

304

PROJECT NO.: S0369						LABORATORY BATCH NO.:											
PROJECT NAME:						SAMPLERS: MMUR											
SEND REPORT TO: MHODGINS						PHONE: SYDNEY 02 8245 0300 - PERTH 08 9488 0100 EMAIL:											
DATE NEEDED BY:						QC LEVEL: NEPM (2013)											
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:																	
SAMPLE ID						MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	NOTES:						
AQ 25, 1-2						Soil	29/4		BAG								
AQ 25, 2-2.7																	
AQ 25, 2.7-3.3																	
AQ 26, 1-1.6																	
AQ 26, 2-2.9																	
AQ 26, 2.9-30(N)																	
AQ 31, 1-1.5																	
AQ 33, 1-2																	
AQ 36, 1-2																	
AQ 36, 2-3																	
AQ 37, 1-2																	
AQ 37, 2-3																	
AQ 37, 3-3.5																	
AQ 38, 0-0.2																	
AQ 48, 1-1.8																	
AQ 50, 1-2																	
AQ 50, 2-3																	
AQ 50, 3-3.2(W)																	
AQ 61, 1-2																	
RELINQUISHED BY:						METHOD OF SHIPMENT:				RECEIVED BY:				FOR RECEIVING LAB USE ONLY			
NAME: MM DATE: 4/5/15						CONSIGNMENT NOTE NO.				NAME:				COOLER SEAL - Yes No Intact Broken			
OF: JBS&G						TRANSPORT CO.				DATE:				COOLER TEMP deg C			
NAME:						CONSIGNMENT NOTE NO.				NAME: DATE:				COOLER SEAL - Yes No Intact Broken			
OF:						TRANSPORT CO.				OF:				COOLER TEMP deg C			
Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other																	

01163

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CHAIN OF CUSTODY



PROJECT NO.: 5036					LABORATORY BATCH NO:																			
PROJECT NAME:					SAMPLERS: MMURRAY																			
SEND REPORT TO: MTHODGINS					SEND INVOICE TO: ADMIN@JBSG.COM.AU					PHONE: SYDNEY 02 8245 0300 – PERTH 08 9488 0100										EMAIL: MTHODGINS@JBSG.COM.AU				
DATE NEEDED BY:					QC LEVEL: NEPM (2013)																			
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:					ASBESTOS (WA) HOLD																			
SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH																NOTES:			
AQ 61, 1-2	Soil	29/4		BAG																				
AQ 61, 2-3																								
AQ 64, 1-2																								
AQ 64, 2-2.5 (N)																								
AQ 65, 1-2																								
AQ 65, 2-2.7																								
AQ 66, 1-2																								
AQ 66, 2-3																								
AQ 67, 1-1.3																								
AQ 68, 1-1.5																								
AQ 69, 1-1.6																								
AQ 70, 0.7-1.2 (N)																								
AQ 72, 1-2																								
AQ 72, 2-3																								
AQ 72, 3-3.3																								
QC 21																								
QC 22																								
QC 23																								

RELINQUISHED BY:		METHOD OF SHIPMENT:		RECEIVED BY:		FOR RECEIVING LAB USE ONLY:	
NAME: MMURRAY	DATE: 4/5/15	CONSIGNMENT NOTE NO.		NAME:		COOLER SEAL – Yes ___ No ___ Intact ___ Broken ___	
OF: JBS&G		TRANSPORT CO.		DATE:		COOLER TEMP ___ deg C	
NAME:	DATE:	CONSIGNMENT NOTE NO.		NAME:	DATE:	COOLER SEAL – Yes ___ No ___ Intact ___ Broken ___	
OF:		TRANSPORT CO.		OF:		COOLER TEMP ___ deg C	

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

IMSO Forms 013 – Chain of Custody – Generic

Sample Receipt Advice

Company name: **JBS & G Australia (NSW & WA) P/L**

Contact name: Mitch Hodgins

Project name: WHR - V009

Project ID: 50369

COC number: Not provided

Turn around time: 2 Day

Date/Time received: May 4, 2015 6:15 PM

Eurofins | mgt reference: **456254**

Sample information

- ☒ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ☒ All samples have been received as described on the above COC.
- ☒ COC has been completed correctly.
- ☒ Attempt to chill was evident.
- ☒ Appropriately preserved sample containers have been used.
- ☒ All samples were received in good condition.
- ☒ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ☒ Appropriate sample containers have been used.
- ☒ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

AQ02 3-3.5, QC21-23 not received, analysis cancelled | AQ17 1-1.7 labelled as AQ16 1-1.7 as per COC | Extra samples received, AQ15 2 -2.2, AQ03 2-2.3, AQ04 1-2, AQ3 3.5, AQ61 3-3.5, 61 (1-2), AQ33 1-2 B, AQ 3.-3.5, all placed on hold

Contact notes

If you have any questions with respect to these samples please contact:

Charl Du Preez on Phone : or by e.mail: charldupreez@eurofins.com.au

Results will be delivered electronically via e.mail to Mitch Hodgins - mhodgins@jbsg.com.au.

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: Mitch Hodgins
Report 456258-AID
Project Name WHR - DATA GAP
Project ID 50369
Received Date May 04, 2015
Date Reported May 07, 2015

Methodology:

Asbestos ID Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. Bulk samples include building materials, soils and ores.

Subsampling Soil Samples The whole sample submitted is first dried and then sieved through a 10mm sieve followed by a 2mm sieve. All fibrous matter viz greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) Iron ores - Sampling and Sample preparation procedures is employed. Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis in accordance with AS 4964-2004.

Bonded asbestos-containing material (ACM) The material is first examined and any fibres isolated and where required interfering organic fibres or matter may be removed by treating the sample for several hours at a temperature not exceeding $400 \pm 30^{\circ}\text{C}$. The resultant material is then ground and examined in accordance with AS 4964-2004.

Limit of Reporting The nominal detection limit of the AS4964 method is around 0.01%. The examination of large sample sizes (at least 500 ml is recommended) may improve the likelihood of identifying asbestos material in the greater than 2 mm fraction. The NEPM screening level of 0.001% w/w asbestos in soil for FA and AF (i.e. non-bonded/friable asbestos) only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres. NOTE: NATA News, September 2011 – page 34, states, "Weighing of fibres is problematic and can lead to loss of fibres and potential exposure for laboratory analysts. To request laboratories to report information which is outside the scope of AS 4964-2004 and the scope of their accreditation is misleading and is most unwise" therefore such values reported are outside the scope of Eurofins | mgt NATA accreditation as designated by an asterisk.

Project Name WHR - DATA GAP
Project ID 50369
Date Sampled May 02, 2015
Report 456258-AID

Client Sample ID	Eurofins mgt Sample No.	Date Sampled	Sample Description	Result
RAQ144 0-0.7	15-My03119	May 02, 2015	Approximate Sample 565g Sample consisted of: Reddish brown fine-grained soil and rocks	AF: Chrysotile asbestos detected in the form of loose fibre bundles. Approximate raw weight of AF = 0.0003g Estimated asbestos content in AF = 0.0003g Total estimated asbestos concentration in AF = 0.0001% w/w* No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. ^{M11}
RAQ145 0-0.5	15-My03120	May 02, 2015	Approximate Sample 687g Sample consisted of: Greyish brown fine-grained soil and rocks	FA: Chrysotile and amosite asbestos detected in weathered fibre cement fragments. Approximate raw weight of FA = 0.0042g Estimated asbestos content in FA = 0.0034g AF: Chrysotile and amosite asbestos detected in the form of loose fibre bundles. Approximate raw weight of AF = 0.0003g Estimated asbestos content in AF = 0.0003g Total estimated asbestos content in FA and AF = 0.0037g Total estimated asbestos concentration in FA and AF = 0.0005% w/w* No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. ^{M11}

Client Sample ID	Eurofins mgt Sample No.	Date Sampled	Sample Description	Result
RAQ146 0-1	15-My03121	May 02, 2015	Approximate Sample 726g Sample consisted of: Greyish brown fine-grained soil and rocks	FA: Chrysotile asbestos detected in weathered fibre cement fragments. Approximate raw weight of FA = 0.0806g Estimated asbestos content in FA = 0.0484g AF: Chrysotile asbestos detected in the form of loose fibre bundles. Approximate raw weight of AF = 0.0015g Estimated asbestos content in AF = 0.0015g Total estimated asbestos content in FA and AF = 0.0499g Total estimated asbestos concentration in FA and AF = 0.0069% w/w* Organic fibre detected. ^{M11}
RAQ146 1-1.5	15-My03122	May 02, 2015	Approximate Sample 744g Sample consisted of: Reddish orange coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ147 0-0.2	15-My03123	May 02, 2015	Approximate Sample 701g Sample consisted of: Reddish brown fine-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ148 0-0.5	15-My03124	May 02, 2015	Approximate Sample 594g Sample consisted of: Brownish grey fine-grained soil and rocks	AF: Chrysotile asbestos detected in the form of loose fibre bundles. Approximate raw weight of AF = 0.0016g Estimated asbestos content in AF = 0.0016g Total estimated asbestos concentration in AF = 0.0003% w/w* No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. ^{M11}
RAQ149 0-0.2	15-My03125	May 02, 2015	Approximate Sample 1015g Sample consisted of: Greyish brown fine-grained soil and rocks	AF: Amosite asbestos detected in the form of loose fibre bundles. Approximate raw weight of AF = 0.0015g Estimated asbestos content in AF = 0.0015g Total estimated asbestos concentration in AF = 0.0001% w/w* No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. ^{M11}
RAQ150 0-0.5	15-My03126	May 02, 2015	Approximate Sample 626g Sample consisted of: Brownish grey fine-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ151 0-0.5	15-My03127	May 02, 2015	Approximate Sample 669g Sample consisted of: Greyish brown fine-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}

Client Sample ID	Eurofins mgt Sample No.	Date Sampled	Sample Description	Result
RAQ152 0-0.5	15-My03128	May 02, 2015	Approximate Sample 675g Sample consisted of: Greyish brown fine-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ153 0-0.6	15-My03129	May 02, 2015	Approximate Sample 818g Sample consisted of: Brownish grey fine-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ154 0-0.5	15-My03130	May 02, 2015	Approximate Sample 684g Sample consisted of: Reddish brown fine-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ155 0-0.4	15-My03131	May 02, 2015	Approximate Sample 494g Sample consisted of: Brown fine-grained soil and rocks	No asbestos detected at the reporting limit of 0.002% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ156 0-0.1	15-My03132	May 02, 2015	Approximate Sample 558g Sample consisted of: Brownish grey fine-grained soil and rocks	ACM: Chrysotile, amosite and crocidolite asbestos detected in fibre cement fragments. Raw weight of ACM = 27.1134g Total estimated asbestos content in ACM = 4.0670g Total estimated asbestos concentration in ACM = 0.7286% w/w FA: Chrysotile, amosite and crocidolite asbestos detected in weathered fibre cement fragments. Approximate raw weight of FA = 0.5655g Estimated asbestos content in FA = 0.4524g AF: Chrysotile, amosite and crocidolite asbestos detected in the form of loose fibre bundles. Approximate raw weight of AF = 0.0580g Estimated asbestos content in AF = 0.0580g Total estimated asbestos content in FA and AF = 0.5104g Total estimated asbestos concentration in FA and AF = 0.0914% w/w Organic fibre detected. ^{M11}

Client Sample ID	Eurofins mgt Sample No.	Date Sampled	Sample Description	Result
RAQ156 1-2	15-My03133	May 02, 2015	Approximate Sample 624g Sample consisted of: Greyish brown fine-grained soil and rocks	FA: Chrysotile, amosite and crocidolite asbestos detected in weathered fibre cement fragments. Approximate raw weight of FA = 0.0459g Estimated asbestos content in FA = 0.0367g AF: Chrysotile, amosite and crocidolite asbestos detected in the form of loose fibre bundles. Approximate raw weight of AF = 0.0022g Estimated asbestos content in AF = 0.0022g Total estimated asbestos content in FA and AF = 0.0389g Total estimated asbestos concentration in FA and AF = 0.0062% w/w* Organic fibre detected.^{M11}
RAQ156 2-3	15-My03134	May 02, 2015	Approximate Sample 705g Sample consisted of: Greyish brown fine-grained soil and rocks	ACM: Chrysotile, amosite and crocidolite asbestos detected in fibre cement fragments. Raw weight of ACM = 0.3787g Total estimated asbestos content in ACM = 0.0757g Total estimated asbestos concentration in ACM = 0.0107% w/w FA: Chrysotile, amosite and crocidolite asbestos detected in weathered fibre cement fragments. Approximate raw weight of FA = 0.1062g Estimated asbestos content in FA = 0.0850g AF: Chrysotile, amosite and crocidolite asbestos detected in the form of loose fibre bundles. Approximate raw weight of AF = 0.0071g Estimated asbestos content in AF = 0.0071g Total estimated asbestos content in FA and AF = 0.0921g Total estimated asbestos concentration in FA and AF = 0.0131% w/w Organic fibre detected.^{M11}

Client Sample ID	Eurofins mgt Sample No.	Date Sampled	Sample Description	Result
RAQ159 0-1	15-My03138	May 02, 2015	Approximate Sample 754g Sample consisted of: Brownish grey fine-grained soil and rocks	FA: Chrysotile, amosite and crocidolite asbestos detected in weathered fibre cement fragments. Approximate raw weight of FA = 0.2387g Estimated asbestos content in FA = 0.0955g AF: Chrysotile, amosite and crocidolite asbestos detected in the form of loose fibre bundles. Approximate raw weight of AF = 0.0027g Estimated asbestos content in AF = 0.0027g Total estimated asbestos content in FA and AF = 0.0982g Total estimated asbestos concentration in FA and AF = 0.0130% w/w Organic fibre detected.^{M11}
RAQ159 1-2	15-My03139	May 02, 2015	Approximate Sample 611g Sample consisted of: Greyish brown fine-grained soil and rocks	AF: Chrysotile asbestos detected in the form of loose fibre bundles. Approximate raw weight of AF = 0.0008g Estimated asbestos content in AF = 0.0008g Total estimated asbestos concentration in AF = 0.0001% w/w* No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected.^{M11}
RAQ159 2-3	15-My03140	May 02, 2015	Approximate Sample 668g Sample consisted of: Greyish brown fine-grained soil and rocks	FA: Chrysotile asbestos detected in weathered fibre cement fragments. Approximate raw weight of FA = 0.0087g Estimated asbestos content in FA = 0.0070g AF: Chrysotile and amosite asbestos detected in the form of loose fibre bundles. Approximate raw weight of AF = 0.0006g Estimated asbestos content in AF = 0.0006g Total estimated asbestos content in FA and AF = 0.0076g Total estimated asbestos concentration in FA and AF = 0.0011% w/w* Organic fibre detected.^{M11}

Client Sample ID	Eurofins mgt Sample No.	Date Sampled	Sample Description	Result
RAQ160 0-1	15-My03142	May 02, 2015	Approximate Sample 580g Sample consisted of: Greyish brown fine-grained soil and rocks	FA: Chrysotile and crocidolite asbestos detected in weathered fibre cement debris. Approximate raw weight of FA = 0.0022g Estimated asbestos content in FA = 0.0018g AF: Chrysotile, amosite and crocidolite asbestos detected in the form of loose fibre bundles. Approximate raw weight of AF = 0.0028g Estimated asbestos content in AF = 0.0028g Total estimated asbestos content in FA and AF = 0.0046g Total estimated asbestos concentration in FA and AF = 0.0008% w/w* No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected.^{M11}
RAQ160 1-2	15-My03143	May 02, 2015	Approximate Sample 728g Sample consisted of: Greyish brown fine-grained soil and rocks	ACM: Chrysotile asbestos detected in fibre cement fragments. Raw weight of ACM = 1.1918g Total estimated asbestos content in ACM = 0.1788g Total estimated asbestos concentration in ACM = 0.0246% w/w FA: Chrysotile, amosite and crocidolite asbestos detected in weathered fibre cement fragments. Approximate raw weight of FA = 0.0110g Estimated asbestos content in FA = 0.0066g AF: Chrysotile and amosite asbestos detected in the form of loose fibre bundles. Approximate raw weight of AF = 0.0036g Estimated asbestos content in AF = 0.0036g Total estimated asbestos content in FA and AF = 0.0102g Total estimated asbestos concentration in FA and AF = 0.0014% w/w* Organic fibre detected.^{M11}

Client Sample ID	Eurofins mgt Sample No.	Date Sampled	Sample Description	Result
RAQ160 2-3	15-My03144	May 02, 2015	Approximate Sample 624g Sample consisted of: Greyish brown fine-grained soil and rocks	ACM: Chrysotile, amosite and crocidolite asbestos detected in fibre cement fragments. Raw weight of ACM = 21.8000g Total estimated asbestos content in ACM = 3.2700g Total estimated asbestos concentration in ACM = 0.5243% w/w FA: Chrysotile, amosite and crocidolite asbestos detected in weathered fibre cement fragments. Approximate raw weight of FA = 1.7500g Estimated asbestos content in FA = 1.2250g AF: Chrysotile, amosite and crocidolite asbestos detected in fibre cement fragments and in the form of loose fibre bundles. Approximate raw weight of AF = 3.8500g Estimated asbestos content in AF = 1.5400g Total estimated asbestos content in FA and AF = 2.7650g Total estimated asbestos concentration in FA and AF = 0.4433% w/w Organic fibre detected. ^{M11}
RAQ157 0-1	15-My03146	May 02, 2015	Approximate Sample 724g Sample consisted of: Greyish brown fine-grained soil and rocks	AF: Amosite asbestos detected in the form of loose fibre bundles. Approximate raw weight of AF = 0.0006g Estimated asbestos content in AF = 0.0006g Total estimated asbestos concentration in AF = 0.0001% w/w* No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. ^{M11}
RAQ158 0-0.5	15-My03147	May 02, 2015	Approximate Sample 1010g Sample consisted of: Greyish brown fine-grained soil, rocks and bitumen	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ161 0-0.5	15-My03148	May 02, 2015	Approximate Sample 633g Sample consisted of: Greyish brown fine-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ162 0-1	15-My03149	May 02, 2015	Approximate Sample 1365g Sample consisted of: Greenish grey fine-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ163 0-0.5	15-My03150	May 02, 2015	Approximate Sample 1175g Sample consisted of: Greenish grey fine-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}

Client Sample ID	Eurofins mgt Sample No.	Date Sampled	Sample Description	Result
RAQ164 0-0.5	15-My03151	May 02, 2015	Approximate Sample 717g Sample consisted of: Greyish brown fine-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ165 0-0.4	15-My03152	May 02, 2015	Approximate Sample 748g Sample consisted of: Greenish grey fine-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ166 0-0.9	15-My03153	May 02, 2015	Approximate Sample 797g Sample consisted of: Pinkish grey coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ170 0-1	15-My03154	May 02, 2015	Approximate Sample 612g Sample consisted of: Greyish pink fine-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ170 1-2	15-My03155	May 02, 2015	Approximate Sample 680g Sample consisted of: Greyish pink fine-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ171 0-1	15-My03157	May 02, 2015	Approximate Sample 396g Sample consisted of: Greyish pink fine-grained soil and rocks	No asbestos detected at the reporting limit of 0.002% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ171 1-2	15-My03158	May 02, 2015	Approximate Sample 634g Sample consisted of: Greyish brown fine-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ172 0-1	15-My03159	May 02, 2015	Approximate Sample 509g Sample consisted of: Reddish orange fine-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ173 0-1	15-My03160	May 02, 2015	Approximate Sample 671g Sample consisted of: Reddish orange fine-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ176 0-1	15-My03161	May 02, 2015	Approximate Sample 1243g Sample consisted of: Greenish grey fine-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ176 1-2	15-My03162	May 02, 2015	Approximate Sample 624g Sample consisted of: Greyish brown fine-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ176 2-3	15-My03163	May 02, 2015	Approximate Sample 462g Sample consisted of: Greyish brown fine-grained soil and rocks	No asbestos detected at the reporting limit of 0.002% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ167 0-1	15-My03165	May 02, 2015	Approximate Sample 1012g Sample consisted of: Greyish brown fine-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}

Client Sample ID	Eurofins mgt Sample No.	Date Sampled	Sample Description	Result
RAQ168 0-1	15-My03166	May 02, 2015	Approximate Sample 1106g Sample consisted of: Brownish grey fine-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ169 0-1	15-My03167	May 02, 2015	Approximate Sample 1073g Sample consisted of: Brownish grey fine-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8020	Sydney	May 05, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WHR - DATA GAP
Project ID: 50369

Order No.:
Report #: 456258
Phone: 02 8245 0300
Fax:

Received: May 4, 2015 6:15 PM
Due: May 7, 2015
Priority: 2 Day
Contact Name: Mitch Hodgins

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos - WA guidelines	CANCELLED	HOLD
Laboratory where analysis is conducted							
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217					X	X	X
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID			
RAQ144 0-0.7	May 02, 2015		Soil	S15-My03119	X		
RAQ145 0-0.5	May 02, 2015		Soil	S15-My03120	X		
RAQ146 0-1	May 02, 2015		Soil	S15-My03121	X		
RAQ146 1-1.5	May 02, 2015		Soil	S15-My03122	X		
RAQ147 0-0.2	May 02, 2015		Soil	S15-My03123	X		
RAQ148 0-0.5	May 02, 2015		Soil	S15-My03124	X		
RAQ149 0-0.2	May 02, 2015		Soil	S15-My03125	X		
RAQ150 0-0.5	May 02, 2015		Soil	S15-My03126	X		
RAQ151 0-0.5	May 02, 2015		Soil	S15-My03127	X		

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WHR - DATA GAP
Project ID: 50369

Order No.:
Report #: 456258
Phone: 02 8245 0300
Fax:

Received: May 4, 2015 6:15 PM
Due: May 7, 2015
Priority: 2 Day
Contact Name: Mitch Hodgins

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos - WA guidelines	CANCELLED	HOLD
Laboratory where analysis is conducted							
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217					X	X	X
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
RAQ152 0-0.5	May 02, 2015		Soil	S15-My03128	X		
RAQ153 0-0.6	May 02, 2015		Soil	S15-My03129	X		
RAQ154 0-0.5	May 02, 2015		Soil	S15-My03130	X		
RAQ155 0-0.4	May 02, 2015		Soil	S15-My03131	X		
RAQ156 0-0.1	May 02, 2015		Soil	S15-My03132	X		
RAQ156 1-2	May 02, 2015		Soil	S15-My03133	X		
RAQ156 2-3	May 02, 2015		Soil	S15-My03134	X		
RAQ156 3-4	May 02, 2015		Soil	S15-My03135			X
RAQ156 4-5	May 02, 2015		Soil	S15-My03136			X
RAQ156 5-5.3	May 02, 2015		Soil	S15-My03137			X

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WHR - DATA GAP
Project ID: 50369

Order No.:
Report #: 456258
Phone: 02 8245 0300
Fax:

Received: May 4, 2015 6:15 PM
Due: May 7, 2015
Priority: 2 Day
Contact Name: Mitch Hodgins

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos - WA guidelines	CANCELLED	HOLD
Laboratory where analysis is conducted							
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217					X	X	X
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
RAQ159 0-1	May 02, 2015		Soil	S15-My03138	X		
RAQ159 1-2	May 02, 2015		Soil	S15-My03139	X		
RAQ159 2-3	May 02, 2015		Soil	S15-My03140	X		
RAQ159 3-4	May 02, 2015		Soil	S15-My03141			X
RAQ160 0-1	May 02, 2015		Soil	S15-My03142	X		
RAQ160 1-2	May 02, 2015		Soil	S15-My03143	X		
RAQ160 2-3	May 02, 2015		Soil	S15-My03144	X		
RAQ160 3-4	May 02, 2015		Soil	S15-My03145			X
RAQ157 0-1	May 02, 2015		Soil	S15-My03146	X		
RAQ158 0-0.5	May 02, 2015		Soil	S15-My03147	X		

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WHR - DATA GAP
Project ID: 50369

Order No.:
Report #: 456258
Phone: 02 8245 0300
Fax:

Received: May 4, 2015 6:15 PM
Due: May 7, 2015
Priority: 2 Day
Contact Name: Mitch Hodgins

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos - WA guidelines	CANCELLED	HOLD
Laboratory where analysis is conducted							
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217					X	X	X
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
RAQ161 0-0.5	May 02, 2015		Soil	S15-My03148	X		
RAQ162 0-1	May 02, 2015		Soil	S15-My03149	X		
RAQ163 0-0.5	May 02, 2015		Soil	S15-My03150	X		
RAQ164 0-0.5	May 02, 2015		Soil	S15-My03151	X		
RAQ165 0-0.4	May 02, 2015		Soil	S15-My03152	X		
RAQ166 0-0.9	May 02, 2015		Soil	S15-My03153	X		
RAQ170 0-1	May 02, 2015		Soil	S15-My03154	X		
RAQ170 1-2	May 02, 2015		Soil	S15-My03155	X		
RAQ170 2-2.7	May 02, 2015		Soil	S15-My03156			X
RAQ171 0-1	May 02, 2015		Soil	S15-My03157	X		

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WHR - DATA GAP
Project ID: 50369

Order No.:
Report #: 456258
Phone: 02 8245 0300
Fax:

Received: May 4, 2015 6:15 PM
Due: May 7, 2015
Priority: 2 Day
Contact Name: Mitch Hodgins

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos - WA guidelines	CANCELLED	HOLD
Laboratory where analysis is conducted							
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217					X	X	X
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
RAQ171 1-2	May 02, 2015		Soil	S15-My03158	X		
RAQ172 0-1	May 02, 2015		Soil	S15-My03159	X		
RAQ173 0-1	May 02, 2015		Soil	S15-My03160	X		
RAQ176 0-1	May 02, 2015		Soil	S15-My03161	X		
RAQ176 1-2	May 02, 2015		Soil	S15-My03162	X		
RAQ176 2-3	May 02, 2015		Soil	S15-My03163	X		
QC024	May 02, 2015		Soil	S15-My03164		X	
RAQ167 0-1	May 02, 2015		Soil	S15-My03165	X		
RAQ168 0-1	May 02, 2015		Soil	S15-My03166	X		
RAQ169 0-1	May 02, 2015		Soil	S15-My03167	X		

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WHR - DATA GAP
Project ID: 50369

Order No.:
Report #: 456258
Phone: 02 8245 0300
Fax:

Received: May 4, 2015 6:15 PM
Due: May 7, 2015
Priority: 2 Day
Contact Name: Mitch Hodgins

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos - WA guidelines	CANCELLED	HOLD
Laboratory where analysis is conducted							
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217					X	X	X
Brisbane Laboratory - NATA Site # 20794							
External Laboratory							
RAQ156 5.3-5.5	May 02, 2015		Soil	S15-My03444			X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

The LORs have been raised as there was insufficient sample provided for analysis.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable
M11	NATA accreditation does not cover the performance of this service.

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson
National 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

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

Eurofins 1-3

IMSO Forms Q13 - Chain of Custody - Generic

2-3

[illegible]

3-3

[illegible]

Sample Receipt Advice

Company name: **JBS & G Australia (NSW & WA) P/L**
Contact name: Mitch Hodgins
Project name: WHR - DATA GAP
Project ID: 50369
COC number: Not provided
Turn around time: 2 Day
Date/Time received: May 4, 2015 6:15 PM
Eurofins | mgt reference: **456258**

Sample information

- ☒ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ☒ All samples have been received as described on the above COC.
- ☒ COC has been completed correctly.
- ☒ Attempt to chill was evident.
- ☒ Appropriately preserved sample containers have been used.
- ☒ All samples were received in good condition.
- ☒ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ☒ Appropriate sample containers have been used.
- ☒ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

RAQ146 0-0.2 labelled as RAQ147 0-0.2 and RAQ163 0-0.4 labelled as RAQ163 0-0.5 as per COC | Extra sample received, RAQ156 5.3-5.5, placed on hold

Contact notes

If you have any questions with respect to these samples please contact:

Charl Du Preez on Phone : or by e.mail: charldupreez@eurofins.com.au

Results will be delivered electronically via e.mail to Mitch Hodgins - mhodgins@jbsg.com.au.

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: Mitch Hodgins
Report 456563-AID
Project Name WHR - V009
Project ID 50369
Received Date May 06, 2015
Date Reported May 08, 2015

Methodology:

Asbestos ID	Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. Bulk samples include building materials, soils and ores.
Subsampling Soil Samples	The whole sample submitted is first dried and then sieved through a 10mm sieve followed by a 2mm sieve. All fibrous matter viz greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) Iron ores - Sampling and Sample preparation procedures is employed. Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis in accordance with AS 4964-2004.
Bonded asbestos-containing material (ACM)	The material is first examined and any fibres isolated and where required interfering organic fibres or matter may be removed by treating the sample for several hours at a temperature not exceeding $400 \pm 30^{\circ}\text{C}$. The resultant material is then ground and examined in accordance with AS 4964-2004.
Limit of Reporting	The nominal detection limit of the AS4964 method is around 0.01%. The examination of large sample sizes (at least 500 ml is recommended) may improve the likelihood of identifying asbestos material in the greater than 2 mm fraction. The NEPM screening level of 0.001% w/w asbestos in soil for FA and AF (i.e. non-bonded/friable asbestos) only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres. NOTE: NATA News, September 2011 – page 34, states, "Weighing of fibres is problematic and can lead to loss of fibres and potential exposure for laboratory analysts. To request laboratories to report information which is outside the scope of AS 4964-2004 and the scope of their accreditation is misleading and is most unwise" therefore such values reported are outside the scope of Eurofins mgt NATA accreditation as designated by an asterisk.

Project Name WHR - V009
Project ID 50369
Date Sampled Apr 29, 2015 to Apr 30, 2015
Report 456563-AID

Client Sample ID	Eurofins mgt Sample No.	Date Sampled	Sample Description	Result
QC21	15-My05280	Apr 29, 2015	Approximate Sample 870g Sample consisted of: Brown fine-grained clayey soil and rocks	ACM: Chrysotile and amosite asbestos detected in a fibre cement fragment. Raw weight of ACM = 1.7940g Total estimated asbestos content in ACM = 0.2691g Total estimated asbestos concentration in ACM = 0.0309% w/w FA: Amosite asbestos detected in fibrous insulation-like debris. Approximate raw weight of FA = 0.0032g Estimated asbestos content in FA = 0.0029g AF: Chrysotile and amosite asbestos detected in the form of loose fibre bundles. Approximate raw weight of AF = 0.0052g Estimated asbestos content in AF = 0.0052g Total estimated asbestos content in FA and AF = 0.0081g Total estimated asbestos concentration in FA and AF = 0.0009% w/w.* No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected.^{M11}

Client Sample ID	Eurofins mgt Sample No.	Date Sampled	Sample Description	Result
QC22	15-My05281	Apr 29, 2015	Approximate Sample 900g Sample consisted of: Brown fine-grained clayey soil and rocks	FA: Chrysotile, amosite and crocidolite asbestos detected in weathered fibre cement fragments. Approximate raw weight of FA = 0.0015g Estimated asbestos content in FA = 0.0013g AF: Chrysotile and amosite asbestos detected in the form of loose fibre bundles. Approximate raw weight of AF = 0.0012g Estimated asbestos content in AF = 0.0012g Total estimated asbestos content in FA and AF = 0.0025g Total estimated asbestos concentration in FA and AF = 0.0003% w/w* No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected.^{M11}
QC23	15-My05282	Apr 30, 2015	Approximate Sample 617g Sample consisted of: Brownish grey coarse-grained soil and rocks	FA: Chrysotile, amosite and crocidolite asbestos detected in weathered fibre cement fragments. Approximate raw weight of FA = 0.0105g Estimated asbestos content in FA = 0.0063g AF: Chrysotile, amosite and crocidolite asbestos detected in the form of loose fibre bundles. Approximate raw weight of AF = 0.0159g Estimated asbestos content in AF = 0.0159g Total estimated asbestos content in FA and AF = 0.0222g Total estimated asbestos concentration in FA and AF = 0.0036% w/w* Organic fibre detected.^{M11}

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8020	Sydney	May 06, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WHR - V009
Project ID: 50369

Order No.:
Report #: 456563
Phone: 02 8245 0300
Fax:

Received: May 6, 2015 1:37 PM
Due: May 8, 2015
Priority: 2 Day
Contact Name: Mitch Hodgins

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos - WA guidelines
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
QC21	Apr 29, 2015		Soil	S15-My05280	X
QC22	Apr 29, 2015		Soil	S15-My05281	X
QC23	Apr 30, 2015		Soil	S15-My05282	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable
M11	NATA accreditation does not cover the performance of this service.

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson
National 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

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

Sample Receipt 1 Syd

Subject: FW: 50369 Extra Bag Samples Received

From: Matthew Murray [<mailto:MMurray@jbsg.com.au>]
Sent: Wednesday, 6 May 2015 1:37 PM
To: Mitchell Hodgins; Charl DuPreez
Subject: Re: 50369 Extra Bag Samples Received

Hi Charl,

In regards to the table referring to extra samples recieved, please dispose of all samples except for QCa, QCb and QCc. Those three QC samples have been renamed as QC21, QC22 and QC23 and are listed in the COCs provided. Sorry for the confusion and please give me a call on 0405733369 if you have any questions.

Cheers

Matthew Murray | Environmental Consultant | JBS&G
Sydney | Melbourne | Adelaide | Perth | Brisbane
Level 1, 50 Margaret Street Sydney NSW 2000
T: 02 8245 0300 | M: 0405 733 369 | mmurray@jbsg.com.au

Contaminated Land | Groundwater Remediation | Auditing and Compliance | Assessments and Approvals | Occupational Hygiene and Monitoring

Log #456563

From: Mitchell Hodgins
Sent: Wednesday, 6 May 2015 8:47 AM
To: Matthew Murray
Subject: FW: 50369 Extra Bag Samples Received

See below.

From: Charl DuPreez [<mailto:CharlDuPreez@eurofins.com.au>]
Sent: Tuesday, 5 May 2015 5:01 PM
To: Mitchell Hodgins
Subject: FW: 50369 Extra Bag Samples Received

Hi Mitch -

Please find below samples with no scheduled analysis.

Regards

Charl DuPreez
Phone : +61 2 9900 8415
Email : CharlDuPreez@eurofins.com.au

To facilitate the use of ESdat's new LSPECS software, all ESdat files will now be accompanied by a Header file.

Eurofins now supports ESdat Online! Produce Exceedances Tables, check QA and overlay on Google Maps – all online, through a browser.

Try two Eurofins reports for free. Simply send an email indicating which two Eurofins reports you would like to trial to info@esdat.net and cc your Eurofins contact.

Sample Receipt Advice

Company name: **JBS & G Australia (NSW & WA) P/L**

Contact name: Mitch Hodgins

Project name: WHR - V009

Project ID: 50369

COC number: Not provided

Turn around time: 2 Day

Date/Time received: May 6, 2015 1:37 PM

Eurofins | mgt reference: **456563**

Sample information

- ☒ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ☒ All samples have been received as described on the above COC.
- ☒ COC has been completed correctly.
- ☒ Attempt to chill was evident.
- ☒ Appropriately preserved sample containers have been used.
- ☒ All samples were received in good condition.
- ☒ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ☒ Appropriate sample containers have been used.
- ☒ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

All other samples in report 456254

Contact notes

If you have any questions with respect to these samples please contact:

Charl Du Preez on Phone : or by e.mail: charldupreez@eurofins.com.au

Results will be delivered electronically via e.mail to Mitch Hodgins - mhodgins@jbsg.com.au.

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: Mitch Hodgins
Report 456580-AID
Project Name WHR -V005
Project ID 50369
Received Date May 06, 2015
Date Reported May 08, 2015

Methodology:

Asbestos ID Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. Bulk samples include building materials, soils and ores.

Subsampling Soil Samples The whole sample submitted is first dried and then sieved through a 10mm sieve followed by a 2mm sieve. All fibrous matter viz greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) Iron ores - Sampling and Sample preparation procedures is employed. Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis in accordance with AS 4964-2004.

Bonded asbestos-containing material (ACM) The material is first examined and any fibres isolated and where required interfering organic fibres or matter may be removed by treating the sample for several hours at a temperature not exceeding $400 \pm 30^{\circ}\text{C}$. The resultant material is then ground and examined in accordance with AS 4964-2004.

Limit of Reporting The nominal detection limit of the AS4964 method is around 0.01%. The examination of large sample sizes (at least 500 ml is recommended) may improve the likelihood of identifying asbestos material in the greater than 2 mm fraction. The NEPM screening level of 0.001% w/w asbestos in soil for FA and AF (i.e. non-bonded/friable asbestos) only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres. NOTE: NATA News, September 2011 – page 34, states, "Weighing of fibres is problematic and can lead to loss of fibres and potential exposure for laboratory analysts. To request laboratories to report information which is outside the scope of AS 4964-2004 and the scope of their accreditation is misleading and is most unwise" therefore such values reported are outside the scope of Eurofins | mgt NATA accreditation as designated by an asterisk.

Project Name WHR -V005
Project ID 50369
Date Sampled May 05, 2015
Report 456580-AID

Client Sample ID	Eurofins mgt Sample No.	Date Sampled	Sample Description	Result
RAQ177 0-0.4	15-My05352	May 05, 2015	Approximate Sample 574g Sample consisted of: Dark brown coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ178 0-0.2	15-My05353	May 05, 2015	Approximate Sample 769g Sample consisted of: Brown coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ179 0-0.2	15-My05354	May 05, 2015	Approximate Sample 662g Sample consisted of: Brown coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ185 0-0.2	15-My05355	May 05, 2015	Approximate Sample 547g Sample consisted of: Grey coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ186 0-0.2	15-My05356	May 05, 2015	Approximate Sample 485g Sample consisted of: Grey coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.002% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ187 0-0.2	15-My05357	May 05, 2015	Approximate Sample 593g Sample consisted of: Grey coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}
RAQ188 0-0.2	15-My05358	May 05, 2015	Approximate Sample 468g Sample consisted of: Grey coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.002% w/w.* Organic fibre detected. No respirable fibres detected. ^{M11}

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8020	Sydney	May 07, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WHR -V005
Project ID: 50369

Order No.:
Report #: 456580
Phone: 02 8245 0300
Fax:

Received: May 6, 2015 5:22 PM
Due: May 8, 2015
Priority: 2 Day
Contact Name: Mitch Hodgins

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos - WA guidelines
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
RAQ177 0-0.4	May 05, 2015		Soil	S15-My05352	X
RAQ178 0-0.2	May 05, 2015		Soil	S15-My05353	X
RAQ179 0-0.2	May 05, 2015		Soil	S15-My05354	X
RAQ185 0-0.2	May 05, 2015		Soil	S15-My05355	X
RAQ186 0-0.2	May 05, 2015		Soil	S15-My05356	X
RAQ187 0-0.2	May 05, 2015		Soil	S15-My05357	X
RAQ188 0-0.2	May 05, 2015		Soil	S15-My05358	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

The LORs have been raised as there was insufficient sample provided for analysis.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable
M11	NATA accreditation does not cover the performance of this service.

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson
National 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

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

Sample Receipt Advice

Company name: **JBS & G Australia (NSW & WA) P/L**

Contact name: Mitch Hodgins

Project name: WHR -V005

Project ID: 50369

COC number: Not provided

Turn around time: 2 Day

Date/Time received: May 6, 2015 5:22 PM

Eurofins | mgt reference: **456580**

Sample information

- ☒ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ☒ Sample Temperature of a random sample selected from the batch as recorded by Eurofins | mgt Sample Receipt : 17.5 degrees Celsius.
- ☒ All samples have been received as described on the above COC.
- ☒ COC has been completed correctly.
- ☒ Attempt to chill was evident.
- ☒ Appropriately preserved sample containers have been used.
- ☒ All samples were received in good condition.
- ☒ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ☒ Appropriate sample containers have been used.
- ☒ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Contact notes

If you have any questions with respect to these samples please contact:

Charl Du Preez on Phone : or by e.mail: charldupreez@eurofins.com.au

Results will be delivered electronically via e.mail to Mitch Hodgins - mhodgins@jbsg.com.au.



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12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

SAMPLE RECEIPT ADVICE

Client:

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

ph: 02 8245 0300

Fax: 02 8245 0399

Attention: M Hodgins

Sample log in details:

Your reference:	50369
Envirolab Reference:	123019
Date received:	05/02/15
Date results expected to be reported:	12/02/15

Samples received in appropriate condition for analysis:	YES
No. of samples provided	2 soils
Turnaround time requested:	Standard
Temperature on receipt (°C)	na
Cooling Method:	None
Sampling Date Provided:	

Comments:

If there is sufficient sample after testing, samples will be held for the following time frames from date of receipt of samples:

Water samples - 1 month

Soil and other solid samples - 2 months

Samples collected in canisters - 1 week. Canisters will then be cleaned.

All other samples are not retained after analysis

If you require samples to be retained for longer periods then retention fees will apply as per our pricelist.

Contact details:

Please direct any queries to Aileen Hie or Jacinta Hurst

ph: 02 9910 6200 fax: 02 9910 6201

email: ahie@envirolabservices.com.au or jhurst@envirolabservices.com.au

JMSD Forms013 - Chain of Custody - Generic

CERTIFICATE OF ANALYSIS

123019

Client:

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

Attention: M Hodgins

Sample log in details:

Your Reference:	50369	
No. of samples:	2 soils	
Date samples received / completed instructions received	05/02/15	/ 05/02/15

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:	12/02/15	/	11/02/15
Date of Preliminary Report:	Not Issued		

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Accredited for compliance with ISO/IEC 17025. **Tests not covered by NATA are denoted with *.**

Results Approved By:



Jacinta Hurst
Laboratory Manager

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	123019-1 QCA1 Soil	123019-2 QCA2 Soil
Date analysed	-	11/02/2015	11/02/2015
Sample mass tested	g	694.73g	573.97g
Sample Description	-	Brown coarse grain soil & rocks	Brown coarse grain soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected
ACM >7mm Estimation*	g	--	--
ACM <7mm Estimation*	g	--	--
FA and AF Estimation*	g	--	--
Total Asbestos g/kg*	g/kg	<0.1	<0.1
ACM >7mm Estimation %(w/w)*	%	<0.01	<0.01
ACM <7mm Estimation %(w/w)*	%	<0.001	<0.001
FA and AF Estimation %(w/w)*	%	<0.001	<0.001
Total Asb Est w/w* Note [#]	%	<0.001	<0.001

Method ID	Methodology Summary
ASB-001	Asbestos ID - Identification of asbestos in soil samples using Polarised Light Microscopy and Dispersion Staining Techniques. Minimum 500mL soil sample was analysed as recommended by "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" with a reporting limit of 0.1g/kg (0.01% w/w) as per Australian Standard AS4964-2004. Results reported denoted with * are outside our scope of NATA accreditation. NOTE # The screening level of 0.001% w/w asbestos in soil for FA and AF only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres. Results reported with "--" is equivalent to no visible asbestos identified using Polarised Light Microscopy and Dispersion Staining Techniques.
ASB-001	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.

Report Comments:

This report is consistent with the reporting recommendations in the National Environment Protection (Assessment of Site Contamination) Measure, Schedule B1, May 2013.
This is reported outside our scope of NATA accreditation.

Asbestos ID was analysed by Approved Identifier: Lulu Guo
Asbestos ID was authorised by Approved Signatory: Lulu Guo

INS: Insufficient sample for this test
NA: Test not required
<: Less than

PQL: Practical Quantitation Limit
RPD: Relative Percent Difference
>: 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 batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

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.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.



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enquiries@envirolabservices.com.au
www.envirolabservices.com.au

SAMPLE RECEIPT ADVICE

Client:

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

ph: 02 8245 0300

Fax: 02 8245 0399

Attention: M Hodgins

Sample log in details:

Your reference:	50369
Envirolab Reference:	123370
Date received:	11/02/15
Date results expected to be reported:	18/02/15

Samples received in appropriate condition for analysis:	YES
No. of samples provided	2 soils
Turnaround time requested:	Standard
Temperature on receipt (°C)	na
Cooling Method:	None
Sampling Date Provided:	

Comments:

If there is sufficient sample after testing, samples will be held for the following time frames from date of receipt of samples:

Water samples - 1 month

Soil and other solid samples - 2 months

Samples collected in canisters - 1 week. Canisters will then be cleaned.

All other samples are not retained after analysis

If you require samples to be retained for longer periods then retention fees will apply as per our pricelist.

Contact details:

Please direct any queries to Aileen Hie or Jacinta Hurst

ph: 02 9910 6200 fax: 02 9910 6201

email: ahie@envirolabservices.com.au or jhurst@envirolabservices.com.au

[illegible]

CERTIFICATE OF ANALYSIS

123370

Client:

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

Attention: M Hodgins

Sample log in details:

Your Reference:	50369	
No. of samples:	2 soils	
Date samples received / completed instructions received	11/02/15	/ 11/02/15

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:	18/02/15	/	13/02/15
Date of Preliminary Report:	Not Issued		

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Accredited for compliance with ISO/IEC 17025. **Tests not covered by NATA are denoted with *.**

Results Approved By:



Jacinta Hurst
Laboratory Manager

Asbestos ID - soils			
Our Reference:	UNITS	123370-1	123370-2
Your Reference	-----	QC03	QC04
Date Sampled	-----	07/02/2015	07/02/2015
Type of sample		Soil	Soil
Date analysed	-	13/02/2015	13/02/2015
Sample mass tested	g	607.24g	733.66g
Sample Description	-	Brown coarse-grain soil & rocks	Brown coarse-grain soil
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected
ACM>7mm Estimation*	g	--	--
ACM<7mm Estimation*	g	--	--
FA and AF Estimation*	g	--	--
Total Asbestos g/kg*	g/kg	<0.1	<0.1
ACM >7mm Estimation %(w/w)*	%	<0.01	<0.01
ACM <7mm Estimation %(w/w)*	%	<0.001	<0.001
FA and AF Estimation %(w/w)*	%	<0.001	<0.001
Total Asb Est w/w* Note [#]	%	<0.001	<0.001

Method ID	Methodology Summary
ASB-001	Asbestos ID - Identification of asbestos in soil samples using Polarised Light Microscopy and Dispersion Staining Techniques. Minimum 500mL soil sample was analysed as recommended by "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" with a reporting limit of 0.1g/kg (0.01% w/w) as per Australian Standard AS4964-2004. Results reported denoted with * are outside our scope of NATA accreditation. NOTE [#] The screening level of 0.001% w/w asbestos in soil for FA and AF only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres. Results reported with "--" is equivalent to no visible asbestos identified using Polarised Light Microscopy and Dispersion Staining Techniques.
ASB-001	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.

Report Comments:

This report is consistent with the reporting recommendations in the National Environment Protection (Assessment of Site Contamination) Measure, Schedule B1, May 2013.
This is reported outside our scope of NATA accreditation.

Asbestos ID was analysed by Approved Identifier: Paul Ching
Asbestos ID was authorised by Approved Signatory: Paul Ching

INS: Insufficient sample for this test
NA: Test not required
<: Less than

PQL: Practical Quantitation Limit
RPD: Relative Percent Difference
>: 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 batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

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.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.



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enquiries@envirolabservices.com.au
www.envirolabservices.com.au

SAMPLE RECEIPT ADVICE

Client:

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

ph: 02 8245 0300

Fax: 02 8245 0399

Attention: Mitch Hodgins

Sample log in details:

Your reference:	50369
Envirolab Reference:	123624
Date received:	16/2/2015
Date results expected to be reported:	23/02/15

Samples received in appropriate condition for analysis:	YES
No. of samples provided	2 Soils
Turnaround time requested:	Standard
Temperature on receipt (°C)	9.8
Cooling Method:	Ice Pack
Sampling Date Provided:	

Comments:

If there is sufficient sample after testing, samples will be held for the following time frames from date of receipt of samples:

Water samples - 1 month

Soil and other solid samples - 2 months

Samples collected in canisters - 1 week. Canisters will then be cleaned.

All other samples are not retained after analysis

If you require samples to be retained for longer periods then retention fees will apply as per our pricelist.

Contact details:

Please direct any queries to Aileen Hie or Jacinta Hurst

ph: 02 9910 6200 fax: 02 9910 6201

email: ahie@envirolabservices.com.au or jhurst@envirolabservices.com.au

JMSO Forms 013 - Chain of Custody - Generic

CERTIFICATE OF ANALYSIS

123624

Client:

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

Attention: Mitch Hodgins

Sample log in details:

Your Reference:	50369	
No. of samples:	2 Soils	
Date samples received / completed instructions received	16/2/2015	/ 16/2/2015

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:	23/02/15	/ 19/02/15
Date of Preliminary Report:	Not Issued	

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Accredited for compliance with ISO/IEC 17025. **Tests not covered by NATA are denoted with *.**

Results Approved By:



Jacinta Hurst
Laboratory Manager

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	123624-1 QA06 Soil	123624-2 QA05 Soil
Date analysed	-	19/02/2015	19/02/2015
Sample mass tested	g	548.06g	792.27g
Sample Description	-	Brown coarse grain soil & rocks	Grey coarse grain soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected
ACM>7mm Estimation*	g	--	--
ACM<7mm Estimation*	g	--	--
FA and AF Estimation*	g	0.0094	0.0079
Total Asbestos g/kg*	g/kg	0.02	0.01
ACM >7mm Estimation %(w/w)*	%	<0.01	<0.01
ACM <7mm Estimation %(w/w)*	%	<0.001	<0.001
FA and AF Estimation %(w/w)*	%	0.002	0.001
Total Asb Est w/w* Note [#]	%	0.002	0.001

Method ID	Methodology Summary
ASB-001	Asbestos ID - Identification of asbestos in soil samples using Polarised Light Microscopy and Dispersion Staining Techniques. Minimum 500mL soil sample was analysed as recommended by "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" with a reporting limit of 0.1g/kg (0.01% w/w) as per Australian Standard AS4964-2004. Results reported denoted with * are outside our scope of NATA accreditation. NOTE [#] The screening level of 0.001% w/w asbestos in soil for FA and AF only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres. Results reported with "--" is equivalent to no visible asbestos identified using Polarised Light Microscopy and Dispersion Staining Techniques.
ASB-001	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.

Report Comments:

This report is consistent with the reporting recommendations in the National Environment Protection (Assessment of Site Contamination) Measure, Schedule B1, May 2013.
This is reported outside our scope of NATA accreditation.

Sample 123624-1; Loose fibre bundles of chrysotile asbestos identified within the sample (total weight 0.0094g). In 548.06g of soil this calculates to 0.02g/kg, which is less than the reporting limit for the method (i.e. < 0.1g/kg).

Sample 123624-2; Loose fibre bundles of chrysotile, amosite and crocidolite asbestos identified within the sample (total weight 0.0079g). In 792.27g of soil this calculates to 0.01g/kg, which is less than the reporting limit for the method (i.e. < 0.1g/kg).

Asbestos ID was analysed by Approved Identifier:	Paul Ching
Asbestos ID was authorised by Approved Signatory:	Paul Ching

INS: Insufficient sample for this test

NA: Test not required

<: Less than

PQL: Practical Quantitation Limit

RPD: Relative Percent Difference

>: 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 batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

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.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.



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

SAMPLE RECEIPT ADVICE

Client:

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

ph: 02 8245 0300

Fax: 02 8245 0399

Attention: M Hodgins

Sample log in details:

Your reference:	50369
Envirolab Reference:	127439
Date received:	05/05/15
Date results expected to be reported:	7/05/15

Samples received in appropriate condition for analysis:	YES
No. of samples provided	8 Soils
Turnaround time requested:	48hr
Temperature on receipt (°C)	17.4
Cooling Method:	Ice Pack
Sampling Date Provided:	YES

Comments:

If there is sufficient sample after testing, samples will be held for the following time frames from date of receipt of samples:

Water samples - 1 month

Soil and other solid samples - 2 months

Samples collected in canisters - 1 week. Canisters will then be cleaned.

All other samples are not retained after analysis

If you require samples to be retained for longer periods then retention fees will apply as per our pricelist.

Contact details:

Please direct any queries to Aileen Hie or Jacinta Hurst

ph: 02 9910 6200 fax: 02 9910 6201

email: ahie@envirolabservices.com.au or jhurst@envirolabservices.com.au



PROJECT NO.: 50369		LABORATORY BATCH NO.: MMJ00097	
PROJECT NAME: 50369- VLR		SAMPLERS: MMJ00097	
SEND REPORT TO: MITOGENS		PHONE: SYDNEY 02 B245 0300 - PERTH 08 9488 0100 EMAIL: M.H.202@NCSJB56.COM	
DATE NEEDED BY: 7/2 Nov 1997		QC LEVEL: NEPM (2013)	
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:			

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH
QCA017	sol	2/5		BAG	
QCA 21 Aa		2/5	29/10		
QCA 21 Ab		2/5	29/10		
QCA 21 AC		2/5	30/10		
QCA 21		2/5			
QCA 17		1/5			
QCA 18		2/5			
QCA 20		2/5			

REQUISITIONED BY: [Signature]		METHOD OF SHIPMENT:	
NAME: [Signature]	DATE: 4/3/15	CONSIGNMENT NOTE NO.	
OF: IBS&G	DATE:	TRANSPORT CO.	
NAME:	DATE:	CONSIGNMENT NOTE NO.	
OF:		TRANSPORT CO.	

RECEIVED BY: [Signature]		NAME: [Signature]	
DATE: 5/3/15		DATE:	
OF: [Signature]		NAME: [Signature]	
DATE:		DATE:	

FOR RECEIVING LAB USE ONLY:	
CODER SEAL - Yes	No
CODER SEAL - Yes	No
CODER SEAL - Yes	No
CODER SEAL - Yes	No

RECEIVED BY: [Signature]		NAME: [Signature]	
DATE: 5/3/15		DATE:	
OF: [Signature]		NAME: [Signature]	
DATE:		DATE:	

CERTIFICATE OF ANALYSIS

127439

Client:

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

Attention: M Hodgins

Sample log in details:

Your Reference:	50369
No. of samples:	8 Soils
Date samples received / completed instructions received	05/05/15 / 05/05/15

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:	7/05/15 / 7/05/15
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:



Jacinta Hurst
Laboratory Manager

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	127439-1 QCA019 Soil	127439-2 QCAAA Soil	127439-3 QCAAB Soil	127439-4 QCAAC Soil	127439-5 QCA24 Soil
Date analysed	-	7/05/2015	7/05/2015	7/05/2015	7/05/2015	7/05/2015
Sample mass tested	g	523.13g	854.77g	832.51g	539.06g	572.06g
Sample Description	-	Brown, clay soils & rocks	Brown, clay soils & rocks	Brown, clay soils & rocks	Brown, clay soils & rocks	Brown, clay soils & rocks
Asbestos ID in soil	-	Chrysotile asbestos detected Amosite asbestos detected Crocidolite asbestos detected Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Synthetic mineral fibre detected Unknown mineral fibre detected Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Chrysotile asbestos detected Organic fibres detected	Chrysotile asbestos detected Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg No asbestos detected at reporting limit of 0.1g/k Organic fibres detected
Trace Analysis	-	Trace asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
ACM>7mm Estimation*	g	4.2075	--	--	--	--
ACM<7mm Estimation*	g	0.6972	--	--	--	--
FA and AF Estimation*	g	1.3448	0.0176	0.0048	0.0788	--
Total Asbestos g/kg*	g/kg	11.94	0.02	0.01	0.15	<0.1
ACM >7mm Estimation %(w/w)*	%	0.804	<0.01	<0.01	<0.01	<0.01
ACM <7mm Estimation %(w/w)*	%	0.133	<0.001	<0.001	<0.001	<0.001
FA and AF Estimation %(w/w)*	%	0.257	0.002	0.001	0.015	<0.001
Total Asb Est w/w* Note [#]	%	1.194	0.002	0.001	0.015	<0.001

Method ID	Methodology Summary
ASB-001	Asbestos ID - Identification of asbestos in soil samples using Polarised Light Microscopy and Dispersion Staining Techniques. Minimum 500mL soil sample was analysed as recommended by "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" with a reporting limit of 0.1g/kg (0.01% w/w) as per Australian Standard AS4964-2004. Results reported denoted with * are outside our scope of NATA accreditation. NOTE [#] The screening level of 0.001% w/w asbestos in soil for FA and AF only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres. Results reported with "--" is equivalent to no visible asbestos identified using Polarised Light Microscopy and Dispersion Staining Techniques.
ASB-001	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.

Report Comments:

This report is consistent with the reporting recommendations in the National Environment Protection (Assessment of Site Contamination) Measure, Schedule B1, May 2013.
This is reported outside our scope of NATA accreditation.

Sample 127439-1; Chrysotile, Amosite & Crocidolite asbestos identified embedded in several fragments of fibre cement, matted material and loose fibre bundles (total weight 32.055g). Which in 523.13g of soil is 11.94g/kg (i.e. > reporting limit for the method of 0.1g/kg).
Samples 127439-1; Trace analysis performed with >5 and < 20 unequivocal asbestos fibres.
Trace asbestos detected.

Sample 127439-2; Mineral fibres of unknown type identified in matted material (total weight 0.1761g). Which in 854.77g of soil is 0.02g/kg (i.e. < reporting limit for the method of 0.1g/kg).
Note, Mineral fibres of unknown type detected. Confirmation by another independent analytical technique may be required.

Sample 127439-3; Chrysotile asbestos identified in matted material (total weight 0.0318g). Which in 832.51g of soil is 0.01g/kg (i.e. < reporting limit for the method of 0.1g/kg).

Sample 127439-4; Chrysotile asbestos identified in matted material (total weight 0.788g). Which in 539.06g of soil is 0.15g/kg (i.e. > reporting limit for the method of 0.1g/kg).

Asbestos ID was analysed by Approved Identifier:	Paul Ching
Asbestos ID was authorised by Approved Signatory:	Paul Ching

INS: Insufficient sample for this test
NA: Test not required
<: Less than

PQL: Practical Quantitation Limit
RPD: Relative Percent Difference
>: 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 batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

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 (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Appendix C: Air Monitoring Results

JBS&G (50369-60826)

28 January 2015

Health Infrastructure NSW

c/- Frank Princi

Appian

Via email: frank.princi@appiangroup.com.au

AMR24 - Daily Airborne Asbestos Fibre Monitoring
Westmead Hospital Redevelopment, Hawkesbury Rd, Westmead, NSW

Dear Frank,

Please find as **Attachment 1** the daily airborne asbestos fibre monitoring report for works completed at the Westmead Hospital of Site Project on **27 January 2015**.

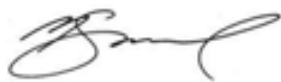
All air monitoring was completed in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003(2005)], with NATA certification applying to all sample collection, handling and analytical procedures.

All reported results were satisfactory and below the minimum action levels for control monitoring as outlined in:

- Work, Health and Safety (2011) Regulation; and
- WorkCover Authority of NSW (2011) Code of Practice – *How to Safely Remove Asbestos*.

If you have any questions regarding these results, please feel free to contact the undersigned on 02 8245 0300 or by email msamuel@jbsg.com.au.

Yours sincerely



Michael Samuel
Licensed Asbestos Assessor (LAA 000157)
JBS&G Australia Pty Ltd

Attachments: 1) Daily Air Monitoring Locations Map
 2) Daily Airborne Asbestos Fibre Monitoring Report

Attachment 1 – Daily Air Monitoring Locations Map



Legend:

-  Air Monitoring Location
-  Health Infrastructure Principal Contractor Site Extent
- Health Infrastructure Principal Contractor Site Areas**
 -  AREA A - Westmead Early Works
 -  AREA B - Westmead Carparking
 -  AREA C - Westmead Pathology Building
 -  Western Sydney Health District Principal Contractor Site Extent



Job No: 50369

Client: Health Infrastructure

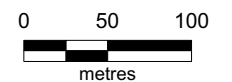
Version: R01 Rev A

Date: 27-12-2015

Drawn By: RF

Checked By: MH

Scale 1:4,500



Coor. Sys. GDA 1994 MGA Zone 56

**Health Infrastructure -
Westmead Hospital Early
Works Consultant**

AIR MONITORING LOCATIONS

FIGURE 1

Attachment 2 – Daily Airborne Asbestos Fibre Monitoring Report

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: Michael Samuel
Report 445447-AFC
Project Name WESTMEAD 50369
Received Date Jan 27, 2015
Date Reported Jan 27, 2015

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Mini Buck Model M-5: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name WESTMEAD 50369
Project ID
Date Sampled Jan 27, 2015
Report 445447-AFC

Eurofins mgt Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Result (Fibres/mL)
15-Ja12989	19483	SKC 007 117	COOLING TOWER AREA NORTH BOUNDARY	7:36	12:51	1.5	1.5	1.5	< 0.01
15-Ja12990	19502	SKC 138	COOLING TOWER AREA SOUTH BOUNDARY	7:39	12:54	1.5	1.5	1.5	< 0.01
15-Ja12991	19482	SKC 211	COOLING TOWER AREA EAST BOUNDARY	7:42	12:57	1.5	1.5	1.5	< 0.01
15-Ja12992	19639	SKC 218	COOLING TOWER AREA WEST BOUNDARY	7:45	13:00	1.5	1.5	1.5	< 0.01
15-Ja12993	19637	SKC 517	COOLING TOWER AREA SW BOUNDARY	7:48	13:03	1.5	1.5	1.5	< 0.01
15-Ja12994	19515	BLANK	BLANK			--	--	--	0 fibres / 100 field

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8010	Sydney	Jan 27, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WESTMEAD 50369

Order No.:
Report #: 445447
Phone: 02 8245 0300
Fax:

Received: Jan 27, 2015 1:19 PM
Due: Jan 27, 2015
Priority: Same day
Contact Name: Michael Samuel

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos (concentration of fibres in air)
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
19483	Jan 27, 2015	12:51PM	Air	S15-Ja12989	X
19502	Jan 27, 2015	12:54PM	Air	S15-Ja12990	X
19482	Jan 27, 2015	12:57PM	Air	S15-Ja12991	X
19639	Jan 27, 2015	1:00PM	Air	S15-Ja12992	X
19637	Jan 27, 2015	1:03PM	Air	S15-Ja12993	X
19515	Jan 27, 2015		Air	S15-Ja12994	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Volume Measurement : MOB, JBS & G Australia (NSW & WA) P/L, has been trained by Eurofins | mgt and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] methodology. Sampling pumps used by JBS & G Australia (NSW & WA) P/L were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson

National 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

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

JBS&G (50369-60845)

29 January 2015

Health Infrastructure NSW

c/- Frank Princi

Appian

Via email: frank.princi@appiangroup.com.au

AMR25 - Daily Airborne Asbestos Fibre Monitoring
Westmead Hospital Redevelopment, Hawkesbury Rd, Westmead, NSW

Dear Frank,

Please find as **Attachment 1** the daily airborne asbestos fibre monitoring report for works completed at the Westmead Hospital of Site Project on **28 January 2015**.

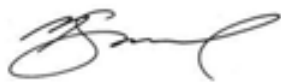
All air monitoring was completed in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003(2005)], with NATA certification applying to all sample collection, handling and analytical procedures.

All reported results were satisfactory and below the minimum action levels for control monitoring as outlined in:

- Work, Health and Safety (2011) Regulation; and
- WorkCover Authority of NSW (2011) Code of Practice – *How to Safely Remove Asbestos*.

If you have any questions regarding these results, please feel free to contact the undersigned on 02 8245 0300 or by email msamuel@jbsg.com.au.

Yours sincerely



Michael Samuel
Licensed Asbestos Assessor (LAA 000157)
JBS&G Australia Pty Ltd

Attachments: 1) Daily Air Monitoring Locations Map
 2) Daily Airborne Asbestos Fibre Monitoring Report

Attachment 1 – Daily Air Monitoring Locations Map



Legend:

- Air Monitoring Location
- Health Infrastructure Principal Contractor Site Extent
- Health Infrastructure Principal Contractor Site Areas**
 - AREA A - Westmead Early Works
 - AREA B - Westmead Carparking
 - AREA C - Westmead Pathology Building
- Western Sydney Health District Principal Contractor Site Extent



Job No: 50369

Client: Health Infrastructure

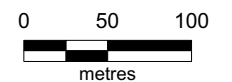
Version: R01 Rev A

Date: 28-Jan-2015

Drawn By: RF

Checked By: MH

Scale 1:4,500



Coor. Sys. GDA 1994 MGA Zone 56

**Health Infrastructure -
Westmead Hospital Early
Works Consultant**

AIR MONITORING LOCATIONS

FIGURE 1

Attachment 2 – Daily Airborne Asbestos Fibre Monitoring Report

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: Michael Samuel
Report 445567-AFC
Project Name WESTMEAD 50369
Received Date Jan 28, 2015
Date Reported Jan 28, 2015

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Mini Buck Model M-5: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name WESTMEAD 50369
Project ID
Date Sampled Jan 28, 2015
Report 445567-AFC

Eurofins mgt Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Result (Fibres/mL)
15-Ja13776	19583	SKC 007 117	NORTH BOUNDARY OF WORKS COOLING TOWER AREA	7:30	12:25	1.5	1.5	1.5	< 0.01
15-Ja13777	19497	SKC 211	SOUTH BOUNDARY OF WORKS COOLING TOWER AREA	7:33	12:28	1.5	1.5	1.5	< 0.01
15-Ja13778	19500	SKC 138	EAST BOUNDARY OF WORKS COOLING TOWER AREA	7:36	12:31	1.5	1.5	1.5	< 0.01
15-Ja13779	19501	SKC 517	WEST BOUNDARY OF WORKS COOLING TOWER AREA	7:39	12:34	1.5	1.5	1.5	< 0.01
15-Ja13780	19728	SKC 218	NW BOUNDARY OF WORKS COOLING TOWER AREA	7:42	12:37	1.5	1.5	1.5	< 0.01
15-Ja13781	19533	BLANK	BLANK			--	--	--	0 fibres / 100 field

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8010	Sydney	Jan 28, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WESTMEAD 50369

Order No.:
Report #: 445567
Phone: 02 8245 0300
Fax:

Received: Jan 28, 2015 12:56 PM
Due: Jan 28, 2015
Priority: Same day
Contact Name: Michael Samuel

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos (concentration of fibres in air)
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
19583	Jan 28, 2015	12:25PM	Air	S15-Ja13776	X
19497	Jan 28, 2015	12:28PM	Air	S15-Ja13777	X
19500	Jan 28, 2015	12:31PM	Air	S15-Ja13778	X
19501	Jan 28, 2015	12:34PM	Air	S15-Ja13779	X
19728	Jan 28, 2015	12:37PM	Air	S15-Ja13780	X
19533	Jan 28, 2015		Air	S15-Ja13781	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Volume Measurement : MATT O'BRIEN, JBS & G Australia (NSW & WA) P/L, has been trained by Eurofins | mgt and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] methodology. Sampling pumps used by JBS & G Australia (NSW & WA) P/L were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson

National 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

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

JBS&G (50369-60853)

30 January 2015

Health Infrastructure NSW

c/- Frank Princi

Appian

Via email: frank.princi@appiangroup.com.au

AMR26 - Daily Airborne Asbestos Fibre Monitoring
Westmead Hospital Redevelopment, Hawkesbury Rd, Westmead, NSW

Dear Frank,

Please find as **Attachment 1** the daily airborne asbestos fibre monitoring report for works completed at the Westmead Hospital of Site Project on **29 January 2015**.

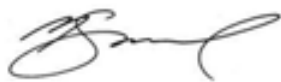
All air monitoring was completed in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003(2005)], with NATA certification applying to all sample collection, handling and analytical procedures.

All reported results were satisfactory and below the minimum action levels for control monitoring as outlined in:

- Work, Health and Safety (2011) Regulation; and
- WorkCover Authority of NSW (2011) Code of Practice – *How to Safely Remove Asbestos*.

If you have any questions regarding these results, please feel free to contact the undersigned on 02 8245 0300 or by email msamuel@jbsg.com.au.

Yours sincerely



Michael Samuel
Licensed Asbestos Assessor (LAA 000157)
JBS&G Australia Pty Ltd

Attachments: 1) Daily Air Monitoring Locations Map
 2) Daily Airborne Asbestos Fibre Monitoring Report

Attachment 1 – Daily Air Monitoring Locations Map



Legend:

-  Air Monitoring Location
-  Health Infrastructure Principal Contractor Site Extent
- Health Infrastructure Principal Contractor Site Areas**
 -  AREA A - Westmead Early Works
 -  AREA B - Westmead Carparking
 -  AREA C - Westmead Pathology Building
 -  Western Sydney Health District Principal Contractor Site Extent



Job No: 50369

Client: Health Infrastructure

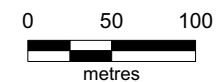
Version: R01 Rev A

Date: 29-Jan-2015

Drawn By: RF

Checked By: MH

Scale 1:4,500



Coor. Sys. GDA 1994 MGA Zone 56

**Health Infrastructure -
Westmead Hospital Early
Works Consultant**

AIR MONITORING LOCATIONS

FIGURE 1

Attachment 2 – Daily Airborne Asbestos Fibre Monitoring Report

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: Michael Samuel
Report 445720-AFC
Project Name WESTMEAD 50369
Received Date Jan 29, 2015
Date Reported Jan 29, 2015

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Mini Buck Model M-5: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name WESTMEAD 50369
Project ID
Date Sampled Jan 29, 2015
Report 445720-AFC

Eurofins mgt Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Result (Fibres/mL)
15-Ja14587	15081	SKC 003	COOLING TOWER AREA NORTH BOUNDARY OF WORKS	7:21	13:51	1.2	1.2	1.2	< 0.01
15-Ja14588	15465	SKC 142	COOLING TOWER AREA SOUTH BOUNDARY	7:24	13:54	1.2	1.2	1.2	< 0.01
15-Ja14589	15393	SKC 144	COOLING TOWER AREA EAST BOUNDARY	7:27	13:57	1.2	1.2	1.2	< 0.01
15-Ja14590	15054	SKC 211	COOLING TOWER AREA WEST BOUNDARY	7:30	14:00	1.2	1.2	1.2	< 0.01
15-Ja14591	15152	SKC 220	COOLING TOWER AREA NW BOUNDARY	7:33	14:03	1.2	1.2	1.2	< 0.01
15-Ja14592	15261	BLANK	BLANK			--	--	--	0 fibres / 100 field

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8010	Sydney	Jan 29, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WESTMEAD 50369

Order No.:
Report #: 445720
Phone: 02 8245 0300
Fax:

Received: Jan 29, 2015 1:51 PM
Due: Jan 29, 2015
Priority: Same day
Contact Name: Michael Samuel

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos (concentration of fibres in air)
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
15081	Jan 29, 2015	1:51PM	Air	S15-Ja14587	X
15465	Jan 29, 2015	1:54PM	Air	S15-Ja14588	X
15393	Jan 29, 2015	1:57PM	Air	S15-Ja14589	X
15054	Jan 29, 2015	2:00PM	Air	S15-Ja14590	X
15152	Jan 29, 2015	2:03PM	Air	S15-Ja14591	X
15261	Jan 29, 2015		Air	S15-Ja14592	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Volume Measurement : MOB, JBS & G Australia (NSW & WA) P/L, has been trained by Eurofins | mgt and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] methodology. Sampling pumps used by JBS & G Australia (NSW & WA) P/L were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson

National 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

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

JBS&G (50369-60871)

02 February 2015

Health Infrastructure NSW

c/- Frank Princi

Appian

Via email: frank.princi@appiangroup.com.au

AMR27 - Daily Airborne Asbestos Fibre Monitoring
Westmead Hospital Redevelopment, Hawkesbury Rd, Westmead, NSW

Dear Frank,

Please find as **Attachment 1** the daily airborne asbestos fibre monitoring report for works completed at the Westmead Hospital of Site Project on **30 January 2015**.

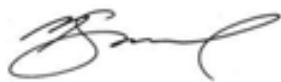
All air monitoring was completed in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003(2005)], with NATA certification applying to all sample collection, handling and analytical procedures.

All reported results were satisfactory and below the minimum action levels for control monitoring as outlined in:

- Work, Health and Safety (2011) Regulation; and
- WorkCover Authority of NSW (2011) Code of Practice – *How to Safely Remove Asbestos*.

If you have any questions regarding these results, please feel free to contact the undersigned on 02 8245 0300 or by email msamuel@jbsg.com.au.

Yours sincerely



Michael Samuel
Licensed Asbestos Assessor (LAA 000157)
JBS&G Australia Pty Ltd

Attachments: 1) Daily Air Monitoring Locations Map
 2) Daily Airborne Asbestos Fibre Monitoring Report

Attachment 1 – Daily Air Monitoring Locations Map



Legend:

-  Air Monitoring Location
-  Health Infrastructure Principal Contractor Site Extent
- Health Infrastructure Principal Contractor Site Areas**
 -  AREA A - Westmead Early Works
 -  AREA B - Westmead Carparking
 -  AREA C - Westmead Pathology Building
 -  Western Sydney Health District Principal Contractor Site Extent



Job No: 50369

Client: Health Infrastructure

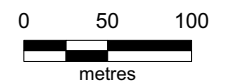
Version: R01 Rev A

Date: 30-Jan-2015

Drawn By: RF

Checked By: MH

Scale 1:4,500



Coor. Sys. GDA 1994 MGA Zone 56

**Health Infrastructure -
Westmead Hospital Early
Works Consultant**

AIR MONITORING LOCATIONS

FIGURE 1

Attachment 2 – Daily Airborne Asbestos Fibre Monitoring Report

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: Michael Samuel
Report 445873-AFC
Project Name WESTMEAD 50369
Received Date Jan 30, 2015
Date Reported Jan 30, 2015

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Mini Buck Model M-5: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name WESTMEAD 50369
Project ID
Date Sampled Jan 30, 2015
Report 445873-AFC

Eurofins mgt Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Result (Fibres/mL)
15-Ja15501	15077	SKC 003	NORTH EAST BOUNDARY OF WSLHD BUILDING AREA	7:03	13:21	1.5	1.5	1.5	< 0.01
15-Ja15502	15070	SKC 138	NORTH WEST BOUNDARY OF WSLHD BUILDING AREA	7:06	13:24	1.5	1.5	1.5	< 0.01
15-Ja15503	15488	SKC 211	WEST BOUNDARY OF WSLHD BUILDING AREA	7:09	13:27	1.5	1.5	1.5	< 0.01
15-Ja15504	15066	SKC 220	SW BOUNDARY OF WSLHD BUILDING AREA	7:12	13:30	1.5	1.5	1.5	< 0.01
15-Ja15505	15089	SKC 517	SOUTH BOUNDARY OF WSLHD BUILDING AREA	7:15	13:33	1.5	1.5	1.5	< 0.01
15-Ja15506	15443	BLANK	BLANK			--	--	--	0 fibres / 100 field

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8010	Sydney	Jan 30, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WESTMEAD 50369

Order No.:
Report #: 445873
Phone: 02 8245 0300
Fax:

Received: Jan 30, 2015 1:55 PM
Due: Jan 30, 2015
Priority: Same day
Contact Name: Michael Samuel

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos (concentration of fibres in air)
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
15077	Jan 30, 2015	1:21PM	Air	S15-Ja15501	X
15070	Jan 30, 2015	1:24PM	Air	S15-Ja15502	X
15488	Jan 30, 2015	1:27PM	Air	S15-Ja15503	X
15066	Jan 30, 2015	1:30PM	Air	S15-Ja15504	X
15089	Jan 30, 2015	1:33PM	Air	S15-Ja15505	X
15443	Jan 30, 2015		Air	S15-Ja15506	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Volume Measurement : MATT O'BRIEN, JBS & G Australia (NSW & WA) P/L, has been trained by Eurofins | mgt and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] methodology. Sampling pumps used by JBS & G Australia (NSW & WA) P/L were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson

National 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

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

JBS&G (50369-60885)

03 February 2015

Health Infrastructure NSW

c/- Frank Princi

Appian

Via email: frank.princi@appiangroup.com.au

AMR28 - Daily Airborne Asbestos Fibre Monitoring
Westmead Hospital Redevelopment, Hawkesbury Rd, Westmead, NSW

Dear Frank,

Please find as **Attachment 1** the daily airborne asbestos fibre monitoring report for works completed at the Westmead Hospital of Site Project on **31 January 2015**.

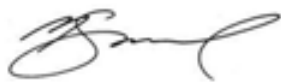
All air monitoring was completed in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003(2005)], with NATA certification applying to all sample collection, handling and analytical procedures.

All reported results were satisfactory and below the minimum action levels for control monitoring as outlined in:

- Work, Health and Safety (2011) Regulation; and
- WorkCover Authority of NSW (2011) Code of Practice – *How to Safely Remove Asbestos*.

If you have any questions regarding these results, please feel free to contact the undersigned on 02 8245 0300 or by email msamuel@jbsg.com.au.

Yours sincerely



Michael Samuel
Licensed Asbestos Assessor (LAA 000157)
JBS&G Australia Pty Ltd

Attachments: 1) Daily Air Monitoring Locations Map
 2) Daily Airborne Asbestos Fibre Monitoring Report

Attachment 1 – Daily Air Monitoring Locations Map



Legend:

-  Air Monitoring Location
-  Health Infrastructure Principal Contractor Site Extent
- Health Infrastructure Principal Contractor Site Areas**
 -  AREA A - Westmead Early Works
 -  AREA B - Westmead Carparking
 -  AREA C - Westmead Pathology Building
 -  Western Sydney Health District Principal Contractor Site Extent



Job No: 50369

Client: Health Infrastructure

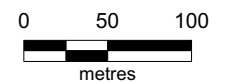
Version: R01 Rev A

Date: 31-Jan-2015

Drawn By: RF

Checked By: MH

Scale 1:4,500



Coor. Sys. GDA 1994 MGA Zone 56

**Health Infrastructure -
Westmead Hospital Early
Works Consultant**

AIR MONITORING LOCATIONS

FIGURE 1

Attachment 2 – Daily Airborne Asbestos Fibre Monitoring Report

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: Michael Samuel
Report 446002-AFC
Project Name WESTMEAD 50369
Received Date Feb 02, 2015
Date Reported Feb 02, 2015

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Mini Buck Model M-5: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name WESTMEAD 50369
Project ID
Date Sampled Jan 31, 2015
Report 446002-AFC

Eurofins mgt Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Result (Fibres/mL)
15-Fe00500	15030	SKC 007 117	NORTH PORTION OF CASUARINA & REDBANK CARPARK	6:30	12:05	1.5	1.5	1.5	< 0.01
15-Fe00501	15420	SKC 211	NORTH EAST PORTION OF CASUARINA & REDBANK CARPARK	6:33	12:08	1.5	1.5	1.5	< 0.01
15-Fe00502	15017	SKC 220	SOUTH PORTION OF CASUARINA & REDBANK CARPARK	6:36	12:11	1.5	1.5	1.5	< 0.01
15-Fe00503	15354	SKC 223	EAST PORTION OF CASUARINA & REDBANK CARPARK	6:39	12:14	1.5	1.5	1.5	< 0.01
15-Fe00504	15002	SKC 517	WEST PORTION OF CASUARINA & REDBANK CARPARK	6:42	12:17	1.5	1.5	1.5	< 0.01
15-Fe00505	15012	BLANK	BLANK			--	--	--	0 fibres / 100 field

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8010	Sydney	Feb 02, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WESTMEAD 50369

Order No.:
Report #: 446002
Phone: 02 8245 0300
Fax:

Received: Feb 2, 2015 2:14 PM
Due: Feb 2, 2015
Priority: Same day
Contact Name: Michael Samuel

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos (concentration of fibres in air)
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
15030	Jan 31, 2015	12:05PM	Air	S15-Fe00500	X
15420	Jan 31, 2015	12:08PM	Air	S15-Fe00501	X
15017	Jan 31, 2015	12:11PM	Air	S15-Fe00502	X
15354	Jan 31, 2015	12:14PM	Air	S15-Fe00503	X
15002	Jan 31, 2015	12:17PM	Air	S15-Fe00504	X
15012	Jan 31, 2015		Air	S15-Fe00505	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Volume Measurement : MOB, JBS & G Australia (NSW & WA) P/L, has been trained by Eurofins | mgt and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] methodology. Sampling pumps used by JBS & G Australia (NSW & WA) P/L were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson

National 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

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

JBS&G (50369-60886)

03 February 2015

Health Infrastructure NSW

c/- Frank Princi

Appian

Via email: frank.princi@appiangroup.com.au

AMR29 - Daily Airborne Asbestos Fibre Monitoring
Westmead Hospital Redevelopment, Hawkesbury Rd, Westmead, NSW

Dear Frank,

Please find as **Attachment 1** the daily airborne asbestos fibre monitoring report for works completed at the Westmead Hospital of Site Project on **02 February 2015**.

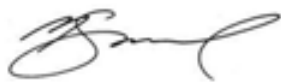
All air monitoring was completed in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003(2005)], with NATA certification applying to all sample collection, handling and analytical procedures.

All reported results were satisfactory and below the minimum action levels for control monitoring as outlined in:

- Work, Health and Safety (2011) Regulation; and
- WorkCover Authority of NSW (2011) Code of Practice – *How to Safely Remove Asbestos*.

If you have any questions regarding these results, please feel free to contact the undersigned on 02 8245 0300 or by email msamuel@jbsg.com.au.

Yours sincerely



Michael Samuel
Licensed Asbestos Assessor (LAA 000157)
JBS&G Australia Pty Ltd

Attachments: 1) Daily Air Monitoring Locations Map
 2) Daily Airborne Asbestos Fibre Monitoring Report

Attachment 1 – Daily Air Monitoring Locations Map



Legend:

-  Air Monitoring Location
-  Health Infrastructure Principal Contractor Site Extent
- Health Infrastructure Principal Contractor Site Areas**
 -  AREA A - Westmead Early Works
 -  AREA B - Westmead Carparking
 -  AREA C - Westmead Pathology Building
 -  Western Sydney Health District Principal Contractor Site Extent



Job No: 50369

Client: Health Infrastructure

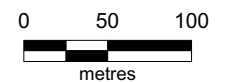
Version: R01 Rev A

Date: 02-Feb-2015

Drawn By: RF

Checked By: MH

Scale 1:4,500



Coor. Sys. GDA 1994 MGA Zone 56

**Health Infrastructure -
Westmead Hospital Early
Works Consultant**

AIR MONITORING LOCATIONS

FIGURE 1

Attachment 2 – Daily Airborne Asbestos Fibre Monitoring Report

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: Michael Samuel
Report 446008-AFC
Project Name WESTMEAD 50369
Received Date Feb 02, 2015
Date Reported Feb 02, 2015

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Mini Buck Model M-5: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name WESTMEAD 50369
Project ID
Date Sampled Feb 02, 2015
Report 446008-AFC

Eurofins mgt Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Result (Fibres/mL)
15-Fe00532	15028	SKC 007 117	EAST PORTION OF ADHC SITE WEST ALONG INSTITUTE RD	6:50	13:10	1.5	1.5	1.5	< 0.01
15-Fe00533	15010	SKC 211	EAST PORTION OF ADHC SITE EAST ALONG INSTITUTE RD	6:53	13:13	1.5	1.5	1.5	< 0.01
15-Fe00534	15026	SKC 220	EAST PORTION OF ADHC SITE SE PORTION ADJ CARPARK	6:56	13:16	1.5	1.5	1.5	< 0.01
15-Fe00535	15100	SKC 223	EAST PORTION OF ADHC SITE NE PORTION ADJ CARPARK	6:59	13:19	1.5	1.5	1.5	< 0.01
15-Fe00536	15396	SKC 478	EAST PORTION OF ADHC SITE CENTRAL TO SITE WORKS	7:02	13:22	1.5	1.5	1.5	< 0.01
15-Fe00537	15042	BLANK	BLANK			--	--	--	0 fibres / 100 field

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8010	Sydney	Feb 02, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WESTMEAD 50369

Order No.:
Report #: 446008
Phone: 02 8245 0300
Fax:

Received: Feb 2, 2015 2:14 PM
Due: Feb 2, 2015
Priority: Same day
Contact Name: Michael Samuel

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos (concentration of fibres in air)
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
15028	Feb 02, 2015	1:10PM	Air	S15-Fe00532	X
15010	Feb 02, 2015	1:13PM	Air	S15-Fe00533	X
15026	Feb 02, 2015	1:16PM	Air	S15-Fe00534	X
15100	Feb 02, 2015	1:19PM	Air	S15-Fe00535	X
15396	Feb 02, 2015	1:22PM	Air	S15-Fe00536	X
15042	Feb 02, 2015		Air	S15-Fe00537	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Volume Measurement : MOB, JBS & G Australia (NSW & WA) P/L, has been trained by Eurofins | mgt and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] methodology. Sampling pumps used by JBS & G Australia (NSW & WA) P/L were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson

National 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

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

JBS&G (50369-60901)

04 February 2015

Health Infrastructure NSW

c/- Frank Princi

Appian

Via email: frank.princi@appiangroup.com.au

AMR30 - Daily Airborne Asbestos Fibre Monitoring
Westmead Hospital Redevelopment, Hawkesbury Rd, Westmead, NSW

Dear Frank,

Please find as **Attachment 1** the daily airborne asbestos fibre monitoring report for works completed at the Westmead Hospital of Site Project on **03 February 2015**.

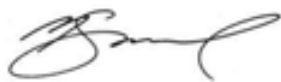
All air monitoring was completed in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003(2005)], with NATA certification applying to all sample collection, handling and analytical procedures.

All reported results were satisfactory and below the minimum action levels for control monitoring as outlined in:

- Work, Health and Safety (2011) Regulation; and
- WorkCover Authority of NSW (2011) Code of Practice – *How to Safely Remove Asbestos*.

If you have any questions regarding these results, please feel free to contact the undersigned on 02 8245 0300 or by email msamuel@jbsg.com.au.

Yours sincerely



Michael Samuel
Licensed Asbestos Assessor (LAA 000157)
JBS&G Australia Pty Ltd

Attachments: 1) Daily Air Monitoring Locations Map
 2) Daily Airborne Asbestos Fibre Monitoring Report

Attachment 1 – Daily Air Monitoring Locations Map



Legend:

-  Air Monitoring Location
-  Health Infrastructure Principal Contractor Site Extent
- Health Infrastructure Principal Contractor Site Areas**
 -  AREA A - Westmead Early Works
 -  AREA B - Westmead Carparking
 -  AREA C - Westmead Pathology Building
 -  Western Sydney Health District Principal Contractor Site Extent



Job No: 50369

Client: Health Infrastructure

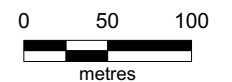
Version: R01 Rev A

Date: 03-Feb-2015

Drawn By: RF

Checked By: MH

Scale 1:4,500



Coor. Sys. GDA 1994 MGA Zone 56

**Health Infrastructure -
Westmead Hospital Early
Works Consultant**

AIR MONITORING LOCATIONS

FIGURE 1

Attachment 2 – Daily Airborne Asbestos Fibre Monitoring Report

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: Michael Samuel
Report 446168-AFC
Project Name WESTMEAD 50369
Received Date Feb 03, 2015
Date Reported Feb 03, 2015

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Mini Buck Model M-5: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name WESTMEAD 50369
Project ID
Date Sampled Feb 03, 2015
Report 446168-AFC

Eurofins mgt Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Result (Fibres/mL)
15-Fe01351	14894	SKC 003	CENTRAL PORTION OF ADHC NORTH OF WORKS AREA	7:16	13:26	1.5	1.5	1.5	< 0.01
15-Fe01352	14896	SKC 220	CENTRAL PORTION OF ADHC SOUTH WEST OF WORKS AREA	7:19	13:30	1.5	1.5	1.5	< 0.01
15-Fe01353	14943	SKC 221	CENTRAL PORTION OF ADHC SOUTH EAST OF WORKS AREA	7:22	13:33	1.5	1.5	1.5	< 0.01
15-Fe01354	14908	SKC 478	CENTRAL PORTION OF ADHC EAST OF WORKS AREA	7:25	13:36	1.5	1.5	1.5	< 0.01
15-Fe01355	14897	SKC 517	CENTRAL PORTION OF ADHC WEST OF WORKS AREA	7:28	13:39	1.5	1.5	1.5	< 0.01
15-Fe01356	11947	BLANK	BLANK			--	--	--	0 fibres / 100 field

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8010	Sydney	Feb 03, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WESTMEAD 50369

Order No.:
Report #: 446168
Phone: 02 8245 0300
Fax:

Received: Feb 3, 2015 1:50 PM
Due: Feb 3, 2015
Priority: Same day
Contact Name: Michael Samuel

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos (concentration of fibres in air)
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
14894	Feb 03, 2015	1:26PM	Air	S15-Fe01351	X
14896	Feb 03, 2015	1:30PM	Air	S15-Fe01352	X
14943	Feb 03, 2015	1:33PM	Air	S15-Fe01353	X
14908	Feb 03, 2015	1:36PM	Air	S15-Fe01354	X
14897	Feb 03, 2015	1:39PM	Air	S15-Fe01355	X
11947	Feb 03, 2015		Air	S15-Fe01356	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Volume Measurement : MOB, JBS & G Australia (NSW & WA) P/L, has been trained by Eurofins | mgt and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] methodology. Sampling pumps used by JBS & G Australia (NSW & WA) P/L were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson

National 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

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

JBS&G (50369-60928)

05 February 2015

Health Infrastructure NSW

c/- Frank Princi

Appian

Via email: frank.princi@appiangroup.com.au

AMR31 - Daily Airborne Asbestos Fibre Monitoring
Westmead Hospital Redevelopment, Hawkesbury Rd, Westmead, NSW

Dear Frank,

Please find as **Attachment 1** the daily airborne asbestos fibre monitoring report for works completed at the Westmead Hospital of Site Project on **04 February 2015**.

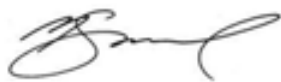
All air monitoring was completed in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003(2005)], with NATA certification applying to all sample collection, handling and analytical procedures.

All reported results were satisfactory and below the minimum action levels for control monitoring as outlined in:

- Work, Health and Safety (2011) Regulation; and
- WorkCover Authority of NSW (2011) Code of Practice – *How to Safely Remove Asbestos*.

If you have any questions regarding these results, please feel free to contact the undersigned on 02 8245 0300 or by email msamuel@jbsg.com.au.

Yours sincerely



Michael Samuel
Licensed Asbestos Assessor (LAA 000157)
JBS&G Australia Pty Ltd

Attachments: 1) Daily Air Monitoring Locations Map
 2) Daily Airborne Asbestos Fibre Monitoring Report

Attachment 1 – Daily Air Monitoring Locations Map

Attachment 2 – Daily Airborne Asbestos Fibre Monitoring Report

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: Michael Samuel
Report 446313-AFC
Project Name WESTMEAD 50369
Received Date Feb 04, 2015
Date Reported Feb 04, 2015

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Mini Buck Model M-5: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name WESTMEAD 50369
Project ID
Date Sampled Feb 04, 2015
Report 446313-AFC

Eurofins mgt Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Result (Fibres/mL)
15-Fe02212	15358	SKC 003	CENTRAL PORTION OF ADHC NORTH OF WORKS AREA	7:21	13:00	1.5	1.5	1.5	< 0.01
15-Fe02213	15274	SKC 138	CENTRAL PORTION OF ADHC NW OF WORKS AREA	7:24	13:03	1.5	1.5	1.5	< 0.01
15-Fe02214	15411	SKC 220	CENTRAL PORTION OF ADHC EAST OF WORKS AREA	7:27	13:06	1.5	1.5	1.5	< 0.01
15-Fe02215	15236	SKC 478	CENTRAL PORTION OF ADHC WEST OF WORKS AREA	7:30	13:09	1.5	1.5	1.5	< 0.01
15-Fe02216	15510	SKC 517	CENTRAL PORTION OF ADHC SOUTH OF WORKS AREA	7:33	13:12	1.5	1.5	1.5	< 0.01
15-Fe02217	15494	BLANK	BLANK			--	--	--	0 fibres / 100 field

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8010	Sydney	Feb 04, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WESTMEAD 50369

Order No.:
Report #: 446313
Phone: 02 8245 0300
Fax:

Received: Feb 4, 2015 1:46 PM
Due: Feb 4, 2015
Priority: Same day
Contact Name: Michael Samuel

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos (concentration of fibres in air)
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
15358	Feb 04, 2015	1:00PM	Air	S15-Fe02212	X
15274	Feb 04, 2015	1:03PM	Air	S15-Fe02213	X
15411	Feb 04, 2015	1:06PM	Air	S15-Fe02214	X
15236	Feb 04, 2015	1:09PM	Air	S15-Fe02215	X
15510	Feb 04, 2015	1:12PM	Air	S15-Fe02216	X
15494	Feb 04, 2015		Air	S15-Fe02217	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Volume Measurement : MOB, JBS & G Australia (NSW & WA) P/L, has been trained by Eurofins | mgt and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] methodology. Sampling pumps used by JBS & G Australia (NSW & WA) P/L were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson

National 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

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

JBS&G (50369-60937)

06 February 2015

Health Infrastructure NSW

c/- Frank Princi

Appian

Via email: frank.princi@appiangroup.com.au

AMR32 - Daily Airborne Asbestos Fibre Monitoring
Westmead Hospital Redevelopment, Hawkesbury Rd, Westmead, NSW

Dear Frank,

Please find as **Attachment 1** the daily airborne asbestos fibre monitoring report for works completed at the Westmead Hospital of Site Project on **05 February 2015**.

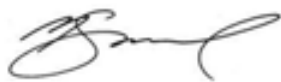
All air monitoring was completed in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003(2005)], with NATA certification applying to all sample collection, handling and analytical procedures.

All reported results were satisfactory and below the minimum action levels for control monitoring as outlined in:

- Work, Health and Safety (2011) Regulation; and
- WorkCover Authority of NSW (2011) Code of Practice – *How to Safely Remove Asbestos*.

If you have any questions regarding these results, please feel free to contact the undersigned on 02 8245 0300 or by email msamuel@jbsg.com.au.

Yours sincerely



Michael Samuel
Licensed Asbestos Assessor (LAA 000157)
JBS&G Australia Pty Ltd

Attachments: 1) Daily Air Monitoring Locations Map
 2) Daily Airborne Asbestos Fibre Monitoring Report

Attachment 1 – Daily Air Monitoring Locations Map



Legend:

-  Air Monitoring Location
-  Health Infrastructure Principal Contractor Site Extent
- Health Infrastructure Principal Contractor Site Areas**
 -  AREA A - Westmead Early Works
 -  AREA B - Westmead Carparking
 -  AREA C - Westmead Pathology Building
 -  Western Sydney Health District Principal Contractor Site Extent



Job No: 50369

Client: Health Infrastructure

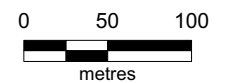
Version: R01 Rev A

Date: 05-Feb-2015

Drawn By: RF

Checked By: MH

Scale 1:4,500



Coor. Sys. GDA 1994 MGA Zone 56

**Health Infrastructure -
Westmead Hospital Early
Works Consultant**

AIR MONITORING LOCATIONS

FIGURE 1

Attachment 2 – Daily Airborne Asbestos Fibre Monitoring Report

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: Michael Samuel
Report 446462-AFC
Project Name WESTMEAD 50369
Received Date Feb 05, 2015
Date Reported Feb 05, 2015

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Mini Buck Model M-5: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name WESTMEAD 50369
Project ID
Date Sampled Feb 05, 2015
Report 446462-AFC

Eurofins mgt Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Result (Fibres/mL)
15-Fe03095	87735	SKC 003	WEST PORTION OF ADHC NW OF WORKS AREA	7:00	13:00	1.5	1.5	1.5	< 0.01
15-Fe03096	87185	SKC 138	WEST PORTION OF ADHC NE OF WORKS AREA	7:03	13:03	1.5	1.5	1.5	< 0.01
15-Fe03097	87187	SKC 220	WEST PORTION OF ADHC EAST OF WORKS AREA	7:06	13:06	1.5	1.5	1.5	< 0.01
15-Fe03098	87204	SKC 478	WEST PORTION OF ADHC SOUTH OF WORKS AREA	7:09	13:09	1.5	1.5	1.5	< 0.01
15-Fe03099	87599	SKC 517	WEST PORTION OF ADHC WEST OF WORKS AREA	7:12	13:12	1.5	1.5	1.5	< 0.01
15-Fe03100	87816	BLANK	BLANK			--	--	--	0 fibres / 100 field

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8010	Sydney	Feb 05, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WESTMEAD 50369

Order No.:
Report #: 446462
Phone: 02 8245 0300
Fax:

Received: Feb 5, 2015 1:42 PM
Due: Feb 5, 2015
Priority: Same day
Contact Name: Michael Samuel

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos (concentration of fibres in air)
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
87735	Feb 05, 2015	1:00PM	Air	S15-Fe03095	X
87185	Feb 05, 2015	1:03PM	Air	S15-Fe03096	X
87187	Feb 05, 2015	1:06PM	Air	S15-Fe03097	X
87204	Feb 05, 2015	1:09PM	Air	S15-Fe03098	X
87599	Feb 05, 2015	1:12PM	Air	S15-Fe03099	X
87816	Feb 05, 2015		Air	S15-Fe03100	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Volume Measurement : MATT O'BRIEN, JBS & G Australia (NSW & WA) P/L, has been trained by Eurofins | mgt and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] methodology. Sampling pumps used by JBS & G Australia (NSW & WA) P/L were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson

National 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

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

JBS&G (50369-60983)

11 February 2015

Health Infrastructure NSW

c/- Frank Princi

Appian

Via email: frank.princi@appiangroup.com.au

AMR33 - Daily Airborne Asbestos Fibre Monitoring
Westmead Hospital Redevelopment, Hawkesbury Rd, Westmead, NSW

Dear Frank,

Please find as **Attachment 1** the daily airborne asbestos fibre monitoring report for works completed at the Westmead Hospital of Site Project on **07 February 2015**.

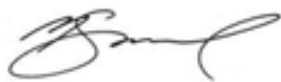
All air monitoring was completed in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003(2005)], with NATA certification applying to all sample collection, handling and analytical procedures.

All reported results were satisfactory and below the minimum action levels for control monitoring as outlined in:

- Work, Health and Safety (2011) Regulation; and
- WorkCover Authority of NSW (2011) Code of Practice – *How to Safely Remove Asbestos*.

If you have any questions regarding these results, please feel free to contact the undersigned on 02 8245 0300 or by email msamuel@jbsg.com.au.

Yours sincerely



Michael Samuel
Licensed Asbestos Assessor (LAA 000157)
JBS&G Australia Pty Ltd

Attachments: 1) Daily Air Monitoring Locations Map
 2) Daily Airborne Asbestos Fibre Monitoring Report

Attachment 1 – Daily Air Monitoring Locations Map



Legend:

-  Air Monitoring Location
-  Health Infrastructure Principal Contractor Site Extent
- Health Infrastructure Principal Contractor Site Areas**
 -  AREA A - Westmead Early Works
 -  AREA B - Westmead Carparking
 -  AREA C - Westmead Pathology Building
 -  Western Sydney Health District Principal Contractor Site Extent



Job No: 50369

Client: Health Infrastructure

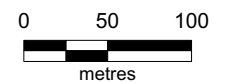
Version: R01 Rev A

Date: 07-Feb-2015

Drawn By: RF

Checked By: MH

Scale 1:4,500



Coor. Sys. GDA 1994 MGA Zone 56

**Health Infrastructure -
Westmead Hospital Early
Works Consultant**

AIR MONITORING LOCATIONS

FIGURE 1

Attachment 2 – Daily Airborne Asbestos Fibre Monitoring Report

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: Michael Samuel
Report 446462-AFC
Project Name WESTMEAD 50369
Received Date Feb 05, 2015
Date Reported Feb 05, 2015

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Mini Buck Model M-5: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name WESTMEAD 50369
Project ID
Date Sampled Feb 05, 2015
Report 446462-AFC

Eurofins mgt Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Result (Fibres/mL)
15-Fe03095	87735	SKC 003	WEST PORTION OF ADHC NW OF WORKS AREA	7:00	13:00	1.5	1.5	1.5	< 0.01
15-Fe03096	87185	SKC 138	WEST PORTION OF ADHC NE OF WORKS AREA	7:03	13:03	1.5	1.5	1.5	< 0.01
15-Fe03097	87187	SKC 220	WEST PORTION OF ADHC EAST OF WORKS AREA	7:06	13:06	1.5	1.5	1.5	< 0.01
15-Fe03098	87204	SKC 478	WEST PORTION OF ADHC SOUTH OF WORKS AREA	7:09	13:09	1.5	1.5	1.5	< 0.01
15-Fe03099	87599	SKC 517	WEST PORTION OF ADHC WEST OF WORKS AREA	7:12	13:12	1.5	1.5	1.5	< 0.01
15-Fe03100	87816	BLANK	BLANK			--	--	--	0 fibres / 100 field

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8010	Sydney	Feb 05, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WESTMEAD 50369

Order No.:
Report #: 446462
Phone: 02 8245 0300
Fax:

Received: Feb 5, 2015 1:42 PM
Due: Feb 5, 2015
Priority: Same day
Contact Name: Michael Samuel

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos (concentration of fibres in air)
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
87735	Feb 05, 2015	1:00PM	Air	S15-Fe03095	X
87185	Feb 05, 2015	1:03PM	Air	S15-Fe03096	X
87187	Feb 05, 2015	1:06PM	Air	S15-Fe03097	X
87204	Feb 05, 2015	1:09PM	Air	S15-Fe03098	X
87599	Feb 05, 2015	1:12PM	Air	S15-Fe03099	X
87816	Feb 05, 2015		Air	S15-Fe03100	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Volume Measurement : MATT O'BRIEN, JBS & G Australia (NSW & WA) P/L, has been trained by Eurofins | mgt and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] methodology. Sampling pumps used by JBS & G Australia (NSW & WA) P/L were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson

National 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

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

JBS&G (50369-61026)

17 February 2015

Health Infrastructure NSW
c/- Frank Princi
Appian
Via email: frank.princi@appiangroup.com.au

AMR34 - Daily Airborne Asbestos Fibre Monitoring
Westmead Hospital Redevelopment, Hawkesbury Rd, Westmead, NSW

Dear Frank,

Please find as **Attachment 1** the daily airborne asbestos fibre monitoring report for works completed at the Westmead Hospital of Site Project on **14 February 2015**.

All air monitoring was completed in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003(2005)], with NATA certification applying to all sample collection, handling and analytical procedures.

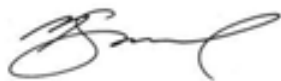
Please note that sample #CM387734 (Lab ID 15-Fe11614) was void due to equipment failure in accordance with [NOHSC: 3003(2005)].

All other reported results were satisfactory and below the minimum action levels for control monitoring as outlined in:

- Work, Health and Safety (2011) Regulation; and
- WorkCover Authority of NSW (2011) Code of Practice – *How to Safely Remove Asbestos*.

If you have any questions regarding these results, please feel free to contact the undersigned on 02 8245 0300 or by email msamuel@jbsg.com.au.

Yours sincerely



Michael Samuel
Licensed Asbestos Assessor (LAA 000157)
JBS&G Australia Pty Ltd

Attachments: 1) Daily Air Monitoring Locations Map
 2) Daily Airborne Asbestos Fibre Monitoring Report

Attachment 1 – Daily Air Monitoring Locations Map



Legend:

- Air Monitoring Location
- Health Infrastructure Principal Contractor Site Extent
- Health Infrastructure Principal Contractor Site Areas**
 - AREA A - Westmead Early Works
 - AREA B - Westmead Carparking
 - AREA C - Westmead Pathology Building
 - Western Sydney Health District Principal Contractor Site Extent



Job No: 50369

Client: Health Infrastructure

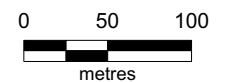
Version: R01 Rev A

Date: 14-Feb-2015

Drawn By: RF

Checked By: MH

Scale 1:4,500



Coor. Sys. GDA 1994 MGA Zone 56

**Health Infrastructure -
Westmead Hospital Early
Works Consultant**

AIR MONITORING LOCATIONS

FIGURE 1

Attachment 2 – Daily Airborne Asbestos Fibre Monitoring Report

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: Michael Samuel
Report 447610-V2-AFC
Project Name WESTMEAD 50369
Received Date Feb 16, 2015
Date Reported Feb 17, 2015

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Mini Buck Model M-5: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name WESTMEAD 50369
Project ID
Date Sampled Feb 14, 2015
Report 447610-V2-AFC

Eurofins mgt Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Result (Fibres/mL)
15-Fe11614	CM387734	G 005	SOUTH ACCESS TO SMALL CARPARK	7:10	11:20	2.0	2.0	2.0	VOID
15-Fe11615	CM387732	G 017	WEST ENTRANCE TO HOSPITAL	7:12	11:22	2.0	2.0	2.0	< 0.01
15-Fe11616	CM387692	G 006	WEST BOUNDARY OF SMALL CARPARK	7:14	11:24	2.0	2.0	2.0	< 0.01
15-Fe11617	CM387833	G 018	NORTH ACCESS ROAD TO SMALL CARPARK	7:16	11:26	2.0	2.0	2.0	< 0.01
15-Fe11618	CM387116	G 009	NORTH WEST ENTRANCE TO HOSPITAL	7:18	11:28	2.0	2.0	2.0	< 0.01
15-Fe11619	CM751217	BLANK	BLANK			--	--	--	0 fibres / 100 field

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8010	Sydney	Feb 16, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WESTMEAD 50369

Order No.:
Report #: 447610
Phone: 02 8245 0300
Fax:

Received: Feb 16, 2015 5:12 PM
Due: Feb 16, 2015
Priority: Same day
Contact Name: Michael Samuel

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos (concentration of fibres in air)
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
CM387734	Feb 14, 2015	11:20AM	Air	S15-Fe11614	X
CM387732	Feb 14, 2015	11:22AM	Air	S15-Fe11615	X
CM387692	Feb 14, 2015	11:24AM	Air	S15-Fe11616	X
CM387833	Feb 14, 2015	11:26AM	Air	S15-Fe11617	X
CM387116	Feb 14, 2015	11:28AM	Air	S15-Fe11618	X
CM751217	Feb 14, 2015		Air	S15-Fe11619	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Volume Measurement : M HUNTER, JBS & G Australia (NSW & WA) P/L, has been trained by Eurofins | mgt and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] methodology. Sampling pumps used by JBS & G Australia (NSW & WA) P/L were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Report amended to reflect VOID result.

*The sampling pumps used are not Eurofins | mgt approved for volume measurement at the flow rate used.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson

National 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

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

JBS&G (50369-61256)

10 March 2015

Health Infrastructure NSW

c/- Frank Princi

Appian

Via email: frank.princi@appiangroup.com.au

AMR35 - Daily Airborne Asbestos Fibre Monitoring
Westmead Hospital Redevelopment, Hawkesbury Rd, Westmead, NSW

Dear Frank,

Please find as **Attachment 1** the daily airborne asbestos fibre monitoring report for works completed at the Westmead Hospital of Site Project on **9 March 2015**.

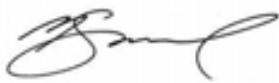
All air monitoring was completed in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003(2005)], with NATA certification applying to all sample collection, handling and analytical procedures.

All reported results were satisfactory and below the minimum action levels for control monitoring as outlined in:

- Work, Health and Safety (2011) Regulation; and
- WorkCover Authority of NSW (2011) Code of Practice – *How to Safely Remove Asbestos*.

If you have any questions regarding these results, please feel free to contact the undersigned on 02 8245 0300 or by email msamuel@jbsg.com.au.

Yours sincerely



Michael Samuel
Licensed Asbestos Assessor (LAA 000157)
JBS&G Australia Pty Ltd

Attachments: 1) Daily Airborne Asbestos Fibre Monitoring Report

Attachment 1 – Daily Airborne Asbestos Fibre Monitoring Report

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: Michael Samuel
Report 449912-AFC
Project Name WESTMEAD 50369
Received Date Mar 09, 2015
Date Reported Mar 09, 2015

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Mini Buck Model M-5: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name WESTMEAD 50369
Project ID
Date Sampled Mar 09, 2015
Report 449912-AFC

Eurofins mgt Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Result (Fibres/mL)
15-Ma05675	19951	SKC 144	NW PORTION OF CLUBHOUSE BOUNDARY ADJ TRENCH	8:26	12:51	2.0	2.0	2.0	< 0.01
15-Ma05676	19915	SKC 218	WEST OF CLUBHOUSE BOUNDARY ADJ TRENCH	8:29	12:54	2.0	2.0	2.0	< 0.01
15-Ma05677	19955	SKC 221	SW OF CLUBHOUSE BOUNDARY ADJ TRENCH	8:32	12:57	2.0	2.0	2.0	< 0.01
15-Ma05678	19949	BLANK	BLANK			--	--	--	0 fibres / 100 field

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8010	Sydney	Mar 09, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WESTMEAD 50369

Order No.:
Report #: 449912
Phone: 02 8245 0300
Fax:

Received: Mar 9, 2015 2:19 PM
Due: Mar 9, 2015
Priority: Same day
Contact Name: Michael Samuel

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos (concentration of fibres in air)
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
19951	Mar 09, 2015	12:51PM	Air	S15-Ma05675	X
19915	Mar 09, 2015	12:54PM	Air	S15-Ma05676	X
19955	Mar 09, 2015	12:57PM	Air	S15-Ma05677	X
19949	Mar 09, 2015		Air	S15-Ma05678	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Volume Measurement : MOB, JBS & G Australia (NSW & WA) P/L, has been trained by Eurofins | mgt and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] methodology. Sampling pumps used by JBS & G Australia (NSW & WA) P/L were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson

National 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

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

JBS&G (50369-100301)

15 April 2015

Health Infrastructure NSW

c/- Frank Princi

Appian

Via email: frank.princi@appiangroup.com.au

AMR36 - Daily Airborne Asbestos Fibre Monitoring
Westmead Hospital Redevelopment, Hawkesbury Rd, Westmead, NSW

Dear Frank,

Please find as **Attachment 1** the daily airborne asbestos fibre monitoring report for works completed at the Westmead Hospital of Site Project on **11 April 2015**.

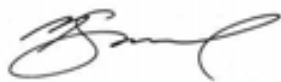
All air monitoring was completed in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003(2005)], with NATA certification applying to all sample collection, handling and analytical procedures.

All reported results were satisfactory and below the minimum action levels for control monitoring as outlined in:

- Work, Health and Safety (2011) Regulation; and
- WorkCover Authority of NSW (2011) Code of Practice – *How to Safely Remove Asbestos*.

If you have any questions regarding these results, please feel free to contact the undersigned on 02 8245 0300 or by email msamuel@jbsg.com.au.

Yours sincerely



Michael Samuel
Licensed Asbestos Assessor (LAA 000157)
JBS&G Australia Pty Ltd

Attachments: 1) Daily Airborne Asbestos Fibre Monitoring Report

Attachment 1 – Daily Air Monitoring Locations Map



Legend:

-  Air Monitoring Location
-  Health Infrastructure Principal Contractor Site Extent
- Health Infrastructure Principal Contractor Site Areas**
 -  AREA A - Westmead Early Works
 -  AREA B - Westmead Carparking
 -  AREA C - Westmead Pathology Building
 -  Western Sydney Health District Principal Contractor Site Extent



Job No: 50369

Client: Health Infrastructure

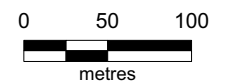
Version: R01 Rev A

Date: 11- April-2015

Drawn By: RF

Checked By: MH

Scale 1:4,500



Coor. Sys. GDA 1994 MGA Zone 56

**Health Infrastructure -
Westmead Hospital Early
Works Consultant**

AIR MONITORING LOCATIONS

FIGURE 1

Attachment 2 – Daily Airborne Asbestos Fibre Monitoring Report

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: Michael Samuel
Report 453718-V2-AFC
Project Name
Project ID 50369
Received Date Apr 13, 2015
Date Reported Apr 13, 2015

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Mini Buck Model M-5: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name
Project ID 50369
Date Sampled Apr 11, 2015
Report 453718-V2-AFC

Eurofins mgt Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Result (Fibres/mL)
15-Ap07788	CM386888	AC 001	NORTH WEST CAR PARK BOUNDARY	7:25	11:40	2.0	2.0	2.0	< 0.01
15-Ap07789	CM387076	AC 002	NORTH BOUNDARY PLAYING FIELD	7:27	11:42	2.0	2.0	2.0	< 0.01
15-Ap07790	CM386884	AC 003	EAST BOUNDARY, BRAIN INJURY CLINIC	7:29	11:44	2.0	2.0	2.0	< 0.01
15-Ap07791	CM386962	AC 005	SOUTH CAR PARK BOUNDARY	7:31	11:46	2.0	2.0	2.0	< 0.01
15-Ap07792	CM386917	G 006	SOUTH WEST BOUNDARY, HOSPITAL MAIN BUILDING	7:33	11:48	2.0	2.0	2.0	< 0.01
15-Ap07793	CM386937	BLANK	BLANK			--	--	--	0 fibres / 100 field

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8010	Sydney	Apr 13, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name:
Project ID: 50369

Order No.:
Report #: 453718
Phone: 02 8245 0300
Fax:

Received: Apr 13, 2015 5:15 PM
Due: Apr 13, 2015
Priority: Same day
Contact Name: Michael Samuel

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos (concentration of fibres in air)
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
CM386888	Apr 11, 2015	11:40AM	Air	S15-Ap07788	X
CM387076	Apr 11, 2015	11:42AM	Air	S15-Ap07789	X
CM386884	Apr 11, 2015	11:44AM	Air	S15-Ap07790	X
CM386962	Apr 11, 2015	11:46AM	Air	S15-Ap07791	X
CM386917	Apr 11, 2015	11:48AM	Air	S15-Ap07792	X
CM386937	Apr 11, 2015		Air	S15-Ap07793	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Volume Measurement : , JBS & G Australia (NSW & WA) P/L, has been trained by Eurofins | mgt and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] methodology. Sampling pumps used by JBS & G Australia (NSW & WA) P/L were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Report amended to reflect addition of project ID.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson

National 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

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

JBS&G (50369-100340)

20 April 2015

Health Infrastructure NSW
c/- Frank Princi
Price Waterhouse Coopers (PwC)
Via email: frank.princi@au.pwc.com

AMR37 - Daily Airborne Asbestos Fibre Monitoring
Westmead Hospital Redevelopment, Hawkesbury Rd, Westmead, NSW

Dear Frank,

Please find as **Attachment 1** the daily airborne asbestos fibre monitoring report for works completed at the Westmead Hospital of Site Project on **17 April 2015**.

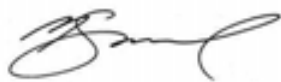
All air monitoring was completed in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003(2005)], with NATA certification applying to all sample collection, handling and analytical procedures.

All reported results were satisfactory and below the minimum action levels for control monitoring as outlined in:

- Work, Health and Safety (2011) Regulation; and
- WorkCover Authority of NSW (2011) Code of Practice – *How to Safely Remove Asbestos*.

If you have any questions regarding these results, please feel free to contact the undersigned on 02 8245 0300 or by email msamuel@jbsg.com.au.

Yours sincerely



Michael Samuel
Licensed Asbestos Assessor (LAA 000157)
JBS&G Australia Pty Ltd

Attachments: 1) Daily Airborne Asbestos Fibre Monitoring Report

Attachment 1 – Daily Air Monitoring Locations Map



Legend:

-  Air Monitoring Location
-  Health Infrastructure Principal Contractor Site Extent
- Health Infrastructure Principal Contractor Site Areas**
 -  AREA A - Westmead Early Works
 -  AREA B - Westmead Carparking
 -  AREA C - Westmead Pathology Building
 -  Western Sydney Health District Principal Contractor Site Extent



Job No: 50369

Client: Health Infrastructure

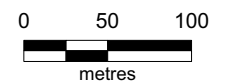
Version: R01 Rev A

Date: 17-Apr-2015

Drawn By: RF

Checked By: MH

Scale 1:4,500



Coor. Sys. GDA 1994 MGA Zone 56

**Health Infrastructure -
Westmead Hospital Early
Works Consultant**

AIR MONITORING LOCATIONS

FIGURE 1

Attachment 2 – Daily Airborne Asbestos Fibre Monitoring Report

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention:	Michael Samuel
Report	454336-AFC
Project Name	WESTMEAD
Project ID	50369
Received Date	Apr 17, 2015
Date Reported	Apr 17, 2015

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Mini Buck Model M-5: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name WESTMEAD
Project ID 50369
Date Sampled Apr 17, 2015
Report 454336-AFC

Eurofins mgt Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Result (Fibres/mL)
15-Ap12550	17009	SKC 007 117	SOUTH PORTION OF OVAL ADJ STAFF CAR PARK	7:45	12:00	2.0	2.0	2.0	< 0.01
15-Ap12551	17025	SKC 142	EAST PORTION OF OVAL ADJ CHILD CARE	7:48	12:03	2.0	2.0	2.0	< 0.01
15-Ap12552	16962	SKC 144	NW PORTION OF OVAL ADJ REDBANK HOUSE	7:51	12:06	2.0	2.0	2.0	< 0.01
15-Ap12553	16954	SKC 220	WEST PORTION OF OVAL ADJ REDBANK HOUSE	7:54	12:09	2.0	2.0	2.0	< 0.01
15-Ap12554	17013	SKC 221	SW PORTION OF OVAL ADJ HALL DEMO	7:57	12:12	2.0	2.0	2.0	< 0.01
15-Ap12555	16983	BLANK	BLANK			--	--	--	0 fibres / 100 field

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8010	Sydney	Apr 17, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WESTMEAD
Project ID: 50369

Order No.:
Report #: 454336
Phone: 02 8245 0300
Fax:

Received: Apr 17, 2015 1:25 PM
Due: Apr 17, 2015
Priority: Same day
Contact Name: Michael Samuel

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos (concentration of fibres in air)
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
17009	Apr 17, 2015	12:00PM	Air	S15-Ap12550	X
17025	Apr 17, 2015	12:03PM	Air	S15-Ap12551	X
16962	Apr 17, 2015	12:06PM	Air	S15-Ap12552	X
16954	Apr 17, 2015	12:09PM	Air	S15-Ap12553	X
17013	Apr 17, 2015	12:12PM	Air	S15-Ap12554	X
16983	Apr 17, 2015		Air	S15-Ap12555	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Volume Measurement : MOB, JBS & G Australia (NSW & WA) P/L, has been trained by Eurofins | mgt and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] methodology. Sampling pumps used by JBS & G Australia (NSW & WA) P/L were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson

National 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

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

JBS&G (50369-100354)

21 April 2015

Health Infrastructure NSW
c/- Frank Princi
Price Waterhouse Coopers (PwC)
Via email: frank.princi@au.pwc.com

AMR38 - Daily Airborne Asbestos Fibre Monitoring
Westmead Hospital Redevelopment, Hawkesbury Rd, Westmead, NSW

Dear Frank,

Please find as **Attachment 1** the daily airborne asbestos fibre monitoring report for works completed at the Westmead Hospital of Site Project on **18 April 2015**.

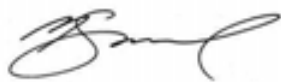
All air monitoring was completed in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003(2005)], with NATA certification applying to all sample collection, handling and analytical procedures.

All reported results were satisfactory and below the minimum action levels for control monitoring as outlined in:

- Work, Health and Safety (2011) Regulation; and
- WorkCover Authority of NSW (2011) Code of Practice – *How to Safely Remove Asbestos*.

If you have any questions regarding these results, please feel free to contact the undersigned on 02 8245 0300 or by email msamuel@jbsg.com.au.

Yours sincerely



Michael Samuel
Licensed Asbestos Assessor (LAA 000157)
JBS&G Australia Pty Ltd

Attachments: 1) Daily Airborne Asbestos Fibre Monitoring Report

Attachment 1 – Daily Air Monitoring Locations Map



Legend:

- Air Monitoring Location
- Health Infrastructure Principal Contractor Site Extent
- Health Infrastructure Principal Contractor Site Areas**
 - AREA A - Westmead Early Works
 - AREA B - Westmead Carparking
 - AREA C - Westmead Pathology Building
- Western Sydney Health District Principal Contractor Site Extent



Job No: 50369

Client: Health Infrastructure

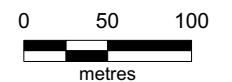
Version: R01 Rev A

Date: 18-Apr-2015

Drawn By: RF

Checked By: MH

Scale 1:4,500



Coor. Sys. GDA 1994 MGA Zone 56

**Health Infrastructure -
Westmead Hospital Early
Works Consultant**

AIR MONITORING LOCATIONS

FIGURE 1

Attachment 2 – Daily Airborne Asbestos Fibre Monitoring Report

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: Michael Samuel
Report 454492-AFC
Project Name WESTMEAD 50369
Received Date Apr 20, 2015
Date Reported Apr 20, 2015

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Mini Buck Model M-5: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name WESTMEAD 50369
Project ID
Date Sampled Apr 18, 2015
Report 454492-AFC

Eurofins mgt Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Result (Fibres/mL)
15-Ap13830	16949	SKC 003	SOUTH PORTION OF CARPARK 4 ADJ DRILLING	7:00	11:00	2.0	2.0	2.0	< 0.01
15-Ap13831	16972	SKC 007117	SE PORTION OF CARPARK 4 ADJ DRILLING	7:03	11:03	2.0	2.0	2.0	< 0.01
15-Ap13832	16964	SKC 142	NE PORTION OF CARPARK 4 ADJ DRILLING	7:06	11:06	2.0	2.0	2.0	< 0.01
15-Ap13833	16975	SKC 144	SOUTH PORTION OF HEALTH SHARE ADJ DRILLING	7:09	11:09	2.0	2.0	2.0	< 0.01
15-Ap13834	16969	SKC 478	NORTH PORTION OF HEALTH SHARE ADJ DRILLING	7:12	11:12	2.0	2.0	2.0	< 0.01
15-Ap13835	17038	BLANK	BLANK			--	--	--	0 fibres / 100 field

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8010	Sydney	Apr 20, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WESTMEAD 50369

Order No.:
Report #: 454492
Phone: 02 8245 0300
Fax:

Received: Apr 20, 2015 1:04 PM
Due: Apr 20, 2015
Priority: Same day
Contact Name: Michael Samuel

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos (concentration of fibres in air)
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
16949	Apr 18, 2015	11:00AM	Air	S15-Ap13830	X
16972	Apr 18, 2015	11:03AM	Air	S15-Ap13831	X
16964	Apr 18, 2015	11:06AM	Air	S15-Ap13832	X
16975	Apr 18, 2015	11:09AM	Air	S15-Ap13833	X
16969	Apr 18, 2015	11:12AM	Air	S15-Ap13834	X
17038	Apr 18, 2015		Air	S15-Ap13835	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Volume Measurement : MOB, JBS & G Australia (NSW & WA) P/L, has been trained by Eurofins | mgt and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] methodology. Sampling pumps used by JBS & G Australia (NSW & WA) P/L were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson

National 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

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

JBS&G (50369-100368)

22 April 2015

Health Infrastructure NSW
c/- Frank Princi
Price Waterhouse Coopers (PwC)
Via email: frank.princi@au.pwc.com

AMR39 - Daily Airborne Asbestos Fibre Monitoring
Westmead Hospital Redevelopment, Hawkesbury Rd, Westmead, NSW

Dear Frank,

Please find as **Attachment 1** the daily airborne asbestos fibre monitoring report for works completed at the Westmead Hospital of Site Project on **21 April 2015**.

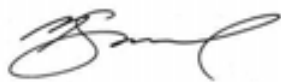
All air monitoring was completed in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003(2005)], with NATA certification applying to all sample collection, handling and analytical procedures.

All reported results were satisfactory and below the minimum action levels for control monitoring as outlined in:

- Work, Health and Safety (2011) Regulation; and
- WorkCover Authority of NSW (2011) Code of Practice – *How to Safely Remove Asbestos*.

If you have any questions regarding these results, please feel free to contact the undersigned on 02 8245 0300 or by email msamuel@jbsg.com.au.

Yours sincerely



Michael Samuel
Licensed Asbestos Assessor (LAA 000157)
JBS&G Australia Pty Ltd

Attachments: 1) Daily Airborne Asbestos Fibre Monitoring Report

Attachment 1 – Daily Air Monitoring Locations Map



Legend:

- Air Monitoring Location
- Health Infrastructure Principal Contractor Site Extent
- Health Infrastructure Principal Contractor Site Areas**
 - AREA A - Westmead Early Works
 - AREA B - Westmead Carparking
 - AREA C - Westmead Pathology Building
 - Western Sydney Health District Principal Contractor Site Extent



Job No: 50369

Client: Health Infrastructure

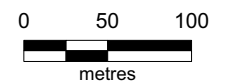
Version: R01 Rev A

Date: 21-Apr-2015

Drawn By: RF

Checked By: MH

Scale 1:4,500



Coor. Sys. GDA 1994 MGA Zone 56

**Health Infrastructure -
Westmead Hospital Early
Works Consultant**

AIR MONITORING LOCATIONS

FIGURE 1

Attachment 2 – Daily Airborne Asbestos Fibre Monitoring Report

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention:	Michael Samuel
Report	454667-AFC
Project Name	WESTMEAD
Project ID	50369
Received Date	Apr 21, 2015
Date Reported	Apr 21, 2015

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Mini Buck Model M-5: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name WESTMEAD
Project ID 50369
Date Sampled Apr 21, 2015
Report 454667-AFC

Eurofins mgt Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Result (Fibres/mL)
15-Ap14951	16981	SKC 007 117	SOUTH PORTION OF OVAL ADJ STAFF CAR PARK	7:35	11:55	2.0	2.0	2.0	< 0.01
15-Ap14952	16976	SKC 142	EAST PORTION OF OVAL ADJ CHILD CARE	7:38	11:58	2.0	2.0	2.0	< 0.01
15-Ap14953	16997	SKC 144	WEST PORTION OF OVAL ADJ REDBANK HOUSE	7:41	12:01	2.0	2.0	2.0	< 0.01
15-Ap14954	17032	SKC 478	SW PORTION OF OVAL ADJ REDBANK HOUSE	7:44	12:04	2.0	2.0	2.0	< 0.01
15-Ap14955	17012	BLANK	BLANK			--	--	--	0 fibres / 100 field

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8010	Sydney	Apr 21, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WESTMEAD
Project ID: 50369

Order No.:
Report #: 454667
Phone: 02 8245 0300
Fax:

Received: Apr 21, 2015 1:19 PM
Due: Apr 21, 2015
Priority: Same day
Contact Name: Michael Samuel

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos (concentration of fibres in air)
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
16981	Apr 21, 2015	11:55AM	Air	S15-Ap14951	X
16976	Apr 21, 2015	11:58AM	Air	S15-Ap14952	X
16997	Apr 21, 2015	12:01PM	Air	S15-Ap14953	X
17032	Apr 21, 2015	12:04PM	Air	S15-Ap14954	X
17012	Apr 21, 2015		Air	S15-Ap14955	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Volume Measurement : MOB, JBS & G Australia (NSW & WA) P/L, has been trained by Eurofins | mgt and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] methodology. Sampling pumps used by JBS & G Australia (NSW & WA) P/L were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson

National 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

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

JBS&G (50369-100397)

27 April 2015

Health Infrastructure NSW
c/- Frank Princi
Price Waterhouse Coopers (PwC)
Via email: frank.princi@au.pwc.com

AMR40 - Daily Airborne Asbestos Fibre Monitoring
Westmead Hospital Redevelopment, Hawkesbury Rd, Westmead, NSW

Dear Frank,

Please find as **Attachment 1** the daily airborne asbestos fibre monitoring report for works completed at the Westmead Hospital of Site Project on **24 April 2015**.

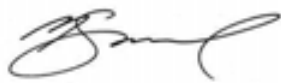
All air monitoring was completed in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003(2005)], with NATA certification applying to all sample collection, handling and analytical procedures.

All reported results were satisfactory and below the minimum action levels for control monitoring as outlined in:

- Work, Health and Safety (2011) Regulation; and
- WorkCover Authority of NSW (2011) Code of Practice – *How to Safely Remove Asbestos*.

If you have any questions regarding these results, please feel free to contact the undersigned on 02 8245 0300 or by email msamuel@jbsg.com.au.

Yours sincerely



Michael Samuel
Licensed Asbestos Assessor (LAA 000157)
JBS&G Australia Pty Ltd

Attachments: 1) Daily Airborne Asbestos Fibre Monitoring Report

Attachment 1 – Daily Air Monitoring Locations Map



Legend:

- Air Monitoring Location
- Health Infrastructure Principal Contractor Site Extent
- Health Infrastructure Principal Contractor Site Areas**
 - AREA A - Westmead Early Works
 - AREA B - Westmead Carparking
 - AREA C - Westmead Pathology Building
 - Western Sydney Health District Principal Contractor Site Extent



Job No: 50369

Client: Health Infrastructure

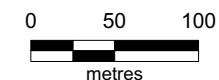
Version: R01 Rev A

Date: 28-Apr-2015

Drawn By: RF

Checked By: MH

Scale 1:4,500



Coor. Sys. GDA 1994 MGA Zone 56

**Health Infrastructure -
Westmead Hospital Early
Works Consultant**

AIR MONITORING LOCATIONS

FIGURE 1

Attachment 2 – Daily Airborne Asbestos Fibre Monitoring Report

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention:	Michael Samuel
Report	455158-AFC
Project Name	WESTMEAD
Project ID	50369
Received Date	Apr 24, 2015
Date Reported	Apr 24, 2015

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Mini Buck Model M-5: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name WESTMEAD
Project ID 50369
Date Sampled Apr 24, 2015
Report 455158-AFC

Eurofins mgt Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Result (Fibres/mL)
15-Ap18398	16602	SKC 007 117	WEST OF ADHC BUILDING ADJ DRILLING WORKS	7:45	12:00	2.0	2.0	2.0	< 0.01
15-Ap18399	16598	SKC 142	SOUTH OF ADHC BUILDING ADJ DRILLING WORKS	7:48	12:03	2.0	2.0	2.0	< 0.01
15-Ap18400	16657	SKC 144	SE OF ADHC BUILDING ADJ DRILLING WORKS	7:51	12:06	2.0	2.0	2.0	< 0.01
15-Ap18401	16592	SKC 220	EAST OF ADHC BUILDING ADJ DRILLING WORKS	7:54	12:09	2.0	2.0	2.0	< 0.01
15-Ap18402	16596	BLANK	BLANK			--	--	--	0 fibres / 100 field

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8010	Sydney	Apr 24, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WESTMEAD
Project ID: 50369

Order No.:
Report #: 455158
Phone: 02 8245 0300
Fax:

Received: Apr 24, 2015 1:33 PM
Due: Apr 24, 2015
Priority: Same day
Contact Name: Michael Samuel

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos (concentration of fibres in air)
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
16602	Apr 24, 2015	12:00PM	Air	S15-Ap18398	X
16598	Apr 24, 2015	12:03PM	Air	S15-Ap18399	X
16657	Apr 24, 2015	12:06PM	Air	S15-Ap18400	X
16592	Apr 24, 2015	12:09PM	Air	S15-Ap18401	X
16596	Apr 24, 2015		Air	S15-Ap18402	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Volume Measurement : , JBS & G Australia (NSW & WA) P/L, has been trained by Eurofins | mgt and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] methodology. Sampling pumps used by JBS & G Australia (NSW & WA) P/L were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson

National 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

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

JBS&G (50369-100427)

29 April 2015

Health Infrastructure NSW
c/- Frank Princi
Price Waterhouse Coopers (PwC)
Via email: frank.princi@au.pwc.com

AMR41 - Daily Airborne Asbestos Fibre Monitoring
Westmead Hospital Redevelopment, Hawkesbury Rd, Westmead, NSW

Dear Frank,

Please find as **Attachment 1** the daily airborne asbestos fibre monitoring report for works completed at the Westmead Hospital of Site Project on **28 April 2015**.

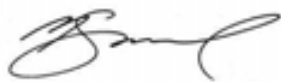
All air monitoring was completed in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003(2005)], with NATA certification applying to all sample collection, handling and analytical procedures.

All reported results were satisfactory and below the minimum action levels for control monitoring as outlined in:

- Work, Health and Safety (2011) Regulation; and
- WorkCover Authority of NSW (2011) Code of Practice – *How to Safely Remove Asbestos*.

If you have any questions regarding these results, please feel free to contact the undersigned on 02 8245 0300 or by email msamuel@jbsg.com.au.

Yours sincerely



Michael Samuel
Licensed Asbestos Assessor (LAA 000157)
JBS&G Australia Pty Ltd

Attachments: 1) Daily Airborne Asbestos Fibre Monitoring Report

Attachment 1 – Daily Air Monitoring Locations Map



Legend:

- Air Monitoring Location
- Health Infrastructure Principal Contractor Site Extent
- Health Infrastructure Principal Contractor Site Areas**
 - AREA A - Westmead Early Works
 - AREA B - Westmead Carparking
 - AREA C - Westmead Pathology Building
- Western Sydney Health District Principal Contractor Site Extent



Job No: 50369

Client: Health Infrastructure

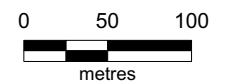
Version: R01 Rev A

Date: 28-Apr-2015

Drawn By: RF

Checked By: MH

Scale 1:4,500



Coor. Sys. GDA 1994 MGA Zone 56

**Health Infrastructure -
Westmead Hospital Early
Works Consultant**

AIR MONITORING LOCATIONS

FIGURE 1

Attachment 2 – Daily Airborne Asbestos Fibre Monitoring Report

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: Michael Samuel
Report 455478-AFC
Project Name WESTMEAD 50369
Received Date Apr 28, 2015
Date Reported Apr 28, 2015

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Mini Buck Model M-5: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name WESTMEAD 50369
Project ID
Date Sampled Apr 28, 2015
Report 455478-AFC

Eurofins mgt Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Result (Fibres/mL)
15-Ap20964	16764	SKC 007 117	SOUTH PORTION OF OVAL ADJ STAFF CAR PARK	8:00	12:00	2.0	2.0	2.0	< 0.01
15-Ap20965	16715	SKC 142	EAST PORTION OF OVAL ADJ CHILD CARE	8:03	12:03	2.0	2.0	2.0	< 0.01
15-Ap20966	16586	SKC 220	WEST PORTION OF OVAL ADJ REDBANK HOUSE	8:06	12:06	2.0	2.0	2.0	< 0.01
15-Ap20967	16749	SKC 223	SW PORTION OF OVAL ADJ REDBANK HOUSE	8:09	12:09	2.0	2.0	2.0	< 0.01
15-Ap20968	16622	BLANK	BLANK			--	--	--	0 fibres / 100 field

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8010	Sydney	Apr 28, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WESTMEAD 50369

Order No.:
Report #: 455478
Phone: 02 8245 0300
Fax:

Received: Apr 28, 2015 2:00 PM
Due: Apr 28, 2015
Priority: Same day
Contact Name: Michael Samuel

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos (concentration of fibres in air)
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
16764	Apr 28, 2015	12:00PM	Air	S15-Ap20964	X
16715	Apr 28, 2015	12:03PM	Air	S15-Ap20965	X
16586	Apr 28, 2015	12:06PM	Air	S15-Ap20966	X
16749	Apr 28, 2015	12:09PM	Air	S15-Ap20967	X
16622	Apr 28, 2015		Air	S15-Ap20968	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Volume Measurement : MOB, JBS & G Australia (NSW & WA) P/L, has been trained by Eurofins | mgt and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] methodology. Sampling pumps used by JBS & G Australia (NSW & WA) P/L were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson

National 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

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

JBS&G (50369-100439)

30 April 2015

Health Infrastructure NSW
c/- Frank Princi
Price Waterhouse Coopers (PwC)
Via email: frank.princi@au.pwc.com

AMR42 - Daily Airborne Asbestos Fibre Monitoring
Westmead Hospital Redevelopment, Hawkesbury Rd, Westmead, NSW

Dear Frank,

Please find as **Attachment 1** the daily airborne asbestos fibre monitoring report for works completed at the Westmead Hospital of Site Project on **29 April 2015**.

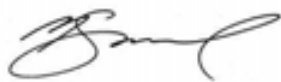
All air monitoring was completed in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003(2005)], with NATA certification applying to all sample collection, handling and analytical procedures.

All reported results were satisfactory and below the minimum action levels for control monitoring as outlined in:

- Work, Health and Safety (2011) Regulation; and
- WorkCover Authority of NSW (2011) Code of Practice – *How to Safely Remove Asbestos*.

If you have any questions regarding these results, please feel free to contact the undersigned on 02 8245 0300 or by email msamuel@jbsg.com.au.

Yours sincerely



Michael Samuel
Licensed Asbestos Assessor (LAA 000157)
JBS&G Australia Pty Ltd

Attachments: 1) Daily Airborne Asbestos Fibre Monitoring Report

Attachment 1 – Daily Air Monitoring Locations Map



Legend:

- Air Monitoring Location
- Health Infrastructure Principal Contractor Site Extent
- Health Infrastructure Principal Contractor Site Areas**
 - AREA A - Westmead Early Works
 - AREA B - Westmead Carparking
 - AREA C - Westmead Pathology Building
 - Western Sydney Health District Principal Contractor Site Extent



Job No: 50369

Client: Health Infrastructure

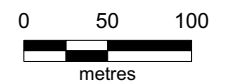
Version: R01 Rev A

Date: 29-Apr-2015

Drawn By: RF

Checked By: MH

Scale 1:4,500



Coor. Sys. GDA 1994 MGA Zone 56

**Health Infrastructure -
Westmead Hospital Early
Works Consultant**

AIR MONITORING LOCATIONS

FIGURE 1

Attachment 2 – Daily Airborne Asbestos Fibre Monitoring Report

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention:	Michael Samuel
Report	455611-AFC
Project Name	WESTMEAD
Project ID	50369
Received Date	Apr 29, 2015
Date Reported	Apr 29, 2015

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Mini Buck Model M-5: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name WESTMEAD
Project ID 50369
Date Sampled Apr 29, 2015
Report 455611-AFC

Eurofins mgt Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Result (Fibres/mL)
15-Ap22331	16725	SKC 007 117	EAST PORTION OF SITE/OVAL ADJ CHILD CARE	8:00	12:00	2.0	2.0	2.0	< 0.01
15-Ap22332	16626	SKC 142	NORTH PORTION OF SITE ADJ CARE FLIGHT	8:03	12:03	2.0	2.0	2.0	< 0.01
15-Ap22333	16643	SKC 221	NW PORTION OF SITE ADJ CREEK	8:06	12:06	2.0	2.0	2.0	< 0.01
15-Ap22334	16590	SKC 478	WEST PORTION OF SITE ADJ REDBANK HOUSE	8:09	12:09	2.0	2.0	2.0	< 0.01
15-Ap22335	16723	BLANK	BLANK			--	--	--	0 fibres / 100 field

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8010	Sydney	Apr 29, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WESTMEAD
Project ID: 50369

Order No.:
Report #: 455611
Phone: 02 8245 0300
Fax:

Received: Apr 29, 2015 1:34 PM
Due: Apr 29, 2015
Priority: Same day
Contact Name: Michael Samuel

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos (concentration of fibres in air)
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
16725	Apr 29, 2015	12:00PM	Air	S15-Ap22331	X
16626	Apr 29, 2015	12:03PM	Air	S15-Ap22332	X
16643	Apr 29, 2015	12:06PM	Air	S15-Ap22333	X
16590	Apr 29, 2015	12:09PM	Air	S15-Ap22334	X
16723	Apr 29, 2015		Air	S15-Ap22335	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Volume Measurement : , JBS & G Australia (NSW & WA) P/L, has been trained by Eurofins | mgt and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] methodology. Sampling pumps used by JBS & G Australia (NSW & WA) P/L were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson

National 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

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

JBS&G (50369-100450)

01 May 2015

Health Infrastructure NSW
c/- Frank Princi
Price Waterhouse Coopers (PwC)
Via email: frank.princi@au.pwc.com

AMR43 - Daily Airborne Asbestos Fibre Monitoring
Westmead Hospital Redevelopment, Hawkesbury Rd, Westmead, NSW

Dear Frank,

Please find as **Attachment 1** the daily airborne asbestos fibre monitoring report for works completed at the Westmead Hospital of Site Project on **30 April 2015**.

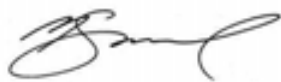
All air monitoring was completed in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003(2005)], with NATA certification applying to all sample collection, handling and analytical procedures.

All reported results were satisfactory and below the minimum action levels for control monitoring as outlined in:

- Work, Health and Safety (2011) Regulation; and
- WorkCover Authority of NSW (2011) Code of Practice – *How to Safely Remove Asbestos*.

If you have any questions regarding these results, please feel free to contact the undersigned on 02 8245 0300 or by email msamuel@jbsg.com.au.

Yours sincerely



Michael Samuel
Licensed Asbestos Assessor (LAA 000157)
JBS&G Australia Pty Ltd

Attachments: 1) Daily Airborne Asbestos Fibre Monitoring Report

Attachment 1 – Daily Air Monitoring Locations Map



Legend:

- Air Monitoring Location
- Health Infrastructure Principal Contractor Site Extent
- Health Infrastructure Principal Contractor Site Areas**
 - AREA A - Westmead Early Works
 - AREA B - Westmead Carparking
 - AREA C - Westmead Pathology Building
 - Western Sydney Health District Principal Contractor Site Extent



Job No: 50369

Client: Health Infrastructure

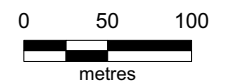
Version: R01 Rev A

Date: 01-May-2015

Drawn By: RF

Checked By: MH

Scale 1:4,500



Coor. Sys. GDA 1994 MGA Zone 56

**Health Infrastructure -
Westmead Hospital Early
Works Consultant**

AIR MONITORING LOCATIONS

FIGURE 1

Attachment 2 – Daily Airborne Asbestos Fibre Monitoring Report

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention:	Michael Samuel
Report	455810-AFC
Project Name	WESTMEAD
Project ID	50369
Received Date	Apr 30, 2015
Date Reported	Apr 30, 2015

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Mini Buck Model M-5: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name WESTMEAD
Project ID 50369
Date Sampled Apr 30, 2015
Report 455810-AFC

Eurofins mgt Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Result (Fibres/mL)
15-Ap23821	16652	G 001	SOUTH PORTION OF OVAL ADJ STAFF CAR PARK	8:00	12:00	2.0	2.0	2.0	< 0.01
15-Ap23822	16702	G 002	EAST PORTION OF OVAL ADJ CHILD CARE	8:03	12:03	2.0	2.0	2.0	< 0.01
15-Ap23823	16665	SKC 144	WEST PORTION OF OVAL ADJ REDBANK HOUSE	8:06	12:06	2.0	2.0	2.0	< 0.01
15-Ap23824	16658	SKC 220	SW PORTION OF OVAL ADJ REDBANK HOUSE	8:09	12:09	2.0	2.0	2.0	< 0.01
15-Ap23825	94581	BLANK	BLANK			--	--	--	0 fibres / 100 field

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8010	Sydney	Apr 30, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WESTMEAD
Project ID: 50369

Order No.:
Report #: 455810
Phone: 02 8245 0300
Fax:

Received: Apr 30, 2015 1:35 PM
Due: Apr 30, 2015
Priority: Same day
Contact Name: Michael Samuel

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos (concentration of fibres in air)
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
16652	Apr 30, 2015		Air	S15-Ap23821	X
16702	Apr 30, 2015		Air	S15-Ap23822	X
16665	Apr 30, 2015		Air	S15-Ap23823	X
16658	Apr 30, 2015		Air	S15-Ap23824	X
94581	Apr 30, 2015		Air	S15-Ap23825	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Volume Measurement : , JBS & G Australia (NSW & WA) P/L, has been trained by Eurofins | mgt and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] methodology. Sampling pumps used by JBS & G Australia (NSW & WA) P/L were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson

National 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

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

JBS&G (50369-100463)

04 May 2015

Health Infrastructure NSW
c/- Frank Princi
Price Waterhouse Coopers (PwC)
Via email: frank.princi@au.pwc.com

AMR44 - Daily Airborne Asbestos Fibre Monitoring
Westmead Hospital Redevelopment, Hawkesbury Rd, Westmead, NSW

Dear Frank,

Please find as **Attachment 1** the daily airborne asbestos fibre monitoring report for works completed at the Westmead Hospital of Site Project on **01 May 2015**.

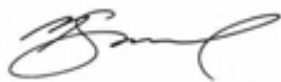
All air monitoring was completed in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003(2005)], with NATA certification applying to all sample collection, handling and analytical procedures.

All reported results were satisfactory and below the minimum action levels for control monitoring as outlined in:

- Work, Health and Safety (2011) Regulation; and
- WorkCover Authority of NSW (2011) Code of Practice – *How to Safely Remove Asbestos*.

If you have any questions regarding these results, please feel free to contact the undersigned on 02 8245 0300 or by email msamuel@jbsg.com.au.

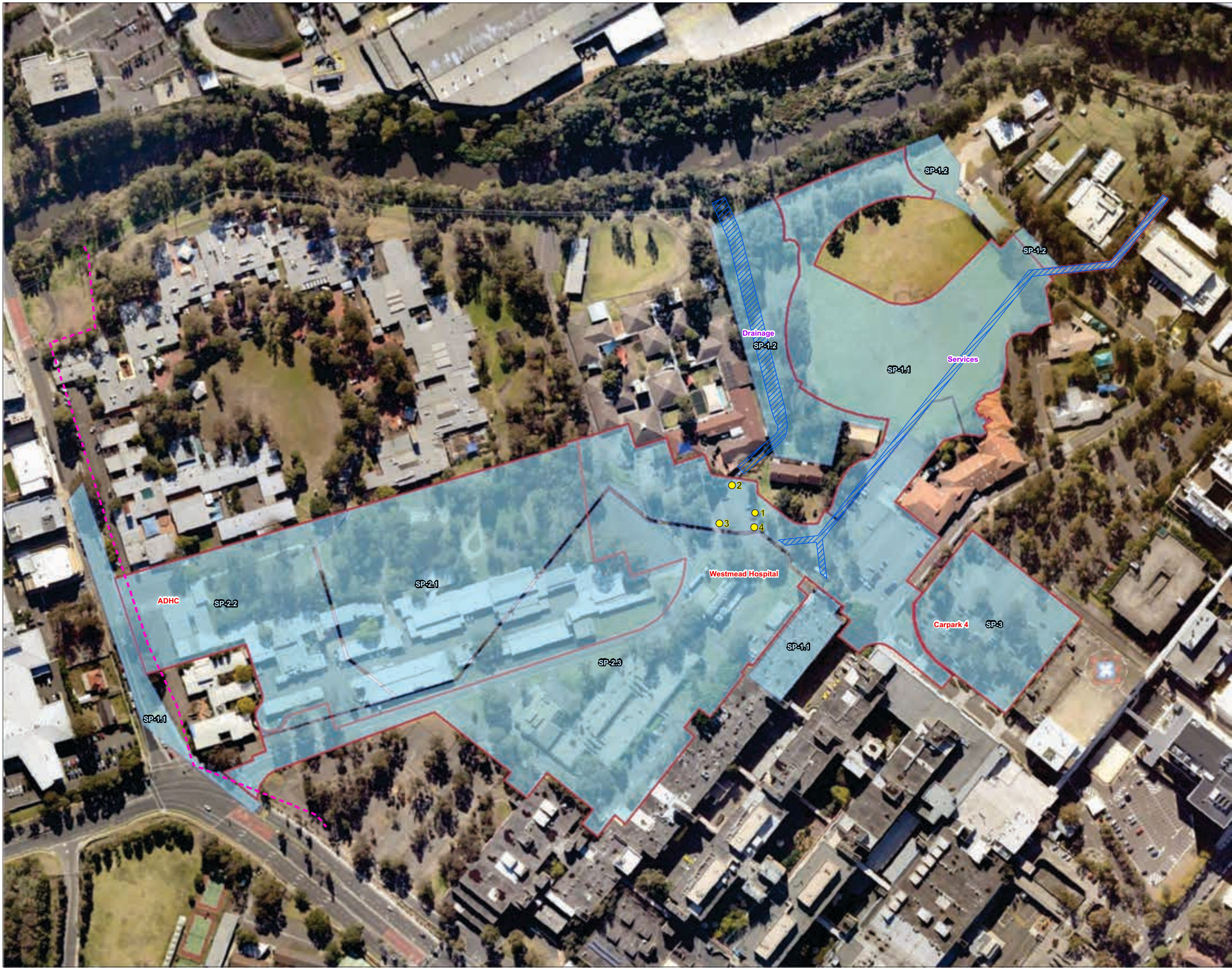
Yours sincerely



Michael Samuel
Licensed Asbestos Assessor (LAA 000157)
JBS&G Australia Pty Ltd

Attachments: 1) Daily Airborne Asbestos Fibre Monitoring Report

Attachment 1 – Daily Air Monitoring Locations Map



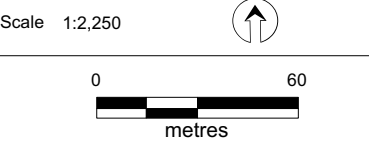
- Legend:**
- Sewer
 - Boundary_Trench
 - Boundary_Seperable Portions
 - Boundary_Assessment Area
 - 1 Air Monitoring Locations



Job No: 50369

Client: Health Infrastructure

Version: Figures	Date: 01-May-2015
Drawn By: LR	Checked By: MH



Coord. Sys. GDA 1994 MGA Zone 56

**Health Infrastructure -
Westmead Hospital Early
Works Consultant**

**AIR MONITORING SAMPLE
LOCATIONS**

FIGURE 1:

Attachment 2 – Daily Airborne Asbestos Fibre Monitoring Report

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: Michael Samuel
Report 455951-AFC
Project Name WESTMEAD 50369
Received Date May 01, 2015
Date Reported May 01, 2015

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Mini Buck Model M-5: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name WESTMEAD 50369
Project ID
Date Sampled May 01, 2015
Report 455951-AFC

Eurofins mgt Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Result (Fibres/mL)
15-My00666	91319	SKC 007 117	SE PORTION OF CAR PARK BEHIND REDBANK HOUSE	7:30	11:30	2.0	2.0	2.0	< 0.01
15-My00667	94596	SKC 142	NORTH PORTION OF CAR PARK BEHIND REDBANK HOUSE	7:33	11:33	2.0	2.0	2.0	< 0.01
15-My00668	94568	SKC 221	SW PORTION OF CAR PARK ADJ EAST OF ADHL BUILDING	7:36	11:36	2.0	2.0	2.0	< 0.01
15-My00669	94976	SKC 223	SE PORTION OF ADHL BUILDING ALONG INSTITUTE RD	7:39	11:39	2.0	2.0	2.0	< 0.01
15-My00670	94565	BLANK	BLANK			--	--	--	0 fibres / 100 field

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8010	Sydney	May 01, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WESTMEAD 50369

Order No.:
Report #: 455951
Phone: 02 8245 0300
Fax:

Received: May 1, 2015 12:35 PM
Due: May 1, 2015
Priority: Same day
Contact Name: Michael Samuel

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos (concentration of fibres in air)
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
91319	May 01, 2015	11:30AM	Air	S15-My00666	X
94596	May 01, 2015	11:33AM	Air	S15-My00667	X
94568	May 01, 2015	11:36AM	Air	S15-My00668	X
94976	May 01, 2015	11:39AM	Air	S15-My00669	X
94565	May 01, 2015		Air	S15-My00670	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Volume Measurement : MOB, JBS & G Australia (NSW & WA) P/L, has been trained by Eurofins | mgt and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] methodology. Sampling pumps used by JBS & G Australia (NSW & WA) P/L were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson

National 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

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

JBS&G (50369-100478)

05 May 2015

Health Infrastructure NSW
c/- Frank Princi
Price Waterhouse Coopers (PwC)
Via email: frank.princi@au.pwc.com

AMR45 - Daily Airborne Asbestos Fibre Monitoring
Westmead Hospital Redevelopment, Hawkesbury Rd, Westmead, NSW

Dear Frank,

Please find as **Attachment 1** the daily airborne asbestos fibre monitoring report for works completed at the Westmead Hospital of Site Project on **02 May 2015**.

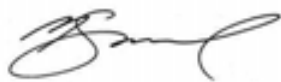
All air monitoring was completed in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003(2005)], with NATA certification applying to all sample collection, handling and analytical procedures.

All reported results were satisfactory and below the minimum action levels for control monitoring as outlined in:

- Work, Health and Safety (2011) Regulation; and
- WorkCover Authority of NSW (2011) Code of Practice – *How to Safely Remove Asbestos*.

If you have any questions regarding these results, please feel free to contact the undersigned on 02 8245 0300 or by email msamuel@jbsg.com.au.

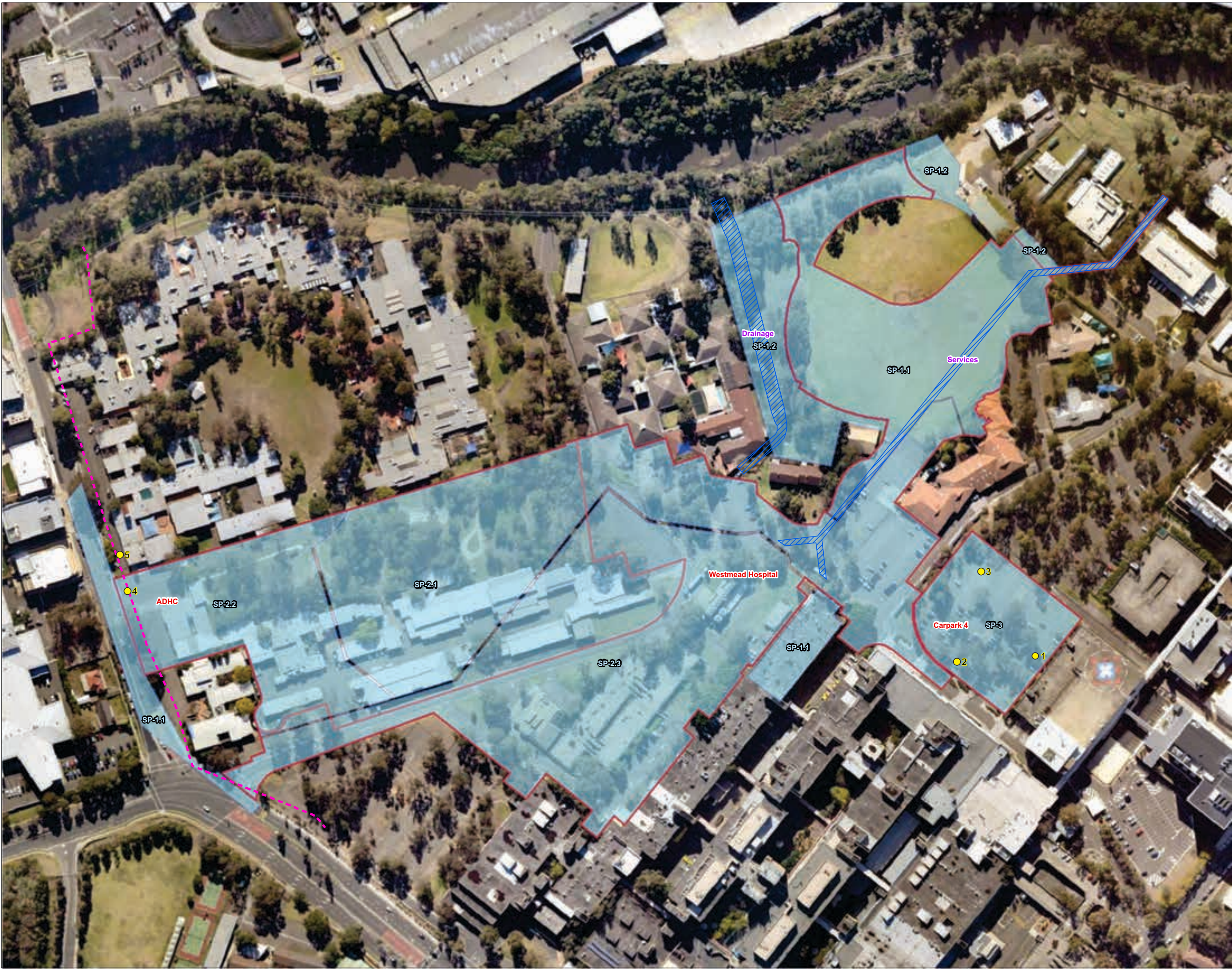
Yours sincerely



Michael Samuel
Licensed Asbestos Assessor (LAA 000157)
JBS&G Australia Pty Ltd

Attachments: 1) Daily Airborne Asbestos Fibre Monitoring Report

Attachment 1 – Daily Air Monitoring Locations Map



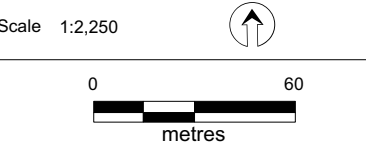
- Legend:**
- Sewer
 - Boundary_Trench
 - Boundary_Seperable Portions
 - Boundary_Assessment Area
 - 1 Air Monitoring Locations



Job No: 50369

Client: Health Infrastructure

Version: Figures	Date: 02- May-2015
Drawn By: LR	Checked By: MH



Coord. Sys. GDA 1994 MGA Zone 56

**Health Infrastructure -
Westmead Hospital Early
Works Consultant**

**AIR MONITORING SAMPLE
LOCATIONS**

FIGURE 1:

Attachment 2 – Daily Airborne Asbestos Fibre Monitoring Report

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: Michael Samuel
Report 456198-V2-AFC
Project Name WESTMEAD
Project ID 50369
Received Date May 04, 2015
Date Reported May 04, 2015

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Mini Buck Model M-5: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name WESTMEAD
Project ID 50369
Date Sampled May 04, 2015
Report 456198-V2-AFC

Eurofins mgt Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Result (Fibres/mL)
15-My02562	94527	SKC 142	SE PORTION OF CARPARK 4 ADJ BORE HOLE WORKS	7:00	11:00	2.0	2.0	2.0	< 0.01
15-My02563	94569	SKC 221	SW PORTION OF CARPARK 4 ADJ BORE HOLE WORKS	7:03	11:03	2.0	2.0	2.0	< 0.01
15-My02564	94477	SKC 223	CENTRAL PORTION OF CARPARK 4 ADJ BORE HOLE WORKS	7:06	11:06	2.0	2.0	2.0	< 0.01
15-My02565	94595	SKC 218	SE PORTION OF ADHL BUILDING ALONG INSTITUTE RD	7:11	11:11	2.0	2.0	2.0	< 0.01
15-My02566	94561	SKC 478	SW PORTION OF ADHL BUILDING ALONG INSTITUTE RD	7:14	11:14	2.0	2.0	2.0	< 0.01
15-My02567	94604	BLANK	BLANK			--	--	--	0 fibres / 100 field

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8010	Sydney	May 04, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WESTMEAD
Project ID: 50369

Order No.:
Report #: 456198
Phone: 02 8245 0300
Fax:

Received: May 4, 2015 1:00 PM
Due: May 4, 2015
Priority: Same day
Contact Name: Michael Samuel

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos (concentration of fibres in air)
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
94527	May 04, 2015	11:00AM	Air	S15-My02562	X
94569	May 04, 2015	11:03AM	Air	S15-My02563	X
94477	May 04, 2015	11:06AM	Air	S15-My02564	X
94595	May 04, 2015	11:11AM	Air	S15-My02565	X
94561	May 04, 2015	11:14AM	Air	S15-My02566	X
94604	May 04, 2015		Air	S15-My02567	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substantial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Volume Measurement : , JBS & G Australia (NSW & WA) P/L, has been trained by Eurofins | mgt and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] methodology. Sampling pumps used by JBS & G Australia (NSW & WA) P/L were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Report amended to reflect corrected pump ID.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson

National 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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JBS&G (50369-100479)

05 May 2015

Health Infrastructure NSW
c/- Frank Princi
Price Waterhouse Coopers (PwC)
Via email: frank.princi@au.pwc.com

AMR46 - Daily Airborne Asbestos Fibre Monitoring
Westmead Hospital Redevelopment, Hawkesbury Rd, Westmead, NSW

Dear Frank,

Please find as **Attachment 1** the daily airborne asbestos fibre monitoring report for works completed at the Westmead Hospital of Site Project on **04 May 2015**.

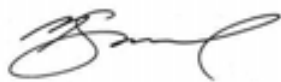
All air monitoring was completed in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003(2005)], with NATA certification applying to all sample collection, handling and analytical procedures.

All reported results were satisfactory and below the minimum action levels for control monitoring as outlined in:

- Work, Health and Safety (2011) Regulation; and
- WorkCover Authority of NSW (2011) Code of Practice – *How to Safely Remove Asbestos*.

If you have any questions regarding these results, please feel free to contact the undersigned on 02 8245 0300 or by email msamuel@jbsg.com.au.

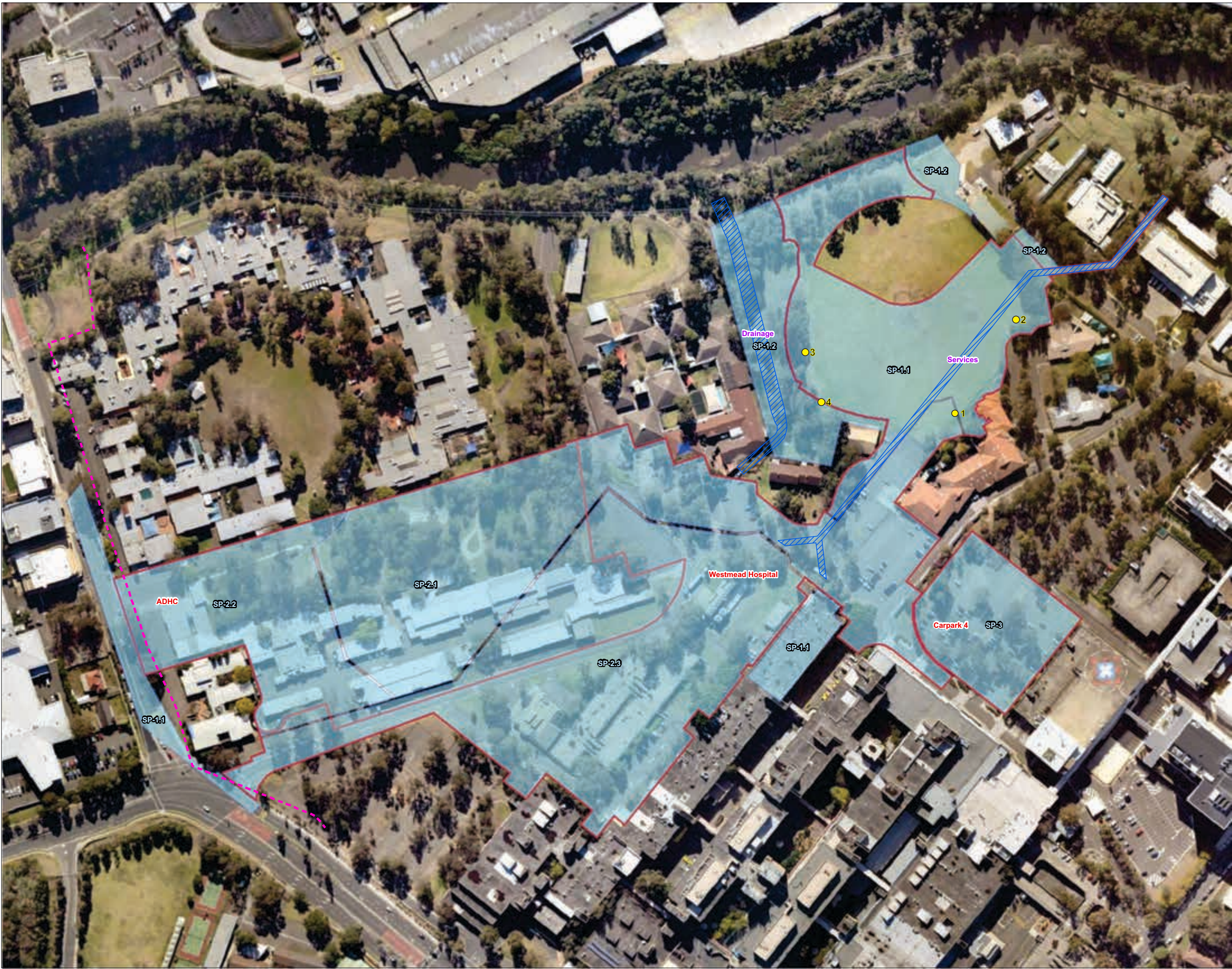
Yours sincerely



Michael Samuel
Licensed Asbestos Assessor (LAA 000157)
JBS&G Australia Pty Ltd

Attachments: 1) Daily Airborne Asbestos Fibre Monitoring Report

Attachment 1 – Daily Air Monitoring Locations Map



- Legend:**
- Sewer
 - Boundary_Trench
 - Boundary_Seperable Portions
 - Boundary_Assessment Area
 - 1 Air Monitoring Locations



Job No: 50369	
Client: Health Infrastructure	
Version: Figures	Date: 04- May-2015
Drawn By: LR	Checked By: MH

Scale 1:2,250

0 60 metres

Coord. Sys. GDA 1994 MGA Zone 56

Health Infrastructure -
Westmead Hospital Early
Works Consultant

AIR MONITORING SAMPLE
LOCATIONS

FIGURE 1:

Attachment 2 – Daily Airborne Asbestos Fibre Monitoring Report

Certificate of Analysis



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.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: Michael Samuel
Report 456194-AFC
Project Name WESTMEAD
Project ID 50391
Received Date May 04, 2015
Date Reported May 04, 2015

METHODOLOGY:

Asbestos Sampling	Sampling as per the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)]
Pump Calibration	Mini Buck Model M-5: Calibrated against National Institute of Standards & Technology (NIST) SOP 13 Standard Operating Procedure for Calibration of Volumetric Ware, Gravimetric Method utilising a 1000 mL burette with a digital stop watch.
Asbestos Counting	Conducted in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] and in-house Method LTM-ASB-8010.

Project Name WESTMEAD
Project ID 50391
Date Sampled May 04, 2015
Report 456194-AFC

Eurofins mgt Sample No.	Client Sample ID	Pump ID	Location	Start (time)	End (time)	Start Flow Rate (L/min)	End Flow Rate (L/min)	Average Flow Rate (L/min)	Result (Fibres/mL)
15-My02550	94583	SKC 142	SOUTH PORTION OF OVAL ADJ CAR PARK	7:40	11:40	2.0	2.0	2.0	< 0.01
15-My02551	94580	SKC 218	EAST PORTION OF OVAL ADJ CHILD CARE	7:43	11:43	2.0	2.0	2.0	< 0.01
15-My02552	94558	G 001	WEST PORTION OF OVAL ADJ REDBANK HOUSE	7:46	11:46	2.0	2.0	2.0	< 0.01
15-My02553	94537	G 002	SW PORTION OF OVAL ADJ REDBANK HOUSE	7:49	11:49	2.0	2.0	2.0	< 0.01
15-My02554	94578	BLANK	BLANK			--	--	--	0 fibres / 100 field

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8010	Sydney	May 04, 2015	Indefinite

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Project Name: WESTMEAD
Project ID: 50391

Order No.:
Report #: 456194
Phone: 02 8245 0300
Fax:

Received: May 4, 2015 1:00 PM
Due: May 4, 2015
Priority: Same day
Contact Name: Michael Samuel

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					Asbestos (concentration of fibres in air)
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217					X
Brisbane Laboratory - NATA Site # 20794					
External Laboratory					
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
94583	May 04, 2015	11:40AM	Air	S15-My02550	X
94580	May 04, 2015	11:43AM	Air	S15-My02551	X
94558	May 04, 2015	11:46AM	Air	S15-My02552	X
94537	May 04, 2015	11:49AM	Air	S15-My02553	X
94578	May 04, 2015		Air	S15-My02554	X

Eurofins | mgt Internal Quality Control Review and Glossary

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% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
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ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
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AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Volume Measurement : , JBS & G Australia (NSW & WA) P/L, has been trained by Eurofins | mgt and they conducted the sampling in accordance with the National Occupational Health & Safety Commission - Guidance Note on The Membrane Filter Method For Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)] methodology. Sampling pumps used by JBS & G Australia (NSW & WA) P/L were calibrated by Eurofins | mgt and therefore volume measurements contained in this report are traceable back to Eurofins | mgt. Eurofins | mgt are responsible for all data contained in this report.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Authorised by:

Nibha Vaidya

Senior Analyst-Asbestos (NSW)



Glenn Jackson

National 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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Document Status

Rev No.	Author	Reviewer	Approved for Issue		
		Name	Name	Signature	Date
A	Mitchell Hodgins	Charlie Furr	Charlie Furr	Internal Review	27/04/2015
B	Mitchell Hodgins	Charlie Furr	Charlie Furr	Draft for Client Review	29/05/2015
0	Mitchell Hodgins	Charlie Furr	Charlie Furr	Updated to Final from Rev B	06/07/2015

