

## AMR094 - AIRBORNE FIBRE MONITORING REPORT

<b>DATE OF ISSUE:</b>	1/5/2014	<b>JOB NAME:</b>	Randwick Barracks Asbestos Removal	<b>JOB NUMBER:</b>	43153
<b>SITE ADDRESS:</b>	Randwick Barracks, Randwick NSW	<b>CLIENT:</b>	Baulderstone Pty Ltd	<b>CLIENT CONTACT:</b>	Doug Wu
<b>DOCUMENT NUMBER:</b>	JBS&G 43153-57544	<b>SAMPLER/S:</b>	Matthew O'Brien	<b>ROTAMETER ID:</b>	R002
<b>SAMPLING DATE:</b>	30/4/2014	<b>ANALYSIS DATE:</b>	30/4/2014		

**TEST METHOD:** Estimation of Airborne Asbestos Fibres and Synthetic Mineral Fibres by the Membrane Filter Method. Dust particles collected and filters examined in accordance with the Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres [NOHSC:3003 (April 2005)], and Safer Environments Method 2. Australian Safer Environment & Technology Pty Ltd NATA Accreditation No: 14484.

Pump ID	Lab ID	Filter ID	Location Description	Start Time	Flow Rate Start (L/min)	End Time	Flow Rate End (L/min)	Average Flow Rate (L/min)	Result (Fibres/Field)	Result (Fibres/mL)
SKC 147	ASET38722-1	A169	North boundary of works adjacent demolition	07:45	1.50	14:00	1.50	1.50	1.5/100	<0.01
SKC 135	ASET38722-2	A73	NW boundary adjacent demolition	07:47	1.50	14:02	1.50	1.50	0.5/100	<0.01
SKC 150	ASET38722-3	A81	WEST boundary along Avoca Street	07:49	1.50	14:04	1.50	1.50	2.5/100	<0.01
SKC 006	ASET38722-4	A14	SOUTH boundary adjacent houses	07:51	1.50	14:06	1.50	1.50	1.5/100	<0.01
SKC 148	ASET38722-5	A127	NE boundary adjacemnt demolition works	07:53	1.50	14:08	1.50	1.50	0.5/100	<0.01
N/A	ASET38722-6	A61	Field Blank	-	-	-	-	-	0/100	-

**DESCRIPTION OF WORKS:** Asbestos removal works

**NOTE:** The results contained in this report relate only to the sample/s submitted for analysis

**COMMENT:** The calculated concentrations for the samples analysed are less than the minimum control action level of 0.01 fibres/mL for control monitoring as outlined in the Code of Practice - *How to Safely Remove Asbestos* (Safe Work Australia 2011).

**Prepared & Approved by:**



Michael Samuel  
 Licensed Asbestos Assessor (LAA 000157)  
 Operations Manager – Hazardous Materials and Air Monitoring  
**JBS&G (NSW & WA) Pty Ltd**



**Attachment 1 – Laboratory Reports**

## Certificate of Analysis

**JBS & G (NSW & WA) Pty Ltd**  
**Level 1, 50 Margaret St**  
**Sydney**  
**NSW 2000**



**NATA Accredited**  
**Accreditation Number 1261**  
**Site Number 18217**

Accredited for compliance with ISO/IEC 17025.  
 The results of the tests, calibrations and/or  
 measurements included in this document are traceable  
 to Australian/national standards.

**Attention:** **Michael Samuel**

**Report** **416552-A**  
 Client Reference 43153  
 Received Date Apr 30, 2014

<b>Client Sample ID</b>			<b>A169</b>	<b>A73</b>	<b>A81</b>	<b>A14</b>
<b>Sample Matrix</b>			<b>Air</b>	<b>Air</b>	<b>Air</b>	<b>Air</b>
<b>Eurofins   mgt Sample No.</b>			<b>S14-Ap22892</b>	<b>S14-Ap22893</b>	<b>S14-Ap22894</b>	<b>S14-Ap22895</b>
<b>Date Sampled</b>			<b>Apr 30, 2014</b>	<b>Apr 30, 2014</b>	<b>Apr 30, 2014</b>	<b>Apr 30, 2014</b>
Test/Reference	LOR	Unit				
Asbestos (fibre count in air)						
			see attached	see attached	see attached	see attached

<b>Client Sample ID</b>			<b>A127</b>	<b>A61</b>
<b>Sample Matrix</b>			<b>Air</b>	<b>Air</b>
<b>Eurofins   mgt Sample No.</b>			<b>S14-Ap22896</b>	<b>S14-Ap22897</b>
<b>Date Sampled</b>			<b>Apr 30, 2014</b>	<b>Apr 30, 2014</b>
Test/Reference	LOR	Unit		
Asbestos (fibre count in air)				
			see attached	see attached

<b>Company Name:</b> JBS & G (NSW & WA) Pty Ltd <b>Address:</b> Level 1, 50 Margaret St Sydney NSW 2000  <b>Client Job No.:</b> 43153	<b>Order No.:</b> <b>Report #:</b> 416552 <b>Phone:</b> 02 8245 0300 <b>Fax:</b>	<b>Received:</b> Apr 30, 2014 4:04 PM <b>Due:</b> Apr 30, 2014 <b>Priority:</b> Same day <b>Contact Name:</b> Michael Samuel
<b>Eurofins   mgt Client Manager: Jean Heng</b>		

Sample Detail					Asbestos (fibre count in air)
<b>Laboratory where analysis is conducted</b>					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					
Brisbane Laboratory - NATA Site # 20794					
<b>External Laboratory</b>					X
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
A169	Apr 30, 2014	2:00PM	Air	S14-Ap22892	X
A73	Apr 30, 2014	2:02PM	Air	S14-Ap22893	X
A81	Apr 30, 2014	2:04PM	Air	S14-Ap22894	X
A14	Apr 30, 2014	2:06PM	Air	S14-Ap22895	X
A127	Apr 30, 2014	2:08PM	Air	S14-Ap22896	X
A61	Apr 30, 2014		Air	S14-Ap22897	X

## Eurofins | mgt Internal Quality Control Review and Glossary

### General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Actual PQLs are matrix dependant. Quoted PQLs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis. 7. This report replaces any interim results previously issued.

### Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Acknowledgment.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

**\*\*NOTE:** pH duplicates are reported as a range NOT as RPD

### UNITS

**mg/kg:** milligrams per Kilogram

**mg/l:** milligrams per litre

**ug/l:** micrograms per litre

**ppm:** Parts per million

**ppb:** Parts per billion

**%:** Percentage

**org/100ml:** Organisms per 100 millilitres

**NTU:** Units

**MPN/100mL:** Most Probable Number of organisms per 100 millilitres

### TERMS

<b>Dry</b>	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
<b>LOR</b>	Limit of Reporting.
<b>SPIKE</b>	Addition of the analyte to the sample and reported as percentage recovery.
<b>RPD</b>	Relative Percent Difference between two Duplicate pieces of analysis.
<b>LCS</b>	Laboratory Control Sample - reported as percent recovery
<b>CRM</b>	Certified Reference Material - reported as percent recovery
<b>Method Blank</b>	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
<b>Surr - Surrogate</b>	The addition of a like compound to the analyte target and reported as percentage recovery.
<b>Duplicate</b>	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
<b>Batch Duplicate</b>	A second piece of analysis from a sample outside of the clients batch of samples but run within the laboratory batch of analysis.
<b>Batch SPIKE</b>	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
<b>USEPA</b>	United States Environmental Protection Agency
<b>APHA</b>	American Public Health Association
<b>ASLP</b>	Australian Standard Leaching Procedure (AS4439.3)
<b>TCLP</b>	Toxicity Characteristic Leaching Procedure
<b>COC</b>	Chain of Custody
<b>SRA</b>	Sample Receipt Advice
<b>CP</b>	Client Parent - QC was performed on samples pertaining to this report
<b>NCP</b>	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within
<b>TEQ</b>	Toxic Equivalency Quotient

### QC - ACCEPTANCE CRITERIA

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

### QC DATA GENERAL COMMENTS

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash " - " in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data.

**Comments**
**Sample Integrity**

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	No
Sample correctly preserved	Yes
Organic samples had Teflon liners	No
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	Yes

**Authorised By**

Jean Heng                      Client Services


**Dr. Bob Symons**
**Laboratory Manager**

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

\* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

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Our ref: ASET38722 / 41902 / 1 - 6  
Your ref: 416552  
NATA Accreditation No: 14484



30 April 2014

Eurofins | mgt  
Unit F3, 16 Mars Road  
Lane Cove West NSW 2066

**Attn: Dr Robert Symons**

**1. Introduction:**

This report presents the results of six control air monitoring samples forwarded for analysis by Eurofins | mgt on 30 April 2014.

**2. Methods:**

In accordance with the Worksafe Australia Guidance Notes on Membrane Filter Method on estimating air borne asbestos fibres- Second Edition – NOHSC – 3003 ( 2005) and (Safer Environment Method 2).

**3. Results**

<u>Location</u>	<u>Fibres/ 100 Fields</u>
<b>30/4/2014</b>	
<b>1- ASET38722 / 41902 / 1 – A169 - Ap22892</b>	<b>1.5 / 100</b>
<b>2- ASET38722 / 41902 / 2 – A73 - Ap22893</b>	<b>0.5 / 100</b>
<b>3- ASET38722 / 41902 / 3 – A81 - Ap22894</b>	<b>2.5 / 100</b>
<b>4- ASET38722 / 41902 / 4 – A14 - Ap22895</b>	<b>1.5 / 100</b>
<b>5- ASET38722 / 41902 / 5 – A127 - Ap22896</b>	<b>0.5 / 100</b>
<b>6- ASET38722 / 41902 / 6 – A61 - Ap22897</b>	<b>0.0 / 100</b>

Analysed and reported by,

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



**Accredited for compliance with ISO/IEC 17025.**

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