interior utility room (N portion)

		1					1			
DATE OF LAST INSPECTION (INCL. COMPANY NAME AND INITIALS)	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS, BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF		Jan 2013, JBS Environmental Pty Ltd, MS, BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF			
ACTIONS REQUIRED	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition		Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition
APPROX. QUANTI TY (m <sup>2</sup> )	50	20	200	200	L	40	30		50	08
MATERIAL CONDITION	Non friable – Good	Non friable – Good	Non friable - Good	Non friable – Good	Non friable – Good	Non friable – Good	Non friable – Good		Non friable – Good	Non friable – Good
ANALYTICAL RESULT	Presumed to contain asbestos	Presumed to contain asbestos	No asbestos detected	Presumed to contain asbestos	Presumed to conatin asbestos	Chrysotile, Amosite and Crocidolite asbestos detected	Presumed to contain asbestos	No asbestos detected	Chrysotile, Amosite and Crocidolite asbestos detected	A)Chrysotile asbestos detected B)No asbestos detected
PHOTO REGISTER REF.		<u>1</u> ס		16	17	18	19		20	
SAMPLE TYPE			Material			Material		Material	Material	Material
JBS SAMPLE NO.	∀/N	N/A	M13	∀/N	∀/N	M14	N/A	M16	7 LM	81M
MATERIAL DESCRIPTION	Blue linoleum flooring	Flat sheeting	Yellow vinyl flooring	Flat sheeting	'Zelemite' Flat sheet	Flat sheeting	Flat sheeting	Flat sheeting	Flat sheeting	A)Blue vinyl floor tiles B)Adhesive
SURFACE	Floor lining	Roof Eaves	Floor lining	Ceiling lining	Electrical backing board	Wall linings	First floor roof eaves	Wall lining	Ceiling lining	Floor lining
LOCATION	Building 9 - Interior rooms (SW portion)	Building 10 - Exterior	Building 10 - Interior rooms	Building 10 - Interior	Building 10 - Interior	Building 10 – Interior NE and NW corner rooms	Building 11 - Exterior	Building 11 – Exterior eastern add-on	Building 11 – Exterior western & southern porch	Building 11 - Interior ground floor laundry (SE corner)

Hazardous Materials Register Peat Island, Mooney Mooney NSW © 2013 JBS Environmental Pty Ltd



SAMPLE TYPE Material
22
Material 23
Material 24
Material
Material 25
Material
Material
Material



DATE OF LAST INSPECTION (INCL. COMPANY NAME AND INITIALS)		Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF		Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF		Jan 2013, JBS Environmental Pty Ltd, MS,BCF			
ACTIONS REQUIRED		Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition		Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition		Maintain undisturbed and in sealed condition			
APPROX. QUANTI TY (m <sup>2</sup> )		20	180	40	10	25		176 (total area)	40		50	5	1	72
MATERIAL CONDITION		Non friable – Good	Good	Good	Non friable – Good	Non friable - Good		Non friable – Good	Non friable - Good		Non friable – Good	Non friable - Good	Non friable – Good	Non friable – Good
ANALYTICAL RESULT	No asbestos detected	Presumed to contain asbestos	Chrysotile & Amosite Asbestos detected	Chrysotile, Amosite & Crocidolite asbestos detected	Presumed to contain asbestos	Chrysotile & Amosite Asbestos detected	No asbestos detected	Presumed to contain asbestos	Presumed to contain asbestos	No asbestos detected	Chrysotile asbestos detected	Presumed to contain asbestos	Presumed to contain asbestos	Presumed to contain asbestos
PHOTO REGISTER REF.			26			27					28			
SAMPLE TYPE	Material	Material	Material	Material	Material	Material	Material			Material	Material			
JBS SAMPLE NO.	M25	Consistent with sample M24	M26	M31	Consistent with sample M31	M32	M33	N/A	N/A	M29	M30	N/A	N/A	N/A
MATERIAL DESCRIPTION	Green Vinyl sheeting	Flat sheeting	Grey fibre cement material	Flat sheeting	Flat sheeting	Flat sheeting	Vinyl floor tiles	Flat sheeting	Flat sheeting	Flat sheeting	Flat sheeting	Flat sheeting	Flat sheeting	Blue and grey vinyl floor tiles
SURFACE	Floor lining	Wall lining	Flat sheeting	Roof eaves and northern porch ceiling lining	Ceiling lining	Wall lining	Floor lining	Ceiling lining	Northern and western wall linings	Roof eaves	Roof eaves and interior ceiling linings	In fill panels above door and windows	Loose flat sheeting and debris	Floor lining
LOCATION	Building 13 - Interior SW corner room	Building 13 – Interior SW corner room	Building 14 - Interior Ceiling Iining	Building 15 - Exterior	Building 15 - Interior bathroom	Building 15 - Interior bathroom	Building 15 - Interior rooms	Building 15 - Interior rooms	Building 15 – Interior northern room	Building 16 - Exterior	Building 18 – Exterior and Interior	Building 20 - Exterior NE face	Building 20 – Exterior sub building area	Building 20 – Interior northern room



MATERIAL JBS SAMPLE PHOTO DESCRIPTION NO. TYPE REGISTER		PHOTO REGISTE REF.	2	ANALYTICAL RESULT	MATERIAL CONDITION	APPROX. QUANTI TY (m <sup>2</sup> )	ACTIONS REQUIRED	DATE OF LAST INSPECTION (INCL. COMPANY NAME AND INITIALS)
Flat sheeting N/A				Presumed to contain asbestos	Non friable - Good	60	Maintain undisturbed and in sealed condition	Jan 2013, JBS Environmental Pty Ltd, MS,BCF
Flat sheeting N/A				Presumed to contain asbestos	Non friable – Good	85	Maintain undisturbed and in sealed condition	Jan 2013, JBS Environmental Pty Ltd, MS,BCF
Vinyl floor tiles				Presumed to contain asbestos	Non friable – Good	10	Maintain undisturbed and in sealed condition	Jan 2013, JBS Environmental Pty Ltd, MS,BCF
Flat sheeting N/A			29	Presumed to contain asbestos	Non friable - Good	30	Maintain undisturbed and in sealed condition	Jan 2013, JBS Environmental Pty Ltd, MS,BCF
Flat sheeting N/A				Presumed to contain asbestos	Non friable – Good	7.5	Maintain undisturbed and in sealed condition	Jan 2013, JBS Environmental Pty Ltd, MS,BCF
Flat sheeting N/A				Presumed to contain asbestos	Non friable – Good	60	Maintain undisturbed and in sealed condition	Jan 2013, JBS Environmental Pty Ltd, MS,BCF
Flat sheeting N/A				Presumed to contain asbestos	Non friable – Good	ى	Maintain undisturbed and in sealed condition	Jan 2013, JBS Environmental Pty Ltd, MS,BCF
Vinyl floor tiles N/A				Presumed to contain asbestos	Non friable - Good	60	Maintain undisturbed and in sealed condition	Jan 2013, JBS Environmental Pty Ltd, MS,BCF
Flat sheeting N/A				Presumed to contain asbestos	Non friable – Good	45	Maintain undisturbed and in sealed condition	Jan 2013, JBS Environmental Pty Ltd, MS,BCF
Flat sheeting N/A				Presumed to contain asbestos	Non friable – Good	ר. ס	Maintain undisturbed and in sealed condition	Jan 2013, JBS Environmental Pty Ltd, MS,BCF
Flat sheeting 130117-bcf- Material 03	Mater	ial		No asbestos detected				
Flat sheeting N/A				Presumed to contain asbestos	Non friable – Good	25	Maintain undisturbed and in sealed condition	Jan 2013, JBS Environmental Pty Ltd, MS,BCF



JBS SAMPLEPHOTO REGISTERANALYTICAL RATERIALMATERIAL CONDITIONAPPROX.NO.TYPEREGISTER RESULTRALYTICAL CONDITIONMATERIAL CUANTITYMATERIAL CUANTITY130117-bcf-MaterialMaterialChrysotile asbestosNon friable- Good65130117-bcf-MaterialMaterialChrysotile asbestosNon friable-65
S
Presumed to contain Non friable – Good
Presumed to contain Non friable – asbestos Good
Presumed to contain Non friable asbestos Good
Presumed to contain Non friable asbestos Good
Presumed to contain asbestos
Presumed to contain asbestos
Presumed to contain asbestos
130117-bcf- 05
Presumed to contain asbestos

Hazardous Materials Register Peat Island, Mooney Mooney NSW © 2013 JBS Environmental Pty Ltd



DATE OF LAST INSPECTION (INCL. COMPANY NAME AND INITIALS)	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF		Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Refer 65 Kowan Rd details	Jan 2013, JBS Environmental Pty Ltd, MS RCF			
ACTIONS REQUIRED	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Remove broken pieces, seal exposed edges. Maintain remaining sheeting undisturbed and in sealed condition	Maintain undisturbed and in sealed condition		Maintain undisturbed and in sealed condition	Refer 65 Kowan Rd details	Maintain undisturbed and in sealed condition			
APPROX. QUANTI TY (m <sup>2</sup> )	ى	50	0.5	20	15	15	25	ъ		15	Refer 65 Kowan Rd details	15
MATERIAL CONDITION	Non friable - Good	Non friable – Good	Non friable – Good	Non friable – Fair	Non friable – Good	Non friable – Fair	Non friable – Poor	Non friable – Good		Friable - Good	Refer 65 Kowan Rd for details	Non friable – Good
ANALYTICAL RESULT	Presumed to contain asbestos	Presumed to contain asbestos	Presumed to contain asbestos	Chrysotile, Amosite & Crocidolite asbestos detected	Chrysotile, Amosite & Crocidolite asbestos detected	No asbestos detected, SMF detected	Chrysotile asbestos detected	Presumed to contain asbestos	No asbestos detected	Chrysotile asbestos detected	Presumed to be consistent with 65 Kowan Rd	Presumed to contain asbestos
PHOTO REGISTER REF.					30		31					
SAMPLE TYPE				Material	Material	Material	Material		Material	Fibres		
JBS SAMPLE NO.	N/A	N/A	N/A	130220_6	130220_7	130220_8	130220_9	Refer sample 130220_9	130220_10A	130220_10B		N/A
MATERIAL DESCRIPTION	Flat sheeting	Flat sheeting	'Zelemite' Flat sheeting	Flat sheeting	Flat sheeting	Linoleum sheeting	Flat sheeting	Flat sheeting	Vinyl sheeting	Adhesive backing		Flat sheeting
SURFACE	Roof eaves	Roof eaves	Electrical Backing board	Wall and ceiling linings	Wall linings	Floor linings	Wall linings	Cupboard linings	-			Roof eaves
LOCATION	Shed 3 – Exterior	65 Kowan Rd Cottage – Exterior	65 Kowan Rd Cottage – Exterior	65 Kowan Rd Cottage – Interior, Laundry	65 Kowan Rd Cottage – Interior, Kitchen	65 Kowan Rd Cottage – Interior, Kitchen and Laundry	65 Kowan Rd Cottage – Interior, Bathroom	65 Kowan Rd Cottage – Interior, Hallway (adj. to bathroom)	65 Kowan Rd Cottage –	Interior, Western bedroom	51-64 & 66-68 Kowan Rd Cottages	Community Library / Former School –

Hazardous Materials Register Peat Island, Mooney Mooney NSW © 2013 JBS Environmental Pty Ltd



. O	_td,	_td,	_td,	_td,	_td,	_td,	_td,	_td,	_td,	_td,		
DATE OF LAST INSPECTION (INCL. COMPANY NAME AND INITIALS)	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF	013, ental Pty Ltd, 3CF	013, ental Pty Ltd, 3CF	Jan 2013, JBS Environmental Pty Ltd, MS,BCF		
DATE OF LAST SPECTION (IN MPANY NAME / INITIALS)	Jan 2013 nvironmenta MS,BCF	Jan 2013 nvironmenta MS, BCF	Jan 2013, nvironmenta MS, BCF	Jan 2013, nvironmenta MS, BCF	Jan 2013, nvironmenta MS,BCF	Jan 2013, nvironmenta MS,BCF	Jan 2013, nvironmenta MS,BCF	Jan 2013, Environmental MS,BCF	Jan 2013, JBS Environmental MS,BCF	Jan 2013. nvironmenta MS, BCF		
CON	JBS E	JBS E	JBS E	JBS E	JBS E	JBS E	JBS E	JBS E	JBS E	JBS E		
QUIRED	sturbed condition	Maintain undisturbed and in sealed condition	oken xposed ntain neeting and in dition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition	sturbed condition	Maintain undisturbed and in sealed condition	Maintain undisturbed and in sealed condition		
ACTIONS REQUIRED	Maintain undisturbed and in sealed condition	Maintain undisturbed nd in sealed conditior	Remove broken pieces, seal exposed edges. Maintain remaining sheeting undisturbed and in sealed condition	Maintain undisturbed ind in sealed condition	Maintain undisturbed ind in sealed condition	Maintain undisturbed ind in sealed conditior	Maintain undisturbed ind in sealed conditior	Maintain undisturbed and in sealed condition	Maintain undisturbed nd in sealed conditior	Maintain undisturbed ind in sealed conditior		
ACTI	Main and ir	Main and ir	pieco pieco eco rem und seo seo	Main and ir		Main and ir	Main and ir	Main and ir	Main and ir	Main and ir		
APPROX. QUANTI TY (m²)	7.5	210	70	З	4 (combined area)	7	30	33	45	10		
	I I	I Đ	l U	l B	1	l Đ	l Đ	е I	I Đ	- е		
MATERIAL CONDITION	Non friable – Good	Non friable – Good	Non friable – Poor	Non friable – Good	Non friable Good	Non friable – Good	Non friable – Good	Non friable Good	Non friable – Good	Non friable – Good		
CAL	contain s	contain s	contain s	contain s	contain s	contain s	contain s	contain s	contain s	contain s	tos d	sos
ANALYTICAL RESULT	Presumed to contain asbestos	Presumed to contain asbestos	Presumed to contain asbestos	Presumed to contain asbestos	Presumed to contain asbestos	Presumed to contain asbestos	Presumed to contain asbestos	Presumed to contain asbestos	Presumed to contain asbestos	Presumed to contain asbestos	No asbestos detected	No asbestos detected
A	Presu	Presu	Presu	Presu	Presu	Presu	Presu	Presu	Presu	Presu	2	2
PHOTO REGISTER REF.												
SAMPLE TYPE											Material	Material
JBS SAMPLE NO.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	130220_1	130220_2
IAL TION	ting	ting	ting	ting	ting	ting	ting	ting	ting	ting	· tiles	floor Jg
MATERIAL DESCRIPTION	Flat sheeting	Flat sheeting	Flat sheeting	Flat sheeting	Flat sheeting	Flat sheeting	Flat sheeting	Flat sheeting	Flat sheeting	Flat sheeting	Vinyl floor tiles	Linoleum floor sheeting
SURFACE	Porch ceiling lining	Wall linings	Ceiling lining	Roof eaves	Roof eaves	Roof eaves	Wall linings	Roof eaves	Ceiling lining	Wall lining	Floor lining	Floor lining
SURI	Porch lini	Wall I	Ceiling	Roof	Roof	Roof	Wall I	Roof	Ceiling	Wall	Floor	Floor
II ON	ner xom – rior	ner Jom – ior	ner 10m – 10r	itchen ng – ior, face	locks - rior and ile)	oom – rior n male ts)	oom – rior n male male ts)	Station erior	Station erior awning	Station srior, n face	Station	Station
LOCATI ON	Former Classroom Exterior	Former Classroom Interior	Former Classroom Interior	Toilet/Kitchen Building – Exterior, western face	Toilet Blocks Exterior (male and female)	Storeroom – Exterior (between male and female toilets)	Storeroom – Exterior (between male and female toilets)	Service Station - Exterior	Service Station – Exterior bowser awning	Service Station – Exterior, southern face	Service Station – Interior	Service Station - Interior



LOCATI ON	SURFACE	MATERIAL DESCRIPTION	JBS SAMPLE NO.	SAMPLE TYPE	PHOTO REGISTER REF.	ANALYTICAL RESULT	MATERIAL CONDITION	APPROX. QUANTI TY (m <sup>2</sup> )	ACTIONS REQUIRED	DATE OF LAST INSPECTION (INCL. COMPANY NAME AND INITIALS)
	Wall lining	Flat sheeting	130220_3	Material		No asbestos detected				
L	Lower half wall linings	Flat sheeting	130220_4	Material		Chrysotile asbestos detected	Non friable – Good	2	Maintain undisturbed and in sealed condition	Jan 2013, JBS Environmental Pty Ltd, MS,BCF
Service Station - Interior	Ceiling lining	Flat sheeting	130220_5	Material	32	Chrysotile, Amosite & Crocidolite asbestos detected	Non friable – Good	150	Maintain undisturbed and in sealed condition	Jan 2013, JBS Environmental Pty Ltd, MS,BCF
Service Station - Interior	Settled dust	Dust	130220_D1	Dust		Chrysotile & Crocidolite asbestos detected	Friable	10	Remove prior to demolition	Jan 2013, JBS Environmental Pty Ltd, MS,BCF
	Ceiling lining	Flat sheeting	N/A			Presumed to contain asbestos	Non friable – Good	10	Maintain undisturbed and in sealed condition	Jan 2013, JBS Environmental Pty Ltd, MS,BCF
Nurses Dormitory – Exterior, Porch windows	Infill panels beneath windows	Flat sheeting	M34 M35	Material		Chrysotile & Amosite Asbestos detected	Non friable – Good	25	Maintain undisturbed and in sealed condition	Jan 2013, JBS Environmental Pty Ltd, MS,BCF
Nurses Dormitory – Exterior, eastern face	Roof eaves	Flat sheeting	A/N			Presumed to contain asbestos	Non friable – Good	20	Maintain undisturbed and in sealed condition	Jan 2013, JBS Environmental Pty Ltd, MS,BCF
	Roof eaves	Flat sheeting	N/A			Presumed to contain asbestos	Non friable – Good	30	Maintain undisturbed and in sealed condition	Jan 2013, JBS Environmental Pty Ltd, MS,BCF
Nurses Dormitory – Exterior annex, western face	Ceiling lining	Flat sheeting	A/N			Presumed to contain asbestos	Non friable – Good	Ð	Maintain undisturbed and in sealed condition	Jan 2013, JBS Environmental Pty Ltd, MS,BCF
Nurses Dormitory Interior ground floor hallway	'Zelemite' electrical backing board	Flat sheeting	M36	Material		Chrysotile asbestos detected	Non friable – Good	1	Maintain undisturbed and in sealed condition	Jan 2013, JBS Environmental Pty Ltd, MS,BCF
	Ceiling linings	Flat sheeting	A/N			Presumed to contain asbestos	Non friable – Good	10	Maintain undisturbed and in sealed condition	Jan 2013, JBS Environmental Pty Ltd, MS,BCF
	Ceiling linings	Flat sheeting	N/A			Presumed to contain asbestos	Non friable – Good	10	Maintain undisturbed and in sealed condition	Jan 2013, JBS Environmental Pty Ltd, MS,BCF

Hazardous Materials Register Peat Island, Mooney Mooney NSW © 2013 JBS Environmental Pty Ltd

Appendix C Laboratory Results and Chain of Custody Documentation



Envirolab Services Pty Ltd ABN 37 112 535 645 12 Ashley St Chatswood NSW 2067 ph 02 9910 6200 fax 02 9910 6201 enquiries@envirolabservices.com.au www.envirolabservices.com.au

### **CERTIFICATE OF ANALYSIS**

84381

Client: JBS Environmental Pty Ltd P.O. Box 940 MASCOT NSW 1460

Attention: Michael Samuel, Charlie Furr

### Sample log in details:

Your Reference:	42531, Peat Is	land	HAZMAT
No. of samples:	43 materials		
Date samples received / completed instructions received	18/01/13	/	18/01/13

### Analysis Details:

Please refer to the following pages for results, methodology summary and quality control data. Samples were analysed as received from the client. Results relate specifically to the samples as received. Results are reported on a dry weight basis for solids and on an as received basis for other matrices. *Please refer to the last page of this report for any comments relating to the results.* 

### **Report Details:**

 Date results requested by: / Issue Date:
 25/01/13
 / 25/01/13

 Date of Preliminary Report:
 Not Issued

 NATA accreditation number 2901. This document shall not be reproduced except in full.

 Accredited for compliance with ISO/IEC 17025.

 Tests not covered by NATA are denoted with \*.

### **Results Approved By:**

Lulu Guo Approved Signatory

Envirolab Reference: Revision No: 84381 R 00 Alex MacLean

Chemist



OMPETENCE

Asbestos ID - materials						
Our Reference:	UNITS	84381-1	84381-2	84381-3	84381-4	84381-5
Your Reference		M1	M2	M3	M4	M5
Date Sampled		14/01/13	14/01/13	14/01/13	14/01/13	14/01/13
Type of sample		material	material	material	material	material
Date analysed	-	22/01/2013	22/01/2013	22/01/2013	22/01/2013	22/01/2013
Mass / Dimension of Sample	-	10x6x1mm	22x8x2mm	13x9x3mm	10x10x2mm	87x58x1mm
Sample Description	-	Grey fibre cement material	Blue brittle vinyl tile & fibre backing	Pink fibre cement material	Grey fibre cement material	Beige flexible vinyl sheet & adhesive
Asbestos ID in materials	-	Chrysotile asbestos detected Amosite asbestos detected Crocidolite asbestos detected	No asbestos detected	No asbestos detected	Chrysotile asbestos detected	No asbestos detected Synthetic mineral fibre detected

Asbestos ID - materials						
Our Reference:	UNITS	84381-6	84381-7	84381-8	84381-9	84381-10
Your Reference		M6	M7	M8	M9	M10
Date Sampled		14/01/13	14/01/13	14/01/13	14/01/13	14/01/13
Type of sample		material	material	material	material	material
Date analysed	-	22/01/2013	22/01/2013	22/01/2013	22/01/2013	22/01/2013
Mass/Dimension of Sample	-	6x6x1mm	18x6x3mm	16x5x1mm	74x73x1mm	33x27x2mm
Sample Description	-	Grey fibre cement material	Grey fibre cement material	Grey fibre cement material	Blue semi- flexible vinyl sheet	A)Grey brittle vinyl tile B) Adhesive
Asbestos ID in materials	-	Chrysotile asbestos detected Amosite asbestos detected Crocidolite asbestos detected	Chrysotile asbestos detected	Chrysotile asbestos detected	No asbestos detected	A)Chrysotile asbestos detected B)No asbestos detected

Asbestos ID - materials						
Our Reference:	UNITS	84381-11	84381-12	84381-13	84381-14	84381-15
Your Reference		M11	M12	M13	M14	M15
Date Sampled		14/01/13	14/01/13	14/01/13	14/01/13	14/01/13
Type of sample		material	material	material	material	material
Date analysed	-	22/01/2013	22/01/2013	22/01/2013	22/01/2013	22/01/2013
Mass / Dimension of Sample	-	11x6x1mm	57x38x3mm	72x48x3mm	16x5x1mm	63x49x3mm
Sample Description	-	Grey fibre cement material	A)Grey brittle vinyl tile B) Adhesive	Beige flexible vinyl sheet & adhesive	Grey fibre cement material	A)Yellow brittle vinyl tile B)Adhesive
Asbestos ID in materials	-	Chrysotile asbestos detected	A)Chrysotile asbestos detected B)No asbestos detected	No asbestos detected	Chrysotile asbestos detected Amosite asbestos detected Crocidolite asbestos detected	A)Chrysotile asbestos detected B)No asbestos detected
Asbestos ID - materials						
Our Reference:	UNITS	84381-16	84381-17	84381-18	84381-19	84381-20
Your Reference		M16	M17	M18	M19	M20
Date Sampled		14/01/13	14/01/13	14/01/13	15/01/13	15/01/13
Type of sample		material	material	material	material	material
Date analysed	-	22/01/2013	22/01/2013	22/01/2013	22/01/2013	22/01/2013
Mass / Dimension of Sample	-	15x8x2mm	28x11x5mm	81x72x2mm	100x54x3mm	65x63x2mm
Sample Description	-	Grey fibre cement material	Grey compressed fibre cement material	A)Grey brittle vinyl tile B) Adhesive	A)Grey brittle vinyl tile B) Adhesive	Beige flexible vinyl sheet & adhesive
Asbestos ID in materials	-	No asbestos detected	Chrysotile asbestos detected Amosite asbestos detected Crocidolite asbestos detected	A)Chrysotile asbestos detected B)No asbestos detected	A)Chrysotile asbestos detected B)No asbestos detected	No asbestos detected

Asbestos ID - materials						
Our Reference:	UNITS	84381-21	84381-22	84381-23	84381-24	84381-25
Your Reference	UNITS	04301-21 M21	04301-22 M22	04301-23 M23	04301-24 M24	04301-25 M25
						-
Date Sampled		15/01/13	15/01/13	15/01/13	15/01/13	15/01/13
Type of sample		material	material	material	material	material
Date analysed	-	22/01/2013	22/01/2013	22/01/2013	22/01/2013	22/01/2013
Mass / Dimension of Sample	-	65x62x3mm	14x2x1mm	67x44x2mm	12x11x2mm	74x72x2mm
Sample Description	-	A)Blue brittle vinyl tile B) Adhesive	Grey fibre cement material	Green flexible vinyl sheet & adhesive	Grey fibre cement material	Green flexible vinyl sheet & adhesive
Asbestos ID in materials	-	A)Chrysotile asbestos detected B)No asbestos detected	Chrysotile asbestos detected	No asbestos detected	Chrysotile asbestos detected	No asbestos detected
Askasta ID mataisla						
Asbestos ID - materials	UNITS	84381-26	04004.07	84381-28	04004.00	84381-30
Our Reference:			84381-27		84381-29	
Your Reference		M26	M27	M28	M29	M30
Date Sampled		15/01/13	16/01/13	16/01/13	16/01/13	16/01/13
Type of sample		material	material	material	material	material
Date analysed	-	22/01/2013	22/01/2013	22/01/2013	22/01/2013	22/01/2013
Mass / Dimension of Sample	-	14x4x2mm	5x3x1mm	76x48x3mm	22x9x1mm	11x6x3mm
Sample Description	-	Grey fibre cement material	Grey fibre cement material	A)Grey brittle vinyl tile B) Adhesive	Grey fibre cement material	Beige fibre cement material
Asbestos ID in materials	_	Chrysotile asbestos detected Amosite asbestos	Chrysotile asbestos detected Amosite asbestos	A)Chrysotile asbestos detected B)No asbestos	No asbestos detected	Chrysotile asbestos detected
		detected	detected	detected		

Asbestos ID - materials						
Our Reference:	UNITS	84381-31	84381-32	84381-33	84381-34	84381-35
Your Reference		M31	M32	M33	M34	M35
Date Sampled		16/01/13	16/01/13	16/01/13	16/01/13	16/01/13
Type of sample		material	material	material	material	material
Date analysed	-	22/01/2013	22/01/2013	22/01/2013	22/01/2013	22/01/2013
Mass / Dimension of Sample	-	15x10x2mm	29x23x4mm	70x68x3mm	20x9x1mm	63x42x4mm
Sample Description	-	Blue fibre cement	Grey compressed	Grey flexible vinyl sheet &	Grey fibre cement	Grey compressed
		material	fibre cement material	adhesive	material	fibre cement material
Asbestos ID in materials	-	Chrysotile	Chrysotile	No asbestos	Chrysotile	Chrysotile
		asbestos detected	asbestos detected	detected	asbestos detected	asbestos detected
		Amosite	Amosite		Amosite	Amosite
		asbestos	asbestos		asbestos	asbestos
		detected	detected		detected	detected
		Crocidolite				
		asbestos				
		detected				
Asbestos ID - materials						
Our Reference:	UNITS	84381-36	84381-37	84381-38	84381-39	84381-41
Your Reference		M36	130117-bcf-	130117-bcf-	130117-bcf-	130117-bcf-
			01	02	03	05
Date Sampled		16/01/13	17/01/13	17/01/13	17/01/13	17/01/13
Type of sample		material	material	material	material	material

22/01/2013

8x4x1mm

Brown soft

fibrous

bituminous

material

Chrysotile

asbestos

detected

-

\_

22/01/2013

30x15x3mm

Beige layered

fibre cement

material

Chrysotile

asbestos

detected

22/01/2013

21x14x1mm

Grey fibre

cement

material

No asbestos

detected

22/01/2013

19x16x1mm

Grey fibre

cement

material

No asbestos

detected

22/01/2013

30x11x3mm

Beige layered

fibre cement

material

Chrysotile

asbestos

detected

Date analysed

Mass/Dimension of Sample

Sample Description

Asbestos ID in materials

Asbestos ID - materials		
Our Reference:	UNITS	84381-42
Your Reference		130117-bcf-
		06
Date Sampled		17/01/13
Type of sample		material
Date analysed	-	22/01/2013
Mass / Dimension of Sample	-	48x17x6mm
Sample Description	-	Brown fluffy vitreous fibrous insulation
Asbestos ID in materials	-	No asbestos detected Synthetic mineral fibre detected

### Client Reference:

### 42531, Peat Island HAZMAT

Lead in Paint			
Our Reference:	UNITS	84381-40	84381-43
Your Reference		130117-bcf-	130117-bcf-
		04	07
Date Sampled		17/01/13	17/01/13
Type of sample		material	material
Lead in paint	%w/w	0.40	0.30

	MethodID	Methodology Summary
-		Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
	Metals-004	Digestion of Paint chips/scrapings/liquids for Metals determination by ICP-AES/MS and or CV/AAS.

QUALITYCONTROL	UNITS	PQL	METHOD	Blank				
Asbestos ID - materials								
Date analysed	-			[NT]				
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Lead in Paint						Base II Duplicate II % RPD		
Lead in paint	%w/w	0.05	Metals-004	<0.05	84381-40	0.40  0.40  RPD:0	LCS-1	99%

### **Report Comments:**

Asbestos ID was analysed by Approved	Identifier: Lulu Guo	
Asbestos ID was authorised by Approve	d Signatory: Lulu Guo	
INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	
NA: Test not required	RPD: Relative Percent Difference	
<: Less than	>: Greater than	

NT: Not tested NA: Test not required LCS: Laboratory Control Sample

### **Quality Control Definitions**

**Blank**: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples. **Duplicate**: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike : A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist. LCS (Laboratory Control Sample) : This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

**Surrogate Spike:** Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

### Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batched of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable. Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.

1	lu -
	Ě
Ű	JEN
1	NNO
5	IRC
-	ENV
	1
-1	R_
-	

# CHAIN OF CUSTODY

CEND DEDODT TO.				Januer IC. F	
	5 R	FULL SEND INVOICE TO: C PLC N	а РНОИЕ: 824-5	0300	II. churrelesenere
DATE NEEDED BY:	oterracia		C IEVEL:	NEPM 1999 ( )	mounter the proved with all
SPECIAL HAN	COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:	JR DISPOSAL:	ratesd s		•
SAMPLE ID	MATRIX D	D A T E   TIME   TYPE & PRESERVATIVE	A Hg I		NOTES
-12	MATERAL M	HA11 [3]   X bacy			
~					
212					
MA					
W15					
MG					
FX					
MS					
MS					
M(0					ENVIROLAB Envirolab Services
MI					Chatswoo
212					1 28 1 28 1
ein					Date Received: 18 /01//3
きて					Time Received: 15:2S
MIS					Temm. Cool/America
MIR					Colding: Ice/Icepack
R L	//				Security Milacy Broken/None
MIS	Ð			2 2	
RELINQUISHED BY	. (	METHOD OF SHIPMENT:		RECEIVED BY:	FOR RECEIVING LAB USE ONLY
hack	Samuel DATE;	CONSIGNMENT NOTE NO.		NCI DATE: SIGINS	COOLER SEAL - Yes No Intact
152	_	TRANSPORT CO.		1000	
	DATE:	CONSIGNMENT NOTE NO.	NAME:	DATE:	o Intact
		DF: CODLER TEMP TIM deg C C C C C C C C C C C C C C C C C C C	OF:		COOLER/TEMP deg C

Suite 2, 595 Gardeners Road MASCOT NSW 2020 PO Box 940 MASCOT NSW 1460 www.ibsgroup.com.au

•

JBS Environmental Pty Ltd ABN 67 071 842 638 Phone: (02) 8338-1011 Fax: (02) 8338-1700 IMSO Forms013 - Chain of Custody