ENVIRONMENTAL INVESTIGATION SERVICES

REPORT

TO

KGS (VIC) PTY LTD

ON

PRELIMINARY HAZARDOUS BUILDING MATERIALS SURVEY REPORT

FOR

PROPOSED INDUSTRIAL DEVELOPMENT

AT

14-28 GEORGE STREET, LEICHHARDT

OCTOBER 2008

REF: E22459K.PRELIM.HM

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1 INTRODUCTION

KGS (Vic) Pty Ltd commissioned Environmental Investigation Services (EIS), a division of Jeffery & Katauskas Pty Ltd (J&K), to undertake a preliminary hazardous building materials assessment at 14-28 George Street, Leichhardt.

The site location is shown on Figure 1 and the investigation was confined to the site boundaries as shown on Figure 2. The proposed development has not been specified, however may include the refurbishment or demolition of the existing building structures.

The assessment was undertaken generally in accordance with an EIS proposal of 14 October 2008 and written acceptance from Richard Hughes via email correspondence on behalf of KGS (Vic) Pty Ltd on 15 October 2008.

This report describes the assessment procedures and presents the results of the site inspection, together with recommendations for additional inspections and sampling.

A previous hazardous materials assessment was undertaken by New Environment Management and Technology Pty Limited and the results are contained within the document titled "Hazardous Materials Report, Kolotex Building 22 George Street Leichhardt, client: Kolotex Australia Pty Ltd" Ref: 2769\1\HMR, dated 15 December 1999.

2 ASSESSMENT OBJECTIVES

2.1 Investigation Objectives

The objective of the investigation was to prepare a preliminary assessment of the extent of hazardous building materials including asbestos fibres, lead paint, lead in accumulated dust, Synthetic Mineral Fibre (SMF) and polychlorinated biphenyls (PCBs). The preliminary report is for the purposes of assessing the condition and extent of hazardous building materials at the site as reported in the previous report and to provide recommendations for any additional site investigation/s that would be required for the purposes of demolition or refurbishment of the building complex.

2.2 Scope of Work

The scope of work undertaken to achieve the objective included:

- Review previous New Environment Management and Technology Pty Limited report, Ref: 2769\1\HMR, dated 15 December 1999.
- A walkover inspection of the site to identify the presence of hazardous materials referred to in the above New Environment Management and Technology report.
- Preparation of a preliminary Hazardous Materials report presenting a tabulated list of hazardous building materials at the site and to provide recommendations for future detailed inspections and sampling of hazardous materials.

No sampling of hazardous materials was undertaken as part of the site inspection.

The investigation has not been designed to constitute a hazardous materials register or an Asbestos Register.

Field work for this investigation was undertaken on 23 October 2008.

3 SITE DESCRIPTION

At the time of the field investigation the site was occupied by a disused industrial building complex which formerly consisted of the Kolotex manufacturing and distribution centre for goods including underwear, socks, stockings etc. The building complex was bound by industrial buildings to the north, Upward Street to the west, George Street to the east and McAleer Street to the south.

For the purposes of this report the building complex has been separated into the following building numbers:

Building 1
Building 1 was located at the north-east section of the site and was a multi storey building constructed with timber/steel framework, brick walls, concrete or timber flooring and corrugated sheet metal roof. The ground floor level was formerly used as a sewing room, toilets and locker rooms. The first floor was formerly used as an office and plant room. Level 2 was a small open warehouse formerly referred to as the 'Upstairs Hosiery Packing' and contained air conditioning duct work. A small, low ceiling store room was situated at the south-east corner of the Upstairs Hosiery Packing and contained a hot water tank. An access way of approximately 1m separated Building 1 from the building to the south (Building 2). Building 1 was adjoining site buildings to the west (Building 4).

Building 2
The south-east section of the site was occupied by a two storey building (Building 2), which extended to the south site boundary in the east section of the site. The building was constructed with waffle slab flooring, brick walls, concrete columns and flat concrete roof. The ground floor level included open areas with smaller offices, facilities and rooms divided by timber studded walls. The upper level was generally open with the exception of a small office, finishing room, fan rooms and flammable liquid store. A fire stair well, lift shaft, services shaft and toilets / kitchenette were located towards the centre of the building on each level. The building adjoined the site buildings to the west.

Building 3
The south-west section of the site was occupied by a rectangular shaped building (Building 3) constructed with brick walls, steel framing and concrete slab flooring. The building adjoined site buildings to the north (Building 4) and east (Building 2). Building 3 interior was generally a single level open warehouse. The south section of the building was a gable roof, clad with corrugated fibre cement sheet. The north-west section of the building had a lower flat roof clad in corrugated sheet metal. An external electrical substation was situated in a recessed area in the north east corner of the building, adjacent to Upward Street. The central-north roof section was an enclosed walkway that provided access to the gable roof section to the south. The north-east

section of the building was a roof top courtyard and air conditioning plant room tower. A brick/concrete air conditioning plant room tower was also situated at the south-west section of the building. A flammable goods store was located in the south-east internal corner of the building. Banks of electrical distribution cabinets were located in the north-west section of the building. The building was understood to have formerly been used as a knitting room.

Building 4
Building 4 was situated at the central west section of the site. The building was bound by the electrical substation to the south, the Boiler House to the north and Upward Street to the west. The building was a two level brick construction with a 5 bay sawtooth roof clad in corrugated asbestos cement sheet. The ground level was formerly used as a dye house, batching room, toe closing department and ATC room. The first floor was used as a hosiery finishing room and is generally an open warehouse.

Building 5
Building 5 was the former Boiler House that was undergoing demolition at the time of the inspection.

Building 6
Building 6 was located in the north-west section of the site adjacent to Upward Street and to the north of Building 5. The building was an open warehouse of single level construction with brick walls, concrete slab floor and gable roof clad in corrugated sheet metal.

Building 7
Building 7 was located at the north end of the west section of the site and was bound by Upward Street to the west and Building 6 to the south. The building was an open warehouse of single level construction with brick walls, concrete slab floor and gable roof clad in corrugated sheet metal.

Building 8
Building 8 is a north to south oriented section of the site that abuts the east ends of Building 5 and Building 6 and the south end of Building 7. This building was constructed with brick walls, concrete slab flooring and a 4 bay sawtooth roof clad in corrugated asbestos cement sheeting. A raised roof was located at the north end of the building. The west side of the building was occupied by a number of internal offices with timber stud walls. The north section formerly housed a drying oven. The east section of the building was a north to south oriented corridor.

Refer to Figure 2: Site Layout Plan, for a site drawing indicating the above building references.

4 ASSESSMENT METHODOLOGY AND PROCEDURES

The assessment included a limited visual inspection of the buildings to assess the presence of hazardous building materials including asbestos, SMF, PCBs and lead. No sampling of materials was undertaken during the inspection. The site inspection included a visual inspection of the hazardous building materials previously identified in the report by New Environment. The presence/absence, condition and approximate extent of these materials were recorded. Note that this inspection was limited and generally did not include a detailed investigation of materials not included in the previous New Environment report. However, if other visually obvious hazardous building materials were observed during the inspection they were recorded.

5 RESULTS OF INVESTIGATION

The results of the inspection are summarised in the following tables for each building number at the Kolotex industrial complex.

5.1 Building 1

Material Type and Location	Material Status	Sample/Test No	Photo No	Approx. Extent	Condition	Bonded/ Friable	Recommendations for Additional Inspections
Asbestos Fibre Containing Materials							
Flat fibre cement sheet Ground level exterior, parapet above eastern front entry	Presumed to contain asbestos	-	-	30m^2	Generally intact, minor damage	Bonded	Requires confirmation sampling
Flat fibre cement sheet Ground level, Men's toilets, bulkhead lining under extractor fan	Presumed to contain asbestos	-	-	10m^2	Generally intact, minor damage	Bonded	Requires confirmation sampling
Green coloured vinyl floor tiles Ground level, west entry to locker rooms, floor covering	Presumed to contain asbestos	-	-	25m^2	Generally intact, minor damage	Bonded	Requires confirmation sampling
Linoleum sheet Ground level, medical room, floor covering	Presumed to contain asbestos	-	-	20m^2	Generally intact, minor damage	Unknown	Requires confirmation sampling
Fire door insulation core Ground level, sliding doors between west end of building & central corridor	Presumed to contain asbestos	-	-	2 x doors	Intact	Presumed friable	Requires confirmation sampling
Insulation to pipe work Level 1 plant room, E-W oriented pipes sheathed in red coloured metal	Presumed to contain asbestos	-	1	15Lm (Linear meters)	Intact	Friable	Requires confirmation sampling and additional investigation as pipe work penetrates the west wall of the plant room and continues west

5.1 Building 1

Material Type and Location	Material Status	Sample/Test No	Photo No	Approx. Extent	Condition	Bonded/ Friable	Recommendations for Additional Inspections
Black backing board Level 1 plant room, Air conditioning electrical distribution cabinet	Presumed to contain asbestos	-	2	2m^2	Generally intact, minor damage	Bonded	Requires confirmation sampling
White coloured vinyl floor tiles Level 1 corridor to plant room, floor covering	Presumed to contain asbestos	-	-	20m^2	Generally intact, minor damage	Bonded	Requires confirmation sampling
Insulation to pipe work Level 1 ceiling cavity, calico wrapped reticulation system throughout offices	Presumed to contain asbestos	-	3	80Lm	Not determined	Friable	Requires confirmation sampling and additional investigation as pipe work is extensive throughout the ceiling cavity
Insulation to pipe work Level 1, NW corner, foil covered section of pipe work adjacent to hoist	Contains asbestos	Sampled by New Environment (Sample 2769/pg7)	4	6Lm	Generally intact, minor damage	Friable	Requires additional investigation as pipe work penetrates the north wall and continues
Fire door insulation core Level 1, NE corner, sliding door to north fire exit	Presumed to contain asbestos	-	-	1 x door	Intact	Presumed friable	Requires confirmation sampling
Insulation to pipe work Level 2, SE corner, foil covered pipe work behind air conditioning ducting	Presumed to contain asbestos	-	5	4Lm (plus presumed 20Lm to adjacent building)	Generally intact, minor damage	Friable	Requires confirmation sampling and additional investigation as pipe work penetrates the floor and continues

5.1 Building 1

Material Type and Location	Material Status	Sample/Test No	Photo No	Approx. Extent	Condition	Bonded/ Friable	Recommendations for Additional Inspections
Insulation to pipe work Level 2, store room with low ceiling situated at SE corner of building, foil covered pipe work behind hot water tank	Contains asbestos	Sampled by New Environment (Sample 2769/pg11)	6	3Lm	Generally intact, minor damage	Friable	Requires confirmation sampling

Lead Containing Materials

No significantly deteriorated paint systems were identified that would require remedial works or add significant variation to demolition works.

In consideration of the age of the building, accumulated dust within shafts, voids, ceiling, roof and wall cavities throughout the building are considered likely to contain potentially hazardous levels of lead. Consideration should be given to the removal of the dust or dust suppression techniques during the refurbishment / demolition of the building.

Polychlorinated Biphenyls (PCBs) Containing Electrical Equipment

The majority of older light fittings throughout the building are considered to house PCB containing capacitors. No visual evidence of PCB oil leakage was noted from any light fittings. Electrical capacitors are readily removed prior to demolition, placed in plastic lined drums and disposed of as PCB Scheduled Waste. These works require minimal variation to refurbishment / demolition works.

Synthetic Mineral Fibre Containing Materials

SMF material were identified in the form of insulation to reticulated pipe work, insulation to air conditioning ducting and insulation within walls and ceiling cavities. These materials were in a stable condition during the time of the inspection and do not require remedial works. Consideration should be given to the correct handling of SMF materials and fibre suppression techniques during the refurbishment / demolition of the building.

5.2 Building 2

Material Type and Location	Material Status	Sample/Test No	Photo No	Approx. Extent	Condition	Bonded/ Friable	Recommendations for Additional Inspections
Asbestos Fibre Containing Materials							
Fire door insulation core Level 1, west side, sliding doors to finishing Room	Presumed to contain asbestos	-	7	2 x doors	Intact	Presumed friable	Requires confirmation sampling
Fire door insulation core Level 1, SW corner, sliding doors to hoist No1	Presumed to contain asbestos	-	-	1 x doors	Intact	Presumed friable	Requires confirmation sampling
Hoist lift mechanism and shaft	Unknown	-	-	Unknown	Unknown	Unknown	Requires additional investigation as hoist/lift mechanisms and shafts typically utilise asbestos materials
Fire door insulation core Levels G & 1, central fire stairs, fire doors tagged 'Masterbuilt'	Presumed to contain asbestos	-	-	2 x doors	Intact	Presumed friable	Requires confirmation sampling
Fire door insulation core Levels G & 1, fire doors to exhaust fan rooms & flammable liquid stores throughout building	Presumed to contain asbestos	-	-	8 x doors	Unknown	Unknown	Requires additional investigation
Linoleum sheet Level G, floor covering to medical room adjacent to Men's locker room	Presumed to contain asbestos	-	-	25m^2	Generally intact, minor damage	Unknown	Requires confirmation sampling
Vinyl floor tiles Level G, floor covering to store room adjacent to Women's toilet	Presumed to contain asbestos	-	-	20m^2	Generally intact, minor damage	Bonded	Requires confirmation sampling

5.2 Building 2

Material Type and Location	Material Status	Sample/Test No	Photo No	Approx. Extent	Condition	Bonded/ Friable	Recommendations for Additional Inspections
Lead Containing Materials							
No significantly deteriorated paint systems were identified that would require remedial works or add significant variation to demolition works. In consideration of the age of the building, accumulated dust within shafts, voids, ceiling, roof and wall cavities throughout the building are considered likely to contain potentially hazardous levels of lead. Consideration should be given to the removal of the dust or dust suppression techniques during the refurbishment / demolition of the building.							
Polychlorinated Biphenyls (PCBs) Containing Electrical Equipment							
The majority of older light fittings throughout the building are considered to house PCB containing capacitors. No visual evidence of PCB oil leakage was noted from any light fittings. Electrical capacitors are readily removed prior to demolition, placed in plastic lined drums and disposed of as PCB Scheduled Waste. These works require minimal variation to refurbishment / demolition works.							
Synthetic Mineral Fibre Containing Materials							
SMF material were identified in the form of insulation to reticulated pipe work, insulation to air conditioning ducting and insulation within walls and ceiling cavities. These materials were in a stable condition during the time of the inspection and do not require remedial works. Consideration should be given to the correct handling of SMF materials and fibre suppression techniques during the refurbishment / demolition of the building.							

5.3 Building 3

Material Type and Location	Material Status	Sample/Test No	Photo No	Approx. Extent	Condition	Bonded/ Friable	Recommendations for Additional Inspections
Asbestos Fibre Containing Materials							
Corrugated fibre cement sheeting (painted) Roof to south section of building & NW gable infill panels	Presumed to contain asbestos	-	8	1,500m²	Generally intact, minor damage	Bonded	Requires confirmation sampling
Bituminous membrane Lower roof top area, NE corner adjacent to plant room entry	Presumed to contain asbestos	-	-	30m²	Generally intact, minor damage	Bonded	Requires confirmation sampling
Vinyl floor tiles Flammable liquid store, SE corner, floor covering	Presumed to contain asbestos	-	-	20m²	Generally intact, minor damage	Bonded	Requires confirmation sampling
Vinyl floor tiles Office/crib room, central area, floor covering	Presumed to contain asbestos	-	-	50m²	Generally intact, minor damage	Bonded	Requires confirmation sampling
Vinyl floor tiles Interior west wall, south of sub-station alcove, remnant floor covering	Presumed to contain asbestos	-	-	25m²	Generally intact, minor damage	Bonded	Requires confirmation sampling
Perforated flat fibre cement sheet Ceiling lining	Presumed to contain asbestos	-	-	1,800m²	Generally intact, minor damage	Bonded	Requires confirmation sampling
Fire door insulation core North end, sliding door to central corridor	Presumed to contain asbestos	-	-	1 x doors	Intact	Presumed friable	Requires confirmation sampling
Fire door insulation core North end-east wall, sliding doors	Presumed to contain asbestos	-	-	2 x doors	Intact	Presumed friable	Requires confirmation sampling

5.3 Building 3

Material Type and Location	Material Status	Sample/Test No	Photo No	Approx. Extent	Condition	Bonded/ Friable	Recommendations for Additional Inspections
Fibre cement pipes North end, bank of electrical distribution cabinets, sub-surface cable pit leading to sub-station	Presumed to contain asbestos	-	9	20Lm	Unknown	Unknown	Requires confirmation sampling and additional investigation as pipe work penetrates the ground and continues west to the sub-station
Electrical backing boards, cable sheaths and conduits, etc Electrical sub-station, shed interior	Presumed to house asbestos containing materials	-	-	Unknown	Unknown	Unknown	Requires confirmation sampling and additional investigation. Requires liaison with Energy Australia for access. Requires strict safety precautions for sampling and escort from Energy Australia
Lead Containing Materials							
No significantly deteriorated paint systems were identified that would require remedial works or add significant variation to demolition works. In consideration of the age of the building, accumulated dust within shafts, voids, ceiling, roof and wall cavities throughout the building are considered likely to contain potentially hazardous levels of lead. Consideration should be given to the removal of the dust or dust suppression techniques during the refurbishment / demolition of the building.							

5.3 Building 3

Material Type and Location	Material Status	Sample/Test No	Photo No	Approx. Extent	Condition	Bonded/ Friable	Recommendations for Additional Inspections
Polychlorinated Biphenyls (PCBs) Containing Electrical Equipment							
Dielectric cooling oil Electrical sub-station, transformer units and cable insulation	Presumed to contain PCBs	-	-	3 x transformer units and numerous cables	Unknown appears to be leaking	NA	Requires confirmation sampling and additional investigation. Requires liaison with Energy Australia for access. Requires strict safety precautions for sampling and escort from Energy Australia
The majority of older light fittings throughout the building are considered to house PCB containing capacitors. No visual evidence of PCB oil leakage was noted from any light fittings. Electrical capacitors are readily removed prior to demolition, placed in plastic lined drums and disposed of as PCB Scheduled Waste. These works require minimal variation to refurbishment / demolition works.							
Synthetic Mineral Fibre Containing Materials							
SMF material were identified in the form of insulation to reticulated pipe work, insulation to air conditioning ducting and insulation within walls and ceiling cavities. These materials were in a stable condition during the time of the inspection and do not require remedial works. Consideration should be given to the correct handling of SMF materials and fibre suppression techniques during the refurbishment / demolition of the building.							

5.4 Building 4

Material Type and Location	Material Status	Sample/Test No	Photo No	Approx. Extent	Condition	Bonded/ Friable	Recommendations for Additional Inspections
Asbestos Fibre Containing Materials							
Fibre cement sheeting (painted) Cladding to entire sawtooth roof and east upper infill walls, box guttering	Presumed to contain asbestos	-	-	1,600m²	Generally intact, minor damage	Bonded	Requires confirmation sampling
Flat fibre cement sheet Ground level, Lining to underside of central stairs	Contains asbestos	Sampled by New Environment (Sample 2769/pg3)	-	10m²	Generally intact, minor damage	Bonded	NA
Insulation to pipe work Ground level, SE section of Dye House adjacent to lunchroom, calico wrapped pipe work	Presumed to contain asbestos	-	9	5Lm	Generally intact, minor damage	Friable	Requires confirmation sampling
Flat fibre cement sheet Ground level, Dye House, ceiling lining	Presumed to contain asbestos	-	-	150m²	Generally intact, minor damage	Bonded	Requires confirmation sampling
Compressed fibre cement sheet Ground level, SW section of Dye House, top to reducing chemical cupboard	Presumed to contain asbestos	-	-	2m²	Generally intact, minor damage	Bonded	Requires confirmation sampling

5.4 Building 4

Material Type and Location	Material Status	Sample/Test No	Photo No	Approx. Extent	Condition	Bonded/ Friable	Recommendations for Additional Inspections
Dye House Hoist lift mechanism and shaft	Unknown, may house asbestos containing materials	-	-	Unknown	Unknown	Unknown	Requires additional investigation as hoist/lift mechanisms and shafts typically utilise asbestos materials
Fire door insulation core Ground level, Dye House, east wall, sliding doors	Presumed to contain asbestos	-	-	2 x doors	Intact	Presumed friable	Requires confirmation sampling
Black coloured vinyl floor tiles Dye House lunchroom	Presumed to contain asbestos	-	-	40m^2	Intact	Bonded	Requires confirmation sampling
Insulation to pipe work Level 1, N section of hosiery finishing, east wall within vertical boxing, calico wrapped pipe work	Presumed to contain asbestos	-	10	8Lm	Intact	Friable	Requires confirmation sampling and additional investigation as pipe work is only visible through gaps in the boxing
Flat fibre cement sheet Level 1, N section of hosiery finishing, east wall within vertical boxing, formwork	Presumed to contain asbestos	-	10	Unknown	Generally intact	Bonded	Requires confirmation sampling and additional investigation
White coloured vinyl floor tiles Ground level, corridor to building east, floor covering	Presumed to contain asbestos	-	-	50m^2	Intact	Bonded	Requires confirmation sampling

5.4 Building 4

Material Type and Location	Material Status	Sample/Test No	Photo No	Approx. Extent	Condition	Bonded/ Friable	Recommendations for Additional Inspections
Lead Containing Materials							
No significantly deteriorated paint systems were identified that would require remedial works or add significant variation to demolition works. In consideration of the age of the building, accumulated dust within shafts, voids, ceiling, roof and wall cavities throughout the building are considered likely to contain potentially hazardous levels of lead. Consideration should be given to the removal of the dust or dust suppression techniques during the refurbishment / demolition of the building.							
Polychlorinated Biphenyls (PCBs) Containing Electrical Equipment							
The majority of older light fittings throughout the building are considered to house PCB containing capacitors. No visual evidence of PCB oil leakage was noted from any light fittings. Electrical capacitors are readily removed prior to demolition, placed in plastic lined drums and disposed of as PCB Scheduled Waste. These works require minimal variation to refurbishment / demolition works.							
Synthetic Mineral Fibre Containing Materials							
Loose, stored insulation material Level 1, north section of hosiery finishing	Presumed SMF	-	-	$3m^3$	Loose	Friable	Requires confirmation sampling Should be tested at the earliest practicable time with the precaution of containing asbestos
SMF material were identified in the form of insulation to reticulated pipe work, insulation to air conditioning ducting and insulation within walls and ceiling cavities. These materials were in a stable condition during the time of the inspection and do not require remedial works. Consideration should be given to the correct handling of SMF materials and fibre suppression techniques during the refurbishment / demolition of the building.							

5.5 Building 5

Building 5 was the former Boiler House that was in the process of being demolished during the time of the inspection. All hazardous building materials were removed as part of the demolition works. For the removal of asbestos materials please refer to EIS clearance inspection report reference: E22459Kclr1, dated 14 October 2008.

5.6 Building 6

Material Type and Location	Material Status	Sample/Test No	Photo No	Approx. Extent	Condition	Bonded/ Friable	Recommendations for Additional Inspections
Asbestos Fibre Containing Materials							
Flat fibre cement sheet Strips around south wall windows, building interior	Contains asbestos	Sampled by New Environment (Sample 2769/pg10)	-	$2m^2$	Generally intact, minor damage	Bonded	NA
Lead Containing Materials							
No significantly deteriorated paint systems were identified that would require remedial works or add significant variation to demolition works. In consideration of the age of the building, accumulated dust within shafts, voids, ceiling, roof and wall cavities throughout the building are considered likely to contain potentially hazardous levels of lead. Consideration should be given to the removal of the dust or dust suppression techniques during the refurbishment / demolition of the building.							

5.6 Building 6

Material Type and Location	Material Status	Sample/Test No	Photo No	Approx. Extent	Condition	Bonded/ Friable	Recommendations for Additional Inspections
Polychlorinated Biphenyls (PCBs) Containing Electrical Equipment							
The majority of older light fittings throughout the building are considered to house PCB containing capacitors. No visual evidence of PCB oil leakage was noted from any light fittings. Electrical capacitors are readily removed prior to demolition, placed in plastic lined drums and disposed of as PCB Scheduled Waste. These works require minimal variation to refurbishment / demolition works.							
Synthetic Mineral Fibre Containing Materials							
SMF materials were identified in the form of insulation to reticulated pipe work and within the ceiling cavities. These materials were in a stable condition during the time of the inspection and do not require remedial works. Consideration should be given to the correct handling of SMF materials and fibre suppression techniques during the refurbishment / demolition of the building.							

5.7 Building 7

Material Type and Location	Material Status	Sample/Test No	Photo No	Approx. Extent	Condition	Bonded/ Friable	Recommendations for Additional Inspections
Asbestos Fibre Containing Materials							
None identified							
Lead Containing Materials							
No significantly deteriorated paint systems were identified that would require remedial works or add significant variation to demolition works. In consideration of the age of the building, accumulated dust within shafts, voids, ceiling, roof and wall cavities throughout the building are considered likely to contain potentially hazardous levels of lead. Consideration should be given to the removal of the dust or dust suppression techniques during the refurbishment / demolition of the building.							
Polychlorinated Biphenyls (PCBs) Containing Electrical Equipment							
None identified							
Synthetic Mineral Fibre Containing Materials							
SMF materials were identified in the form of insulation to reticulated pipe work and within the ceiling cavities. These materials were in a stable condition during the time of the inspection and do not require remedial works. Consideration should be given to the correct handling of SMF materials and fibre suppression techniques during the refurbishment / demolition of the building.							

5.8 Building 8

Material Type and Location	Material Status	Sample/Test No	Photo No	Approx. Extent	Condition	Bonded/ Friable	Recommendations for Additional Inspections
Asbestos Fibre Containing Materials							
Fibre cement sheeting Cladding to entire sawtooth roof, upper walls and box guttering	Presumed to contain asbestos	-	-	250m^2	Damaged and degraded	Bonded	Requires confirmation sampling
Insulation to pipe work, above internal offices, west wall, N-S oriented metal sheathed pipe work	Presumed to contain asbestos	-	11	15Lm	Generally intact, minor damage	Friable	Requires confirmation sampling
Insulation to pipe work, above internal offices, west wall, N-S oriented calico wrapped pipe work	Presumed to contain asbestos	-	12	Unknown, presumed approximately 20Lm	Generally intact, minor damage	Friable	Requires confirmation sampling and additional investigation as the pipe work penetrates the NE corner of Building 4 & continues south into the ceiling cavity
Vinyl floor tiles Internal office on west side of building	Presumed to contain asbestos	-	-	25m^2	Generally intact, minor damage	Bonded	Requires confirmation sampling
Linoleum floor sheet Internal offices on west side of building	Presumed to contain asbestos	-	-	100m^2	Generally intact, minor damage	Unknown	Requires confirmation sampling
Lead Containing Materials							
No significantly deteriorated paint systems were identified that would require remedial works or add significant variation to demolition works. In consideration of the age of the building, accumulated dust within shafts, voids, ceiling, roof and wall cavities throughout the building are considered likely to contain potentially hazardous levels of lead. Consideration should be given to the removal of the dust or dust suppression techniques during the refurbishment / demolition of the building.							

5.8 Building 8

Material Type and Location	Material Status	Sample/Test No	Photo No	Approx. Extent	Condition	Bonded/ Friable	Recommendations for Additional Inspections
Polychlorinated Biphenyls (PCBs) Containing Electrical Equipment							
The majority of older light fittings throughout the building are considered to house PCB containing capacitors. No visual evidence of PCB oil leakage was noted from any light fittings. Electrical capacitors are readily removed prior to demolition							
Synthetic Mineral Fibre Containing Materials							
SMF materials were identified in the form of insulation to reticulated pipe work and within the ceiling cavities. These materials were in a stable condition during the time of the inspection and do not require remedial works. Consideration should be given to the correct handling of SMF materials and fibre suppression techniques during the refurbishment / demolition of the building.							

5.9 Summary of Asbestos Containing Materials

Material Type	Potential Likely Extent	Recommendations for Additional Inspections
Friable asbestos insulated pipe lagging	200Lm	Requires extensive additional investigation and confirmation sampling
Bonded asbestos containing materials including fibre cement (fibro) corrugated roof sheeting, walls, ceiling linings and electrical backing boards	5,200m^2	Requires extensive confirmation sampling
Floor coverings including vinyl floor tiles and linoleum sheet	420m^2	Requires extensive confirmation sampling
Friable insulation core to fire doors, may contain asbestos	22	Requires extensive confirmation sampling
Hoists and motor rooms, may house asbestos containing materials	3 hoists	Requires extensive additional investigation and confirmation sampling if required

6 CONCLUSIONS

The objective of the investigation was to prepare a preliminary report for the purposes of assessing the condition and extent of hazardous building materials including asbestos fibres, lead paint, lead in accumulated dust, Synthetic Mineral Fibre (SMF) and polychlorinated biphenyls (PCBs).

Asbestos Fibre Containing Materials
Asbestos containing materials or materials suspected to contain asbestos are extensive throughout the building. The likely extent of the asbestos containing materials would be expected to include significant variation to any future refurbishment or demolition works. The following works should be undertaken at the site:

- Additional targeted sampling to establish the actual extent of asbestos materials not previously sampled;
- Additional detailed site investigations to assess the extent and condition of asbestos materials hidden in relatively inaccessible places. These materials include insulation to pipe work and areas such as lift motor rooms, lift shafts and the electrical sub-station;
- Preparation of a detailed Hazardous Materials Register;
- Preparation of a Technical Scope of Works for Removal report; and
- Removal of all hazardous materials from the site prior to refurbishment / demolition works, to be undertaken by an AS-1 licensed contractor.

The *NSW Occupational Health and Safety Regulation 2001*, the National Occupational Health & Safety Commission (NOHSC) Asbestos: *Code of Practice for the Safe Removal of Asbestos 2nd Edition* [NOHSC:2002(2005)], the *Code of Practice for Management and Control of Asbestos in Workplaces* [NOHSC:2018(2005)] and the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition* [NOHSC: 3003(2005)] set out requirements for asbestos registers, information sharing, procedures for asbestos materials and substances management and control, asbestos removal and disposal, air monitoring and supervision. These documents set the industry standard for asbestos management, control and safe removal methods for asbestos materials.

Lead Containing Materials
No significantly deteriorated paint systems were identified throughout the entire building complex. It is considered that demolition works could proceed under normal conditions without variation for deteriorated lead paint systems.

In consideration of the age of the building complex, accumulated dust within shafts, voids, ceiling, roof and wall cavities throughout the entire building complex are considered likely to contain potentially hazardous levels of lead. Consideration should be given to the removal of the dust or dust suppression techniques during the refurbishment / demolition of the building complex. The removal or suppression of accumulated dust may require additional time over normal demolition practices. The exact remedial techniques should be discussed between interested parties.

Procedures and precautions detailed in Australian Standards (AS 4361 *1998,* Parts 1 and 2) and National Occupational Health and Safety Commission documents: [NOHSC: 1012 (1994)] and [NOHSC: 2015 (1994)] should be followed in the identification, treatment and management of materials containing lead including paint and dust.

Polychlorinated Biphenyls (PCBs) Containing Electrical Equipment
The majority of older light fittings throughout the building are considered to house PCB containing capacitors. Additional investigation of the light fittings is not considered necessary. Electrical capacitors are readily removed during demolition. Provided demolishers are trained to identify and handle capacitors appropriately, the removal of capacitors could be undertaken during the demolition works (with some additional personnel time).

The electrical substation requires extensive additional investigation and sampling. This requires liaison with Energy Australia for access and the implementation of strict safety precautions.

PCBs are covered by a Chemical Control Order under the *Environmentally Hazardous Chemicals Act 1985.* PCB work is to be conducted in accordance with the *Environmental Protection & Heritage Council's Polychlorinated Biphenyls Management Plan, Revised Edition April 2003.*

Synthetic Mineral Fibre Containing Materials
SMF materials were identified throughout the building complex in the form of reticulated pipe work, insulation to air conditioning ducting and insulation within walls and ceiling cavities. At the time of the inspection these materials were in a stable condition and did not require remedial works. SMF materials are usually removed by the demolishers, however consideration should be given to the correct handling of SMF materials and fibre suppression techniques during refurbishment / demolition works. The removal of SMF materials may require additional time above normal demolition practices.

The handling or removal of any SMF containing materials should be conducted in accordance with the requirements of the National Occupational Health and Safety Commission [NOHSC:1004(1990)], [NOHSC:3006(1989)], and National Code of Practice [NOHSC:2006(1990)].

7 LIMITATIONS

The conclusions developed in this report are based on site conditions which existed at the time of the site assessment. They are based on investigation of conditions at specific locations, chosen to be as representative as possible under the given circumstances, and visual observations of the site and vicinity, together with the interpretation of available documents reviewed as described in this report.

Surveys are conducted in a conscientious and professional manner. The nature of the task however, and the likely disproportion between any damage or loss which might arise from the work or reports prepared as a result, and the cost of our services, is such that EIS cannot guarantee that all hazardous building materials have been identified and/or addressed.

Due to the possibility of renovations and additions to the building structures over time, hazardous building materials may have been hidden behind new walls and ceilings. Such areas were inaccessible during the inspection. If any suspect materials are found during further renovation of the buildings, the material should be sent for identification and expert advice sought.

Therefore while we carry out the work to the best of our ability, we totally exclude any loss or damages which may arise from services we have provided to KGS and/or any other associated parties.

Unless specifically noted, the survey did not cover:

- Hidden and/or inaccessible locations such as in or under concrete slabs, wall cavities, hidden storage areas and the like.
- Ceiling and roof cavities unless hazardous materials were identified in the previous New Environment report.
- Sub-floor areas unless hazardous materials were identified in the previous New Environment report.
- Lift wells and inaccessible/unidentified shafts, cavities and the like.
- Air conditioning, heating, mechanical, electrical or other equipment.
- General exterior ground surfaces and subsurface areas eg asbestos in fill/soil.
- Materials dumped, hidden, or otherwise placed in locations which one could not reasonably anticipate.
- Materials other than normal building fabric, materials in laboratories or special purpose facilities and building materials that cannot be reasonably and safely assessed without assistance.
- Areas where access was limited during the time of the site inspection

Materials other than asbestos, lead, PCBs and SMF are generally outside the scope as identification can require specialised analysis/inspection techniques.

No sampling of hazardous materials was undertaken as part of the site inspection.

Where potentially hazardous materials are identified these are normally reported on to the best of the consultant's ability. Analysis is not normally included and there is no guarantee that all such materials have been identified and/or addressed.

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Should you require any further information regarding the above, please do not hesitate to contact us.

Yours faithfully
For and on behalf of
ENVIRONMENTAL INVESTIGATION SERVICES

Cameron Hollands
Environmental Scientist

AJ Kingswell
Senior Associate

Recreated from UBD
UBD Reference: Page 254, Square M3

SITE LOCATION PLAN

22 George Street, Leichhardt

EIS
ENVIRONMENTAL
INVESTIGATION
SERVICES

Job No: E22459K
Figure: 1

Note: Reference should be made to the text for a full understanding of this plan

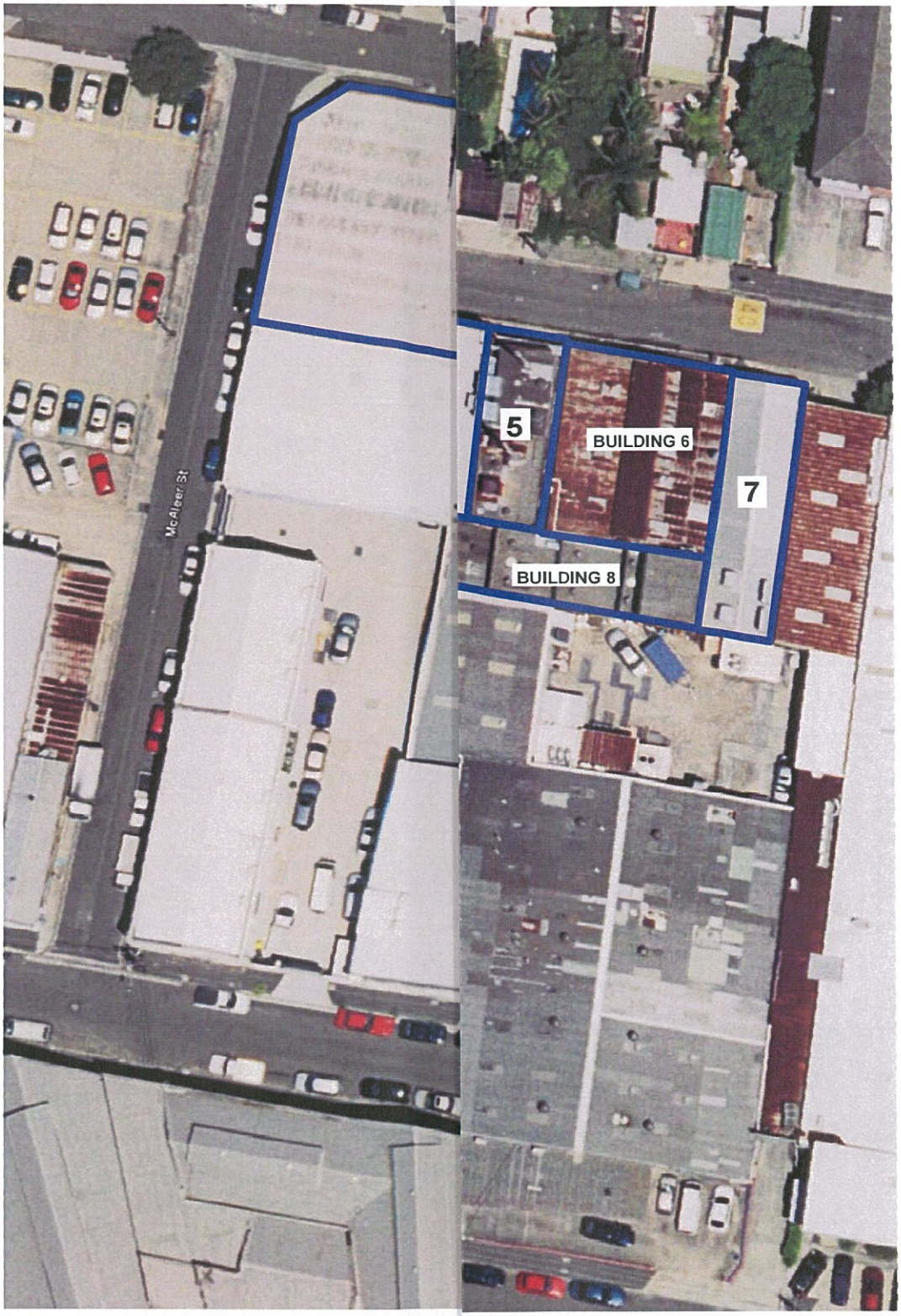

Image reproduced from Google Earth Pro

Note: Reference should be made to the text for a full understanding of this plan

E LAYOUT PLAN

3 George St, Leichhardt

Job No: E22459k
Figure: 2

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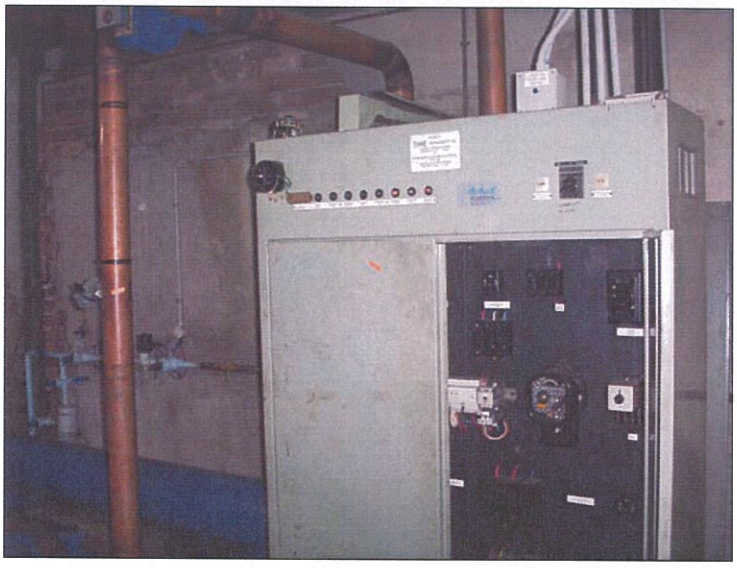
APPENDIX A

BUILDING 1

Photograph 1

View of pipe work within the plant room located on level 1, Building 1.

The pipe work insulation is presumed to contain asbestos.



Photograph 2

View of the air conditioning electrical distribution cabinet located in the plant room level 1, Building 1.

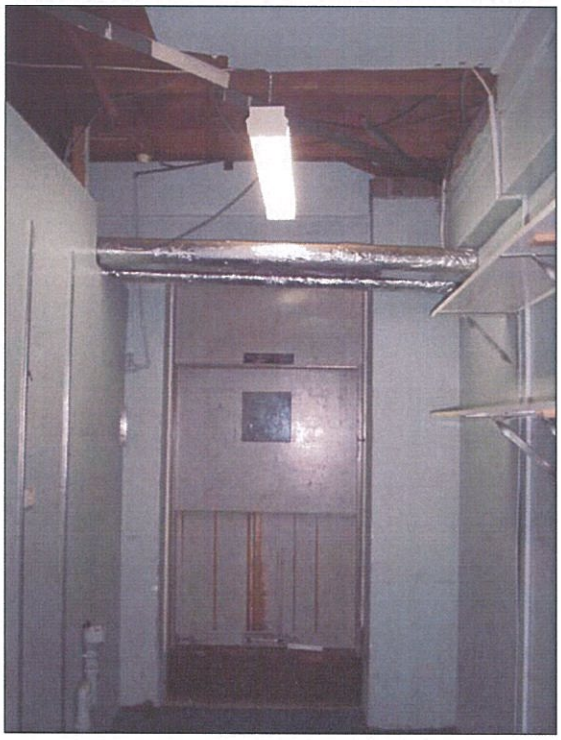
The black backing board is presumed to contain asbestos.

BUILDING 1

Photograph 3

View within the ceiling cavity of the offices, Building 1, level 1 showing a section of the reticulated pipe work.

The pipe work insulation is presumed to contain asbestos.

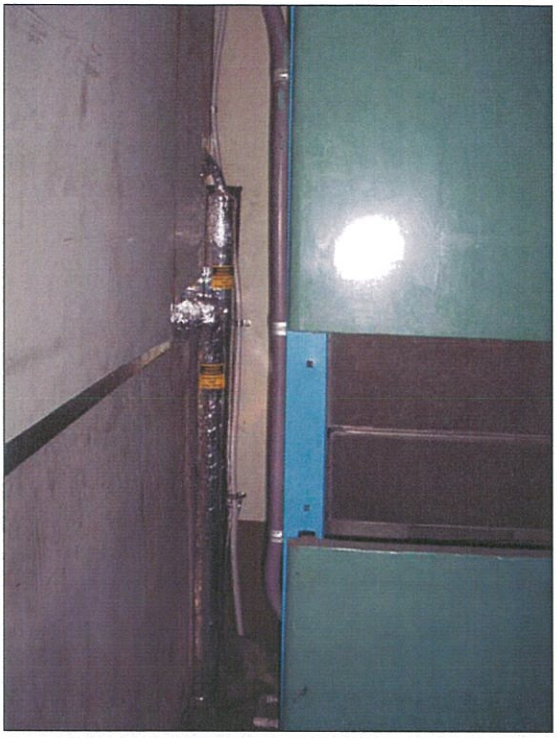


Photograph 4

View of the north-west corner of level 1, Building 1 adjacent to the hoist.

The foil covered pipes are presumed to contain asbestos.

BUILDING 1



Photograph 5

View of the south-east corner of level 2, Building 1 showing the foil covered pipe work behind an air conditioning duct.

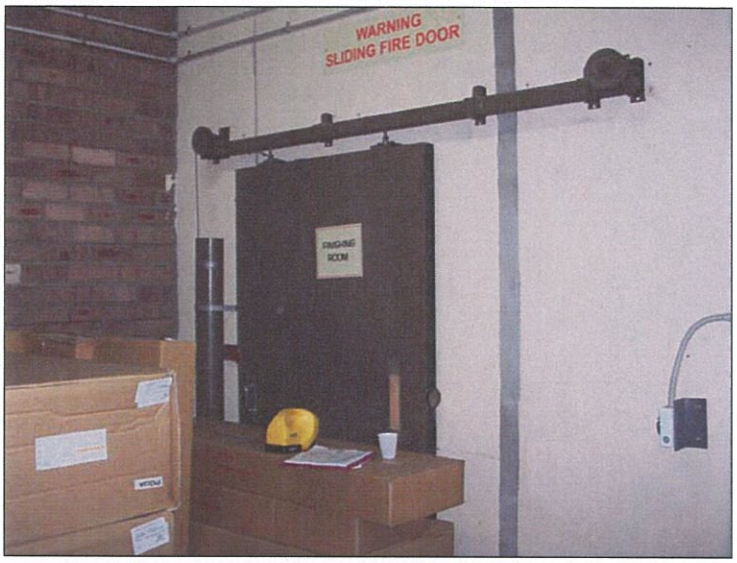
The foil covered pipes are presumed to contain asbestos.

Photograph 6

View of the hot water system within the store room situated at the south-east corner of level 2, Building 1.

The pipe behind the water tank is insulated with asbestos lagging.

BUILDING 2



Photograph 7

View of the sliding fire door to the Finishing Room located at the west side of the Level 1, Building 2.

The fire door is presumed to have an asbestos containing insulation core.

BUILDING 3

Photograph 8

View of the roof and north-west gable infill panels of Building 3.

The roof and gable infill panels are presumed to contain asbestos.

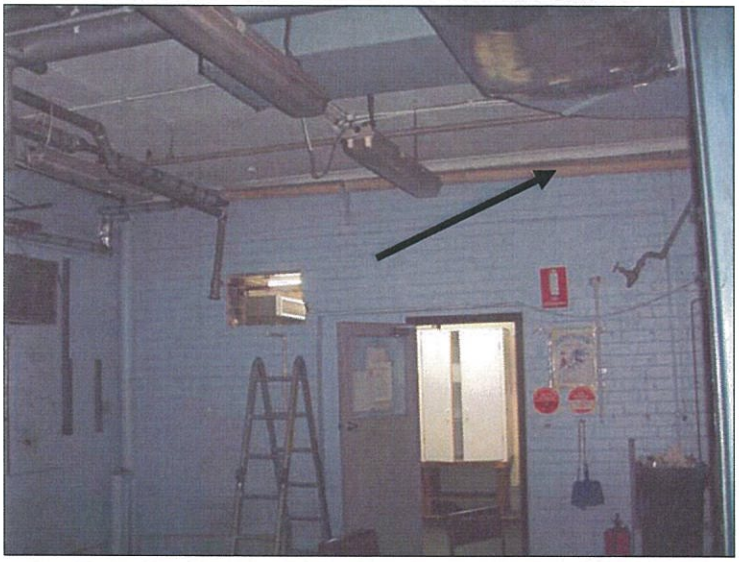
BUILDING 3

Photograph 9

View of the cable pits situated behind the bank of electrical distribution cabinets, located at the north west end of Building 1.

The arrow indicates the fibre cement pipes that house the main electrical cables. The pipes are presumed to contain asbestos.

BUILDING 4

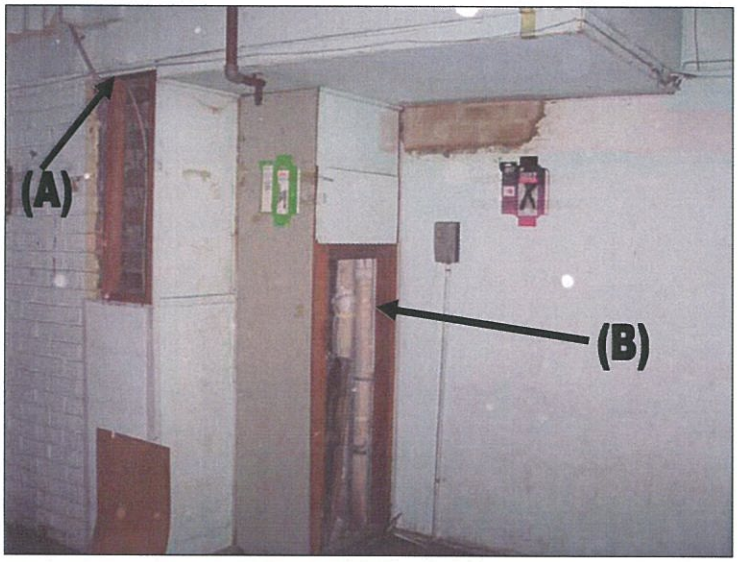


Photograph 9

View of the south-east section of the Dye House looking at the entry to the lunchroom.

The pipe work indicated by the arrow is presumably insulated in asbestos containing lagging.

BUILDING 4



Photograph 10

View of the east wall at the north section of level 1, Building 4.

Arrow A indicates the location of flat fibre cement sheet used as formwork. The fibre cement sheet is presumed to contain asbestos.

Arrow B indicates pipe work housed within the vertical boxing. The pipe work is presumed to be insulated in asbestos lagging.

BUILDING 8

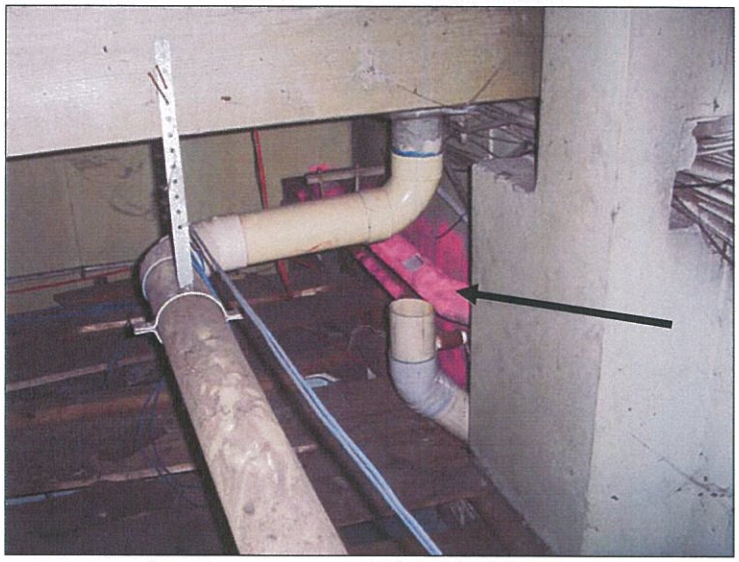
Photograph 11

View looking south and up over the internal offices of the Central Corridor.

The arrow indicates the location of the section of pipe work that is presumed to contain asbestos lagging.

The adjacent pipe work is insulated with SMF.

BUILDING 8



Photograph 12

View on the roof of the internal offices looking at the calico wrapped insulted pipe work presumed to contain asbestos. The pipe continues south within the ceiling cavity towards Building 4.