

Friday, 27 January 2017

DL3991_S006108

Attention: Mr. Matthew Bressa
LegPro 54 Pty Ltd
c/o Group Development Services Pty Ltd
3a 265-271 Pennant Hills Road
Thornleigh NSW 2120

By email: matthew@gdsland.com.au

Dear Sir,

Re: Review of RAP and Remediation Requirements – 117 O’Connell Street, Caddens, NSW 2747

DLA Environmental Services (DLA) was requested by Mr Matthew Bressa on behalf of LegPro 54 Pty Ltd to provide a review and update on remediation requirements for the Site located at:

117 O’Connell Street, Caddens, NSW 2747 (the Site).

A previous environmental investigation *Detailed Contamination Assessment & Remedial Action Plan* (Ref. Number 12486/2-AA) was completed in October 2011 by Geotechnique Pty Ltd. At the time of this investigation the soils beneath the residential building and swimming pool were inaccessible. The report recommended that additional investigations should be undertaken for soils beneath the inaccessible areas once demolition works have been completed.

In total seven areas of potential concern were identified in the original report. All areas have since been made accessible and assessed by Geotechnique with no additional areas of concern identified.

The Geotechnique report identified several existing Site structures that were constructed of materials that were suspected of containing asbestos. These asbestos structures have since been removed by a Class A Licenced Asbestos removalists and subsequently an *Asbestos Clearance Certificate* (Ref Number DL3991_S005614) has been issued by DLA on the 28th of October 2016. Refer to **Attachment 1** for clearance and disposal documentation of site structures.

Sydney

DLA Environmental Services
Unit 3/38 Leighton Place
Hornsby NSW 2077

Melbourne

Brisbane

42B Church St
Maitland NSW 2320

Adelaide

Newcastle

Perth

(ASX: PEH) ABN: 80 601 661 634
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Remediation of Areas 1-4 identified within the original Geotechnique investigation report have been validated by Geotechnique, with results contained within the report- *Remediation & Validation of Areas 1 to 4* (Ref. Number 12486/4-AA), completed on the 25th Of January 2017. The report states that the soil generated from remediation of Areas 1 to 4 has been made suitable to be retained onsite. A subsequent *Asbestos Clearance Certificate* (DL3991_S006099) Issued by DLA on the 25th of January 2017 was also completed for Areas 1-4. Refer to **Attachment 2** for Validation documentation of Areas 1-4.

Areas 6 and 7 were identified as potentially containing asbestos within the Geotechnique report requiring further investigation and delineation when Site access permits. Building structures and hardstand materials have since been removed from the surface of the area. Licenced Asbestos Assessors from DLA have subsequently conducted visual and soil sampling of the areas. An *Asbestos Assessment Report* (Ref Number DL3991_S005747) dated the 15th of November 2016 delineates the extent of asbestos within the area as well as nominating an asbestos remediation and clearance strategy for this area. Refer to **Attachment 3** - Asbestos Assessment for Areas 6 and 7.

Area 5 was identified as containing mixed heavy metal and asbestos contamination within the original Geotechnique report. DLA have investigated the fill within the area noting the broad variety of fill materials used within the area. The Geotechnique report recommended Excavation, Segregation, Stockpiling and Retesting of Segregated soils. DLA concurs with this strategy, nominating a sorting area be established and nominal sampling strategy of asbestos quantification conducted per 80m³ stockpile and heavy metal assessments every 200m³.

All materials generated from onsite remediation works will be assessed against the land use requirements as defined in NEPM (NEPC, 2013) as *Residential A – Residential with garden/accessible soil*. The nominated fill placement location for these recovered materials will primarily be within roadways and footpaths on the Site due to the less sensitive nature of these locations. Any increase in projected volumes of remediated soils could be beneficially reused within residential lots at a depth greater than 2.5 meters as this would be below the likely area for future interaction.

The beneficial reuse of these materials onsite will reduce the off-site disposal requirements of the site as well as reduce the volume of material imported into the Site to complete the development. The use of these materials at depth will mitigate any future aesthetic concerns as well as extend the material beyond the ecological interaction level. Only materials that meet *Residential A* land use criteria will be beneficially reused, with continuous soil quality improvements made during material handling to ensure this criteria is maintained.

Any materials that are identified not to comply with the residential A Guidelines will be classified in accordance with the NSW Waste Classification Guidelines and disposed of at a Licenced Landfill facility.

Upon completion of remediation works a Site Wide Asbestos Clearance Certificate should be issued by a NSW WorkCover licensed asbestos assessor in accordance with requirements of Clauses 473 and 474 of the Work, Health and Safety Regulation 2011 (NSW). A Validation report will also be required to be completed and issued to the council confirming the Site meets the Residential A land use requirements for both chemical and asbestos concentrations.

During all works where asbestos contamination is suspected correct PPE should be worn, a decontamination area should be in place along with air monitoring undertaken in accordance with procedures used are outlined in Section 3.10 "Clearance Inspection" and Section 3.11 "Air Monitoring" in the How to Safely Remove Asbestos Code of Practice (SafeWork Australia, 2011).

If you have any further questions, please do not hesitate to contact the office.

Yours faithfully,

DLA Environmental Services



Russell Jarman

Environmental Consultant

Licensed Asbestos Assessor LAA001215

ATTACHMENT 1 – CLEARANCE AND DISPOSAL DOCUMENTATION OF SITE STRUCTURES

Friday, 28 October 2016

DL3991_S005614

Attention: Mr. Scott Hartog
JK Williams Group
44 Jack Williams Drive
Penrith NSW 2750

Dear Sir,

Re: Asbestos Clearance Certificate – 117 O’Connell Street, Caddens, NSW 2747

DLA Environmental Services (DLA) was requested by Mr Scott Hartog of J. K. Williams Pty Ltd to prepare a Visual Asbestos Clearance for the works undertaken at:

117 O’Connell Street, Caddens, NSW 2747 (the Site).

A visual inspection of the structures and fencing at the Site was conducted on Thursday 27th of October 2016 by a Licensed Asbestos Assessor. This inspection, which was of a visual nature only and was carried out in accordance with the Certification as required by Clause 473 and 474 of the NSW WHS Regulations 2011. The clearance involved a visual inspection of a small outdoor open timber garden hut and a smaller storage area constructed from concrete and timber. Following the removal of asbestos containing sheet materials in the structure was related to the roof only. Asbestos containing capping sheets were removed from the fence.

Refer to **Figure 1** –Asbestos Clearance and **Appendix A** – Photographic gallery.

Asbestos materials were removed by Pure Contracting Pty Ltd a Class A licensed asbestos removalist. A total of 3.02 tonnes of asbestos waste was disposed of on the 27th October 2016 at Suez Pty Ltd – Elizabeth Drive Waste Management Centre 1725 Elizabeth Drive, Kemps Creek NSW.

Refer **Appendix B** – Disposal Documentation.

Visual inspections have confirmed that the buildings and fencing have had all asbestos containing materials removed. It is therefore considered that these structures subject to this Clearance Certificate have been remediated in a safe and effective manner to allow for normal activities to proceed. These areas can now be accessed without risk to health or the environment generally.

If you have any further questions, please do not hesitate to contact the office.

Yours faithfully,
DLA Environmental Services



Shane Williams
Licensed Asbestos Assessor LAA 000128

FIGURE 1 – Asbestos Clearance



Legend:



Site Boundary

Title:

Asbestos Clearance

Client:

JK Williams Group

Job No:

DL 3991

Figure No:

1

Date:

28.10.16



Sydney
Unit 3 38 Leighton Place
Hornsby NSW 2077
Phone: 9476 1765 Fax: 9476 1557
Email: sydney@daenvironmental.com.au

Revision:

R0

APPENDIX A – PHOTOGRAPHIC GALLERY



Print 001

Fence Railing – ACM Sheets Removed



Print 002

Fence Railing – ACM Sheets Removed



Print 003

Garden Hut – External Roof



Print 004

Garden Hut – Internal Roof



Print 005

Garden Hut – Internal Roof Frame



Print 006

Garden Hut – Internal walls



Print 007

Concrete Shed with timber roof frame



Print 008

Concrete Shed with timber roof frame



Print 009

Dam Pump house – Timber and Sheet Metal construction



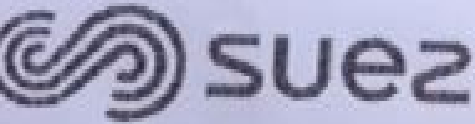
Print 010

Dam Pump House wooden roof frame

APPENDIX B –Disposal Dockets

27. 10. 16

Job No: PC.16153



Recycling & Recovery Pty Ltd
Delivery Docket

Elizabeth Drive Waste Management

Elizabeth Drive
Creek NSW 2178

1300 651 116
70 002 902 650

No: ED310314007.0
Date: 27/10/2016 4:01:53 PM
Time: 27/10/2016 4:25:27 PM
Rego: CI94GE

PURE CONTRACTING PTY LTD
0159

02 8016

External
Elizabeth Drive General Waste
6.38t
3.36t
3.02t

Net Weight: 3.02t
Tare Weight: 0.00t

(GST):

Price:

Payment Details

Account:

Tendered:

WOMCW

Site Address: O'Connell Street
Kingswood

RT / TIPPING DOCKET

WEIGHT

Gross

Tare

Concrete

VEHICLE

Bogie

Semi

Truck Dog

Other

ATTACHMENT 2 – VALIDATION DOCUMENTATION OF AREAS 1-4

Wednesday, 25th January 2017

DL3991_S006099

Asbestos Clearance Certificate

Requested by	Mr. Matthew Bressa Group Development Services Pty Ltd 3a 265-271 Pennant Hills Road Thornleigh NSW 2120
Inspection details	Asbestos Clearance Inspection – Remediation Areas 1-4
Site Address	117 O’Connell Street, Caddens, NSW 2747.
Removal Area(s)	Remediation Areas 1-4 as per Geotechnique RAP 12486/2-AA.

Remediation Work Details	
Date of removal works	No asbestos works were undertaken within Areas 1-4.
What type of asbestos remediation was undertaken?	No specific asbestos remediation works were undertaken within Areas 1-4.
Details of specific asbestos remediation work area(s)	No asbestos was visually identified within Areas 1-4 by Geotechnique.
Name of licensed asbestos Removalist	No asbestos removal works were undertaken within Areas 1-4.
Inspection details	
Type of clearance being issued	Asbestos Clearance Certification – Areas 1-4 footprint excavations and stockpiles are to be free of asbestos.
Date and time of clearance inspection(s)	19 th January 2017
Details of person undertaking clearance inspection	Mr Russell Jarman of DLA Environmental Services. Ph: 9476 1765 Licensed Asbestos Assessor, License No. LAA 001215
Details of inspection methodologies	Visual inspection of the excavation footprint and subsequent stockpile generated from areas 1-4 as well as a bulk soil sampling analysis from each footprint and stockpile (8 samples in total)

Sydney

Melbourne

Brisbane

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Newcastle

Perth

DLA Environmental Services
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Hornsby NSW 2077

42B Church St
Maitland NSW 2320

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Visual Inspection	YES	NO
Inspection of the specified asbestos works area found no visible asbestos to be present following asbestos removal works	✓	
Has an Asbestos Clearance report been issued?	✓	
Soil Sampling	YES	NO
Were soil samples collected by a Competent person or a qualified asbestos assessor?	✓	
Have the soil samples been analysed by a NATA accredited laboratory?	✓	
So the results of the soil sampling state No Asbestos Detected for all soils sampled?	✓	
Is the NATA accredited laboratory soil report attached to the Asbestos Clearance Report?	✓	
Are the areas suitable for access and occupation?	✓	

Geotechnique's Detailed Contamination Assessment and Remedial Action Plan Report No 12486/2-AA Dated the 10th of October 2011 identified Areas 1-4 in **Figure 1** as containing heavy metal exceedances. Upon excavation and assessment of these areas Geotechnique requested an asbestos clearance certificate is required to ensure the material was free of asbestos.

DLA undertook an asbestos clearance inspection in accordance with Safe Work Australia, Section 3.10 "Clearance Inspection" in the How to Safely Remove Asbestos Code of Practice (SWA 2016) to visually clear the site surface and excavated stockpiled materials within these areas. Representative bulk soil samples were also collected from the four footprint and subsequent stockpiled areas. Please see **Attachment 1** for the NATA certified analytical results of soil samples submitted.

The visual inspection and soil sampling did not identify asbestos within remediation areas 1-4 and therefore no risk to human health or the environment can be inferred from these areas. These area can now be accessed without risk to health or the environment generally.

Yours faithfully,

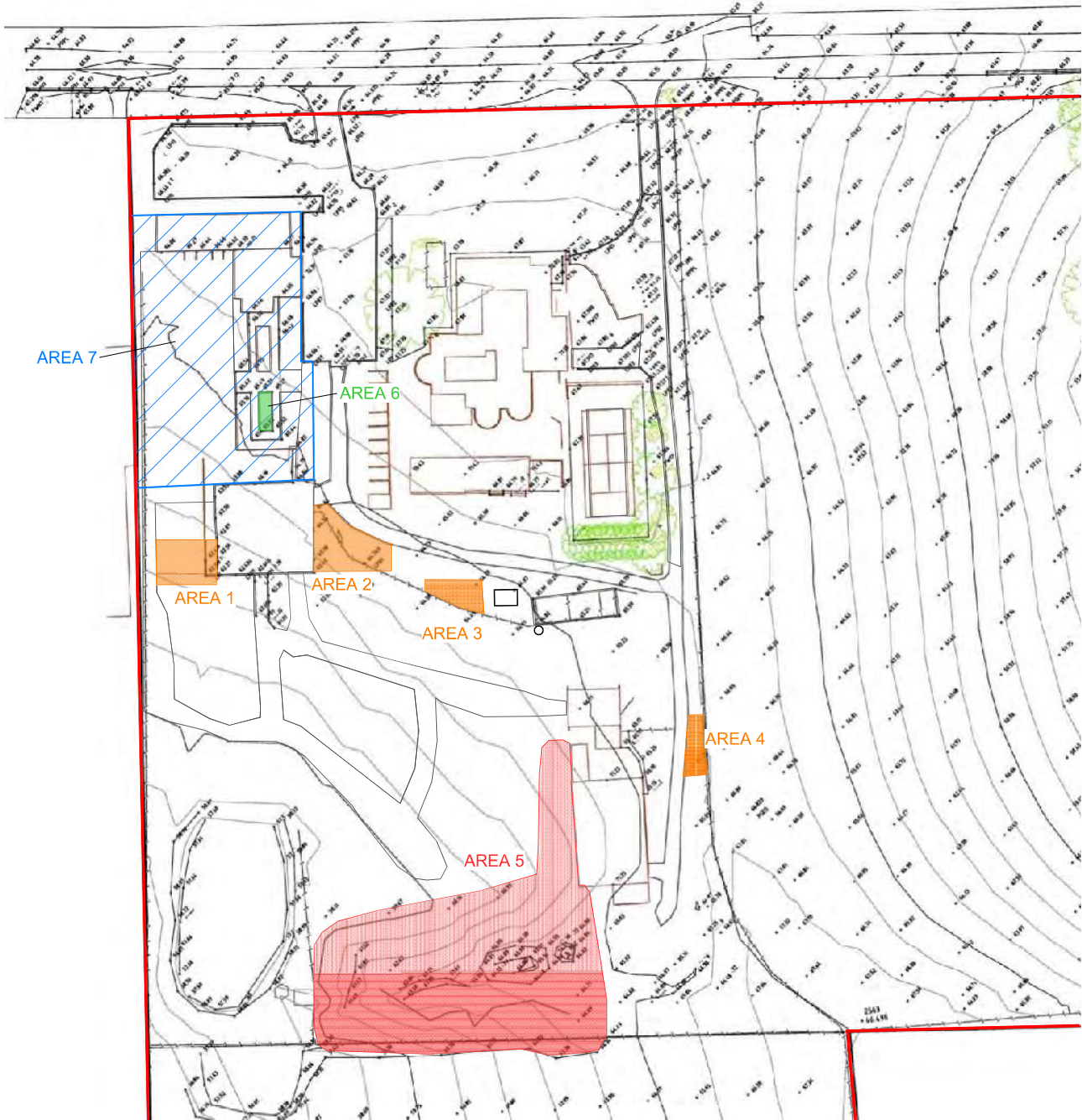
DLA Environmental Services



Russell Jarman
Environmental Consultant
Licensed Asbestos Assessor: LAA001215

FIGURE 1 – SITE REMEDIAITON AREAS 1-4

O'CONNELL STREET

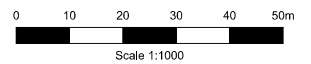


AREA	MATERIAL	ESTIMATED AREA (sq. m)	ESTIMATED DEPTH	ESTIMATED VOLUME (cu. m)	CONTAMINANT	REMEDIATION METHOD
1	Fill (Silty Gravel)	140	100mm	14	Zinc (Zn)	Stripping, Stockpiling and Reassessment
2	Fill (Gravelly Silt & Silty Gravel)	190	700mm	133	Nickel (Ni)	Stripping, Stockpiling and Reassessment
3	Fill (Gravelly Silt)	70	300mm	21	Ni	Stripping, Stockpiling and Reassessment
4	Topsoil (Silty Clay) & Fill (Gravelly Silt & Silty Sand)	60	200mm	12	Ni	Stripping, Stockpiling and Reassessment
5	Topsoil (Silty Clay) & Fill (Gravelly Sand, Sandy Silty Clay, Silty Clay, Gravelly Silt & Silty Gravel)	2500	ranging from 100mm to 2.8m	3800	Copper (Cu), Ni, Zn and bonded asbestos-cement pieces	Excavation, Segregation # & Stockpiling of segregated soil
6	Topsoil (Silty Clay)	25	100mm	2.5	Asbestos-cement pieces & fibre	Landfill Disposal as "Asbestos Waste"
7	-	2400	-	-	Bonded asbestos-cement pieces	Hand-pick and Landfill Disposal as "Asbestos Waste"

LEGEND

- Site Boundary
- Test Pit

Note: # scrap metals, bonded asbestos-cement pieces, brick and/or concrete



GEOTECHNIQUE
PTY LTD
CONSULTING ENGINEERS

PO Box 880
Penrith NSW 2750
Tel: 02 4722 2700
Fax: 02 4722 2777
e-mail: info@geotech.com.au
www.geotech.com.au

Livland Property Pty Ltd
Lots 11 & 12 in DP522660 and
Part Lot 101 in DP 564332
O'Connell Street, Kingswood

Drawing No: 12486/2-AA7
Job No: 12486/2
Drawn By: MH
Date: 6 October 2011
Checked By: DS/JX

Areas to be Remediated

File Ref: 12486-2-A3P
Layers: 0, AA7

ATTACHMENT 1 – NATA CERTIFIED ANALYTICAL DATA



Our ref: ASET54700 / 57880 / 1 - 8
Your ref: DL3991 - Caddens A1-A4 Asb Clearance
NATA Accreditation No: 14484



23 January 2017

DLA Environmental Services Pty Ltd
3/38 Leighton Place
Hornsby NSW 2077

Accredited for compliance with ISO/IEC 17025.

Attn: Mr Russell Jarman

Dear Russell

Asbestos Identification

This report presents the results of eight samples, forwarded by DLA Environmental Services Pty Ltd on 19 January 2017, for analysis for asbestos.

1.Introduction:Eight samples forwarded were examined and analysed for the presence of asbestos.

2. Methods: The samples were examined under a Stereo Microscope and selected fibres were analysed by Polarized Light Microscopy in conjunction with Dispersion Staining method (**Australian Standard AS 4964 - 2004 and Safer Environment Method 1 as the supplementary work instruction**) (**Qualitative Analysis only**).

3. Results: **Sample No. 1. ASET54700 / 57880 / 1. A1.**
Approx dimensions 9.0 cm x 9.0 cm x 5.4 cm
The sample consisted of a mixture of soil, stones, plant matter, fragments of plaster and cement.
No asbestos detected.

Sample No. 2. ASET54700 / 57880 / 2. A1 - SP.
Approx dimensions 10.0 cm x 10.0 cm x 5.0 cm
The sample consisted of a mixture of soil, stones, plant matter, fragments of plaster and cement.
No asbestos detected.

Sample No. 3. ASET54700 / 57880 / 3. A2.
Approx dimensions 10.0 cm x 10.0 cm x 5.4 cm
The sample consisted of a mixture of soil, stones, plant matter, fragments of plaster, cement and corroded metal.
No asbestos detected.

Sample No. 4. ASET54700 / 57880 / 4. A2 - SP.
Approx dimensions 11.0 cm x 11.0 cm x 4.6 cm
The sample consisted of a mixture of soil, stones, plant matter, fragments of plaster, cement and bitumen.
No asbestos detected.

Sample No. 5. ASET54700 / 57880 / 5. A3.
Approx dimensions 11.0 cm x 10.0 cm x 4.5 cm
The sample consisted of a mixture of soil, stones, plant matter, fragments of plaster and cement.
No asbestos detected.

SUITE 710 / 90 GEORGE STREET, HORNSBY NSW 2077 – P.O. BOX 1644 HORNSBY WESTFIELD NSW 1635
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Sample No. 6. ASET54700 / 57880 / 6. A3 - SP.

Approx dimensions 11.0 cm x 10.0 cm x 4.5 cm

The sample consisted of a mixture of soil, stones, plant matter and fragments of plaster.

No asbestos detected.

Sample No. 7. ASET54700 / 57880 / 7. A4.

Approx dimensions 10.5 cm x 10.5 cm x 4.5 cm

The sample consisted of a mixture of soil, stones, sandstones, plant matter and fragments of plaster.

No asbestos detected.

Sample No. 8. ASET54700 / 57880 / 8. A4 - SP.

Approx dimensions 10.0 cm x 10.0 cm x 5.0 cm

The sample consisted of a mixture of soil, stones, sandstones, plant matter and fragments of plaster.

No asbestos detected.

Analysed and reported by,

A handwritten signature in black ink, appearing to read "Nisansala Maddage". The signature is written in a cursive style with some loops and flourishes.

**Nisansala Maddage. BSc(Hons)
Environmental Scientist/Approved Identifier
Approved Signatory**



**WORLD RECOGNISED
ACCREDITATION**

Accredited for compliance with ISO/IEC 17025.

The results contained in this report relate only to the sample/s submitted for testing. Australian Safer Environment & Technology accepts no responsibility for whether or not the submitted sample/s is/are representative. Results indicating "No asbestos detected" indicates a reporting limit specified in AS4964 -2004 which is 0.1g/ Kg (0.01%). Any amounts detected at assumed lower level than that would be reported, however those assumed lower levels may be treated as "No asbestos detected" as specified and recommended by AS4964-2004. Trace / respirable level asbestos will be reported only when detected.

ATTACHMENT 3 – ASBESTOS ASSESSMENT FOR AREAS 6-7

Tuesday, 15 November 2016

DL3991_S005747

Attention: Mr. Scott Hartog
JK Williams Group
44 Jack Williams Drive
Penrith NSW 2750

By email:SHartog@jkw.com.au

Dear Sir,

Re: Asbestos Assessment– 117 O’Connell Street, Caddens, NSW 2747.

DLA Environmental Services (DLA) was requested by Mr Scott Hartog of J. K. Williams Pty Ltd to prepare an Asbestos Assessment for the Site located at:

117 O’Connell Street, Caddens, NSW 2747 (the Site).

A previous environmental investigation *Detailed Contamination Assessment & Remedial Action Plan* (Ref. Number 12486/2-AA) was completed in October 2011 by Geotechnique Pty Ltd. At the time of this investigation the soils beneath the residential building and swimming pool were inaccessible. The report recommended that prior to remediation commencing additional investigations should be undertaken for soils beneath Site features to identify any potential contamination.

Refer to **Figure 1** –Site Layout and Sample Locations and **Appendix A** – Photographic Gallery.

On the 9th November 2016, DLA collected a total of six surface soil samples from an area approximately 500m². The surface samples included soils, aggregate gravel and concrete debris following demolition works within the investigation area. Surface fibre cement fragments were identified visually across the entire area, with one sample of the bonded asbestos containing material (ACM) collected for laboratory identification.

Bulk soil sampling was employed for the purposes of this assessment to confirm the presence of asbestos fibres or asbestos fines in the soil. Bulk soil sampling involves the collection of multiple sub-samples from within a nominated area that are combined to form one bulk sample. The entire bulk sample is then analysed for positive or negative asbestos detection analysis.

This technique substantially increases the possibility of positively identifying asbestos, if present. The bulk sample must be kept below 500 grams to allow the NATA Laboratory to analyse the entire sample in accordance with Australian Standard *AS4964 – 2004 Method for the Qualitative Identification of Asbestos in Bulk Samples*. The bulk samples were placed directly into sealed plastic bags which were then placed within a larger sealed plastic bag to be delivered to the lab. Sample identification was included on each individual plastic bag.

The laboratory analysis of the ACM sample confirmed that the fibre cement material contained asbestos. Surface soil samples indicated the presence asbestos fibres within two of the bulk samples areas. A small ACM fragment was also present within a soil sample. Three of the sampled areas did not report asbestos in soils. Refer to **Table 1** below:

Table 1a – Summary of Results

SAMPLE	DATE	REPORT ID	RESULTS
S1	09.11.2016	ASET- 53685	No asbestos detected
S2	09.11.2016	ASET- 53685	No asbestos detected
S3	09.11.2016	ASET- 53685	Chrysotile asbestos fibres detected
S4	09.11.2016	ASET- 53685	Chrysotile asbestos ACM detected
S5	09.11.2016	ASET- 53685	Chrysotile asbestos fibres detected
S6	09.11.2016	ASET- 53685	No asbestos detected
ACM	09.11.2016	ASET- 53685	Chrysotile asbestos cement material

Refer to **APPENDIX B** – NATA Certified Analytical Results.

Asbestos Remediation and Clearance Strategy

A Class A licenced asbestos contractor is required for the contaminated materials to be removed and disposed of off-site. An alternative remediation strategy to allow materials to remain onsite may also be undertaken incorporating handpicking, further sampling and analysis to confirm compliance with Site criteria for asbestos.

The above options will be required to be conducted in accordance with the following points:

1. The asbestos impacted area should be cordoned off with a minimum 10m exclusion zone in effect with the only access by authorised personnel;
2. All asbestos removal works are to undertaken by a NSW WorkCover Class A licensed contractor;
3. The contractor should provide notification to SafeWork NSW prior to the removal works commencing;
4. All soils, gravels and debris within the investigated area should be removed, with asbestos fibre contaminated soil excavated to the depth of natural soils;
5. The soils may be subject to quantification testing for ACM, asbestos fines and fibrous asbestos to potentially allow the materials to remain onsite within a containment area at depth in an area unlikely to be accessed in the future.
6. Non-compliant asbestos impacted materials should be classified in accordance with the NSW EPA Waste Classification Guidelines (2014) for off-site disposal to a suitably licensed landfill
7. The base and walls of the remediation excavations should be sampled for absent/present analysis;
8. Upon completion of remediation works an Asbestos Clearance Certificate should be issued by a NSW WorkCover licensed asbestos assessor in accordance with requirements of Clauses 473 and 474 of the *Work, Health and Safety Regulation 2011 (NSW)*
9. During all works correct PPE should be worn, a decontamination area should be installed, air monitoring undertaken in accordance with procedures used are outlined in Section 3.10 "Clearance Inspection" and Section 3.11 "Air Monitoring" in the *How to Safely Remove Asbestos Code of Practice (SafeWork Australia, 2011)*.

If you have any further questions, please do not hesitate to contact the office.

Yours faithfully,

DLA Environmental Services



Shane Williams

Licensed Asbestos Assessor LAA 000128

FIGURE 1 – Site Layout and Sample Locations



Legend:



Site Boundary



Sample Location No Asbestos in soils.



Sample Location - Asbestos Fibres or ACM in soils.

Title:

Site Layout and Sample Locations

Client:

JK Williams Group

Job No:

DL 3991

Figure No:

1

Date:

14.11.16



DLA Environmental Services
A Pacific Environment company

Sydney

Unit 3 38 Leighton Place
Hornsby NSW 2077

Phone: 9476 1765

Fax: 9476 1557

Email: sydney@daenvironmental.com.au

Revision:

R0

APPENDIX A – PHOTOGRAPHIC GALLERY



Print 001

Surface ACM



Print 002

Asbestos surface impacted soils view to north.



Print 003

Sample S5 – Asbestos Fibres Detected



Print 004

Northern end of area viewing to south west.



Print 005

South-West part of investigation area.



Print 006

South-East part of investigation area.

APPENDIX B – ANALYTICAL RESULTS



AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD

ABN 36 088 095 112

Our ref: ASET53685 / 56865 / 1 - 8
Your ref: DL3991 – O’Connell Street Caddens
NATA Accreditation No: 14484

11 November 2016

DLA Environmental Services Pty Ltd
3/38 Leighton Place
Hornsby NSW 2077



Accredited for compliance with ISO/IEC 17025.

Attn: Mr Shane Williams

Dear Shane

Asbestos Identification

This report presents the results of eight samples, forwarded by DLA Environmental Services Pty Ltd on 9 November 2016, for analysis for asbestos.

1. Introduction: Eight samples forwarded were examined and analysed for the presence of asbestos.

2. Methods: The samples were examined under a Stereo Microscope and selected fibres were analysed by Polarized Light Microscopy in conjunction with Dispersion Staining method (**Australian Standard AS 4964 - 2004 and Safer Environment Method 1 as the supplementary work instruction**) (**Qualitative Analysis only**).

3. Results: **Sample No. 1. ASET53685 / 56865 / 1. S1.**
Approx dimensions 10.0 cm x 10.0 cm x 8.2 cm
The sample consisted of a mixture of clayish sandy soil, stones, plant matter, fragments of plaster, cement, brick and glass.
No asbestos detected.

Sample No. 2. ASET53685 / 56865 / 2. S2.
Approx dimensions 10.0 cm x 10.0 cm x 9.0 cm
The sample consisted of a mixture of clayish sandy soil, stones, sandstone, plant matter, fragments of plaster, cement, brick and glass.
No asbestos detected.

Sample No. 3. ASET53685 / 56865 / 3. S3.
Approx dimensions 11.0 cm x 10.0 cm x 9.5 cm
The sample consisted of a mixture of clayish sandy soil, stones, sandstone, plant matter, fibers[^], fragments of plaster, cement, brick and glass.
Chrysotile[^] (Estimated Approximate weight of fibre bundle = 0.007g) asbestos detected.

Sample No. 4. ASET53685 / 56865 / 4. S4.
Approx dimensions 10.0 cm x 10.0 cm x 8.5 cm
The sample consisted of a mixture of clayish sandy soil, stones, plant matter, fragments of plaster, fibre plaster cement* (2.2 cm x 1.6 cm x 0.4 cm), cement, paint flakes, brick and glass.
Chrysotile* asbestos detected.

Sample No. 5. ASET53685 / 56865 / 5. S5.
Approx dimensions 10.0 cm x 10.0 cm x 8.4 cm
The sample consisted of a mixture of clayish sandy soil, stones, plant matter, fibers[^], fragments of plaster, cement, brick and glass.
Chrysotile[^] (Estimated Approximate weight of fibre bundle = 0.008g) asbestos detected.

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Sample No. 6. ASET53685 / 56865 / 6. S6.

Approx dimensions 10.0 cm x 10.0 cm x 9.0 cm

The sample consisted of a mixture of clayish sandy soil, stones, sandstone, plant matter, fragments of plaster, cement and brick.

No asbestos detected.

Sample No. 7. ASET53685 / 56865 / 7. ACM

Approx dimensions 4.6 cm x 3.2 cm x 0.6 cm

The sample consisted of a fragment of a fibro plaster cement material containing organic fibres.

Chrysotile asbestos detected.

Sample No. 8. ASET53685 / 56865 / 8. Table Top.

Approx dimensions 2.2 cm x 0.8 cm x 0.3 cm

The sample consisted of a fragment of a fibre cement material.

Chrysotile asbestos detected.

Analysed and reported by,



Chamath Annakkage. BSc
Analyst / Approved Identifier



Mahen De Silva. BSc, MSc, Grad Dip (Occ Hyg)
Occupational Hygienist / Approved Signatory



Accredited for compliance with ISO/IEC 17025.

^ denotes loose fibres of relevant asbestos types detected in soil/dust

*** denotes asbestos detected in ACM in bonded form.**

denotes FA.

Disclaimers;

The approx; weights given above can be used only as a guide. They do not represent absolute weights of each kind of asbestos, as it is impossible to extract all loose fibres from soil and other asbestos containing building material samples using this method. However above figures may be used as closest approximations to the exact values in each case. Estimation and/ or reporting of asbestos fibre weights in asbestos containing materials and soil is out of the Scope of the NATA Accreditation. NATA Accreditation only covers the qualitative part of the results reported. This weight disclaimer also covers weight / weight percentages given.

The results contained in this report relate only to the sample/s submitted for testing. Australian Safer Environment & Technology accepts no responsibility for whether or not the submitted sample/s is/are representative. Results indicating "No asbestos detected" indicates a reporting limit specified in AS4964 -2004 which is 0.1g/ Kg (0.01%). Any amounts detected at assumed lower level than that would be reported, however those assumed lower levels may be treated as "No asbestos detected" as specified and recommended by AS4964-2004. Trace / respirable level asbestos will be reported only when detected.

Estimation of asbestos weights involves the use of following assumptions;

Volume of each kind of Asbestos present in broken edges have been visually estimated and its been assumed that volumes remain similar throughout the binding matrix and those volumes are only approximate and not exact. Material densities have been assumed to be similar to commonly found similar materials and may not be exact.

