Field Equipment Calibration and Decontamination

JBS&G

PROJECT NAME: Urban Growth Edmondson Park	**PROJECT NO:** 43008
FIELD DATES: 30/10/13	**FIELD STAFF:** MB + EL

CALIBRATION SUMMARY
EQUIPMENT: PID
CALIBRATION STANDARD: 100ppm Isobutylene.

DATE	TIME	READING (ppm_v)	COMMENTS
31/10/13	0840	Pre 101.2 Post 99.9	ok -
01/11/13	0955	Pre 102.1 Post 100.1	ok.

DECONTAMINATION SUMMARY

EQUIPMENT: _____

1. Was the equipment decontaminated appropriately prior to sampling at each location?	Y	N	NA
2. Was excess soil removed by scraping, brushing or wiping with disposable towels?	Y	N	NA
3. Was the equipment contaminated with grease, tar or similar material? If so, was the equipment steam cleaned or rinsed with pesticide-grade acetone:hexane?	Y Y	N N	NA
4. Was phosphate-free detergent used to wash the equipment?	Y	N	NA
5. Was the equipment rinsed with clean water?	Y	N	NA
6. Was the equipment then rinsed with deionised water?	Y	N	NA
7. Were all sample containers cleaned and acid or solvent washed prior to sample collection?	Y	N	NA

WERE ANY ADDITIONAL DECONTAMINATION MEASURES REQUIRED? PROVIDE DETAILS.

_____

Appendix D – Laboratory Reports and Chain of Custody Documentation

1 of 4 #348304

JBS&G

CHAIN OF CUSTODY

…rding@jbsg.com.au, …uu@jbsg.com.au, mdelandro@jbsg.com.au

PROJECT NO.: 43008
PROJECT NAME: Urban Growth
SEND REPORT TO:
DATE NEEDED BY: Standard
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SEND INVOICE TO: ap@jbsg.com.au

LABORATORY BATCH NO.: EL & MD
SAMPLERS
PHONE: 02 82450300
EMAIL:
QC LEVEL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	TRH/BTEX X	TPH aliph/arom	TPH Silica gel	Biological	nutrients	PAHs	asbestos	PCBs/OCPs	ASLP	EC	Fe	pH	CEC	Organic Matter	Ammonia	NOTES
TP16 0.1-0.2	S	31/10/13				X																
TP16 0.9-1.0						X																
TP16 1.4-1.5																						
TP16 2.7-2.8										X												
TP15 0.1-0.2						X																
TP15 0.4-0.5						X																
TP15 1.4-1.5																						
1 TP14 0.1-0.2						X	X		X			X	X	X								
TP14 0.4-0.5																						
TP14 0.9-1.0																						
TP14 1.4-1.5						X																
TP14 2.5-2.7																						
TP13 0.1-0.2																						
TP13 0.5-0.6																						
TP13 1.0-1.1																						
TP13 2.1-2.2																						
2 TP12 0.1-0.2						X	X		X			X	X	X								
TP12 0.7-0.8						X																

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200
ENVIROLAB
Job No: 100099
Date Received: 4/11/13
Time Received: 13:05
Received by: JYH
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

RELINQUISHED BY:
NAME: DATE:
OF: JBS&G
NAME: DATE:
OF:

METHOD OF SHIPMENT:
CONSIGNMENT NOTE NO.
TRANSPORT CO.
CONSIGNMENT NOTE NO.
TRANSPORT CO

RECEIVED BY:
NAME: [signature] DATE: 4/11/13
OF: ELS
NAME: DATE:
OF:

FOR RECEIVING LAB USE ONLY:
COOLER SEAL – Yes....... No .... Intact .... Broken ....
COOLER TEMP 10.0 deg C
COOLER SEAL – Yes....... No .... Intact .... Broken ....
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 FormsO13 – Chain of Custody

RECEIVED
01 NOV 2013
BY: Sean O 1/11/13 9:52

Relinq: by Sean O. Eurofins mgt 1/11/13 11:00 for asbestos analysis 3 QS003A

#398243

tharding@jbsg.com.au, cluu@jbsg.com.au, mdelandro@jbsg.com.au

2 of 4 # 398304

JBS&G

CHAIN OF CUSTODY

PROJECT NO.: 43008		LABORATORY BATCH NO.	
PROJECT NAME: Urban Growth		SAMPLERS	
SEND REPORT TO:	SEND INVOICE TO: gng@jbsg.com.au	PHONE: 02 82450300	EMAIL:
DATE NEEDED BY: Standard		QC LEVEL:	

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

	SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	TRH/BTEX	TPH alph/arom	TPH silica gel	Biological	Nutrients	PAHs	asbestos	PCB/OCPs	ASLP	EC	FE	pH	CEC	Organic Matter	ammonia	NOTES
	TP12 1.1-1.2	S	31/10/13																				
	QS003	↓	↓																				
3	QS003A																						
	TP26 0.1-0.2																						
	TP26 0.5-0.6						X																
	TP26 0.9-1.0										X												
	TP26 2.6-2.7																						
	TP25 0.1-0.2																						
4	TP25 0.4-0.5 (0.5-0.6 on bag)						X	X					X	X	X								
	TP25 1.1-1.2																						
	TP25 3.3-3.4																						
5	TP22 0.1-0.2						X	X					X	X	X								
	TP22 0.9-1.0						X																
	TP22 1.7-1.8																						
	TP22 2.7-2.8																						
	TP18 1.6-1.7						X	X	X	X	X	X											
	TP18 1.8-1.9						X	X	X	X	X	X											
	TP22 0.4-0.5																						

RELINQUISHED BY:		METHOD OF SHIPMENT:	RECEIVED BY:		FOR RECEIVING LAB USE ONLY:
NAME:	DATE:	CONSIGNMENT NOTE NO.	NAME: JHu	DATE: 4/11/13	COOLER SEAL – Yes....... No .... Intact .... Broken ....
OF: JBS&G		TRANSPORT CO.	OF: ELS		COOLER TEMP 10 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

RECEIVED
01 NOV 2013
BY: Sean O 1/11/13 9:52

#398243

#398304

3 of 4

JBS&G

thharding@jbsg.com.au, elkiu@jbsg.com.au, mdelanaro@jbsg.com.au

CHAIN OF CUSTODY

PROJECT NO.: 43008
PROJECT NAME: Urban Growth
SEND REPORT TO:
SEND INVOICE TO: gng@jbsg.com.au
DATE NEEDED BY: Standard
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

LABORATORY BATCH NO.:
SAMPLERS: EL & MD
PHONE: 02 82450300
EMAIL:
QC LEVEL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	TPH/BTEX	TPH aliph/arom	TPH silica gel	Biological	Nutrients	PAHs	asbestos	PCBs/OCPs	ASLP	EC	Fe	pH	CEC	organic matter	ammonia	NOTES
TP20 0.1-0.2	S	31/10/13																				
TP20 0.4-0.5						X	X		X			X		X								
TP20 2.4-2.5																						
TP20 3.4-3.5																						
TP21 0.1-0.2						X	X					X		X								
TP21 0.4-0.5						X																
TP21 1.4-1.5																						
TP21 2.9-3.0																						
TP21 3.4-3.5																						
TP19 0.1-0.2						X						X										
TP19 0.4-0.5						X	X	X	X			X	X									
TP19 1.0-1.5																						
TP19 3.9-4.0																						
TP17 0.9-1.0																						
TP17 1.8-1.9																						
TP31 0.1-0.2						X						X										
TP31 0.9-1.0																						
TP31 1.4-1.5																						

RELINQUISHED BY:
NAME: DATE:
OF: JBS&G
NAME: DATE:
OF:

METHOD OF SHIPMENT:
CONSIGNMENT NOTE NO.
TRANSPORT CO.
CONSIGNMENT NOTE NO.
TRANSPORT CO

RECEIVED BY:
NAME: [signature] DATE: 4/11/13
OF: ELS
NAME: DATE:
OF:

FOR RECEIVING LAB USE ONLY:
COOLER SEAL – Yes...... No .... Intact .... Broken ....
COOLER TEMP 10 deg C
COOLER SEAL – Yes...... No .... Intact .... Broken ....
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

RECEIVED
01 NOV 2013
BY: Sean-D 1/11/13 9:52

#398243

398304

4 of 4

JBS&G

tharding@jbsg.com.au
ellal@jbsg.com.au
mdelandro@jbsg.com.au

CHAIN OF CUSTODY

PROJECT NO.: 43008
PROJECT NAME: Urban Growth
SEND REPORT TO:
DATE NEEDED BY: Standard
SEND INVOICE TO: gng@jbsg.com.au
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

LABORATORY BATCH NO.
SAMPLERS: EL * MD.
PHONE: 02 82450300
EMAIL:
QC LEVEL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	TPH/BTEX	TPH aliph/arom	TPH silica gel	Biological	nutrients	PAHs	asbestos	PCBs/OCPs	ASLP	EC	Fe	pH	CEC	organic matter	ammonia	NOTES
TP30_0.1_0.2	S	31/10/13				X																
TP30_0.9-1.0	↓																					
TP30_1.5-1.6	↓	↓																				
Rinsate1	W	31/10/13				X	X					X		X								
Trip S	W	29/10/13					X															
Trip B	W	29/10/13					X															
TP19 1.9-2.0	S	29/10/13								X						X	X	X	X	X		
TP17 0.9-1.0						X	X	X	X	X	X											
TP17-1.8-1.9						X	X	X	X	X	X											

RELINQUISHED BY:
NAME: DATE:
OF: JBS&G
NAME: DATE:
OF:

METHOD OF SHIPMENT:
CONSIGNMENT NOTE NO.
TRANSPORT CO.
CONSIGNMENT NOTE NO.
TRANSPORT CO

RECEIVED BY:
NAME: Phi DATE: 4/11/13
OF: ELS
NAME: DATE:
OF:

FOR RECEIVING LAB USE ONLY:
COOLER SEAL – Yes....... No .... Intact .... Broken ....
COOLER TEMP 10 deg C
COOLER SEAL – Yes....... No .... Intact .... Broken ....
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

RECEIVED
01 NOV 2013
BY: Sean.O 1/11/13 9:52

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

CERTIFICATE OF ANALYSIS 100099

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

Attention: Tom Harding, Ellen Luu

Sample log in details:

Your Reference:	**43008, Urban Growth**
No. of samples:	6 Soils
Date samples received / completed instructions received	04/11/2013 / 04/11/2013

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:	11/11/13 / 11/11/13
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 WA						
Our Reference:	UNITS	100099-1	100099-2	100099-4	100099-5	100099-6
Your Reference	----------	TP14	TP12	TP25	TP22	TP19
Depth	----------	0.1-0.2	0.1-0.2	0.4-0.5	0.1-0.2	0.4-0.5
Date Sampled		31/10/2013	31/10/2013	31/10/2013	31/10/2013	31/10/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	8/11/2013	8/11/2013	8/11/2013	8/11/2013	8/11/2013
Sample mass tested	g	630.27g	601.20g	584.52g	593.55g	A)393.51g B)3.57g
Sample Description	-	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained clayey soil & rocks	A) Brown clay soil, B) fragment
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg	No asbestos detected at reporting limit of 0.1g/kg	No asbestos detected at reporting limit of 0.1g/kg	No asbestos detected at reporting limit of 0.1g/kg	A) Chrysotile asbestos detected B)Chrysotile asbestos detected
Trace Analysis	-	No respirable fibres detected	No respirable fibres detected	No respirable fibres detected	No respirable fibres detected	No respirable fibres detected

Method ID	Methodology Summary
ASB-003	Asbestos ID - Minimum 500mL soil sample was analysed as recommended by "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 as per AS4964-2004.

QUALITY CONTROL Asbestos ID - soils WA	UNITS	PQL	METHOD	Blank
Date analysed	-			[NT]

Client Reference: 43008, Urban Growth

Report Comments:

This report is consistent with the analytical procedures and reporting recommendations in the Western Australian Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009.

Note: All samples analysed as received. However, sample 100099-6 are below the minimum 500mL sample volume as per Western Australia's DOH guidelines.

Sample 100099-6; The supplied sample was sub-sampled (100099-6A & 100099-6B) in order to accurately report the analytical results representative of the entire sample, as per AS4964-2004.

Sample 100099-6; Chrysotile asbestos identified in matted material (total weight 1.1068g). It is estimated that the matted material contains up to 70% asbestos fibres by weight. This calculates to 0.7748g of asbestos fibres, which in 393.51g of soil is 1.97g/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:	Matt Mansfield

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NA: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	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.

tharding@jbsg.com.au
ellu@jbsg.com.au
mdelandro@jbsg.com.au

CHAIN OF CUSTODY

JBS&G

PROJECT NO.:	43008
PROJECT NAME:	Urban growth
SEND REPORT TO:	Tharding SEND INVOICE TO: ap@jbsg.com.au
DATE NEEDED BY:	Standard 5 days
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:	

LABORATORY BATCH NO.	
SAMPLERS	EL & MD
PHONE: 02 82450300	EMAIL:
QC LEVEL:	

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	PAHs	TPH/BTEX	TPH Silica Gel	OCPs/PCBs	Asbestos	ASLP	Biological	Fe	CEC	pH	Organic Matter	Nutrients	TPH / BTEX / PAHs	Ammonia		NOTES
TP29 0.1-0.2	S	1/11/13				x	x	x		x	x											
TP29 0.4-0.5																						
TP29 1.4-1.5																						
TP29 1.9-2.0																						
TP29 2.4-2.5																						
TP29 2.9-3.0														Y	X	X	X					
QS003						Hold																
QS003A						Hold																
TP27 0.1-0.2																						
TP27 0.4-0.5						x	x	x	x													
TP27 0.9-1.0																						
TP27 2.4-2.5																						
TP24 0.1-0.2						x																
TP24 0.4-0.5																						
TP24 1.4-1.5																						
TP24 2.4-2.5																						
TP23 0.1-0.2																						
TP32 0.1-0.2						x	x	x		x												

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: Ellen DATE: 01/11/13	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	OF: Envirolab Mgt 4:15pm	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: Sophie DATE: 05/11	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF: EL	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

Job No: 10279

Envirolab Serv
12 Ashley
Chatswood NSW 2
Ph: (02) 9910 62

Date Received: 5/11
Time Received: 10:30
Received By:
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

IMSO Forms013 – Chain of Custody

tharding@jbsg.com.au
ellen@jbsg.com.au
mdelandro@jbsg.com.au

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 43008
PROJECT NAME: Orbdy Growth
SEND REPORT TO: T Harding
DATE NEEDED BY: 5 day
SEND INVOICE TO: gag@jbsg.com.au
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

LABORATORY BATCH NO.:
SAMPLERS: EE & MP
PHONE: 02 82450300
EMAIL:
QC LEVEL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	TRH/BTEX	PAHs	TRH aliph arom	TRH Silica Gel	Fe	CEC	ASIP	PH	Biological	Nutrients	Ammonia	PCB/OCPs	Organic Matter	asbestos		NOTES
TP35 0.1-0.2	W	4/11/13																				
Rinsate 2	S	↓																				
Trip S	W	29/10/13				X	X	X														
Trip B	W	29/10/13																X				
TP18 0.4-0.5							X															
~~TP29 0.1-0.2~~							X															
TP29 0.9-1																						
QS004																						
QS004A						X	X	X														
QS004A						X	X	X										X				
																		X				Send to Envirolab.
																				X		Send to Pickford

2

RELINQUISHED BY:
NAME: DATE:
OF: JBS&G
NAME: DATE:
OF:

METHOD OF SHIPMENT:
CONSIGNMENT NOTE NO.
TRANSPORT CO.
CONSIGNMENT NOTE NO.
TRANSPORT CO

RECEIVED BY:
NAME: Ellen DATE: 01/11/13 17:15 pm
OF: Envirofus mgt
NAME: Sophie DATE: 05/11
OF: ELS

FOR RECEIVING LAB USE ONLY:
COOLER SEAL – Yes....... No .... Intact .... Broken ....
COOLER TEMP .... deg C
COOLER SEAL – Yes....... No .... Intact .... Broken ....
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

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

CERTIFICATE OF ANALYSIS 100279

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

Attention: T Harding

Sample log in details:

Your Reference:	**43008, Urban Growth**
No. of samples:	2 Soils
Date samples received / completed instructions received	05/11/2013 / 05/11/2013

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:	12/11/13 / 11/11/13
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

vTRH(C6-C10)/BTEXN in Soil		
Our Reference:	UNITS	100279-2
Your Reference	----------	QS004A
Depth	----------	-
Date Sampled		1/11/2013
Type of sample		Soil
Date extracted	-	06/11/2013
Date analysed	-	09/11/2013
TRHC$_6$ - C$_9$	mg/kg	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25
vTPHC$_6$ - C$_{10}$ less BTEX (F1)	mg/kg	<25
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-Xylene	mg/kg	<1
naphthalene	mg/kg	<1
Surrogate aaa-Trifluorotoluene	%	99

svTRH (C10-C40) in Soil		
Our Reference:	UNITS	100279-2
Your Reference	----------	QS004A
Depth	----------	-
Date Sampled		1/11/2013
Type of sample		Soil
Date extracted	-	06/11/2013
Date analysed	-	07/11/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100
TRHC$_{29}$ - C$_{36}$	mg/kg	<100
TRH>C$_{10}$-C$_{16}$	mg/kg	<50
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	<50
TRH>C$_{16}$-C$_{34}$	mg/kg	<100
TRH>C$_{34}$-C$_{40}$	mg/kg	<100
Surrogate o-Terphenyl	%	93

PAHs in Soil		
Our Reference:	UNITS	100279-2
Your Reference	----------	QS004A
Depth	----------	-
Date Sampled		1/11/2013
Type of sample		Soil
Date extracted	-	06/11/2013
Date analysed	-	07/11/2013
Naphthalene	mg/kg	<0.1
Acenaphthylene	mg/kg	<0.1
Acenaphthene	mg/kg	<0.1
Fluorene	mg/kg	<0.1
Phenanthrene	mg/kg	<0.1
Anthracene	mg/kg	<0.1
Fluoranthene	mg/kg	<0.1
Pyrene	mg/kg	<0.1
Benzo(a)anthracene	mg/kg	<0.1
Chrysene	mg/kg	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2
Benzo(a)pyrene	mg/kg	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE
Surrogate p-Terphenyl-d14	%	98

Organochlorine Pesticides in soil		
Our Reference:	UNITS	100279-2
Your Reference	----------	QS004A
Depth	----------	-
Date Sampled		1/11/2013
Type of sample		Soil
Date extracted	-	06/11/2013
Date analysed	-	07/11/2013
HCB	mg/kg	<0.1
alpha-BHC	mg/kg	<0.1
gamma-BHC	mg/kg	<0.1
beta-BHC	mg/kg	<0.1
Heptachlor	mg/kg	<0.1
delta-BHC	mg/kg	<0.1
Aldrin	mg/kg	<0.1
Heptachlor Epoxide	mg/kg	<0.1
gamma-Chlordane	mg/kg	<0.1
alpha-chlordane	mg/kg	<0.1
Endosulfan I	mg/kg	<0.1
pp-DDE	mg/kg	<0.1
Dieldrin	mg/kg	<0.1
Endrin	mg/kg	<0.1
pp-DDD	mg/kg	<0.1
Endosulfan II	mg/kg	<0.1
pp-DDT	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Surrogate TCMX	%	81

PCBs in Soil		
Our Reference:	UNITS	100279-2
Your Reference	----------	QS004A
Depth	----------	-
Date Sampled		1/11/2013
Type of sample		Soil
Date extracted	-	06/11/2013
Date analysed	-	07/11/2013
Arochlor 1016	mg/kg	<0.1
Arochlor 1221	mg/kg	<0.1
Arochlor 1232	mg/kg	<0.1
Arochlor 1242	mg/kg	<0.1
Arochlor 1248	mg/kg	<0.1
Arochlor 1254	mg/kg	<0.1
Arochlor 1260	mg/kg	<0.1
Surrogate TCLMX	%	81

Acid Extractable metals in soil		
Our Reference:	UNITS	100279-2
Your Reference	----------	QS004A
Depth	----------	-
Date Sampled		1/11/2013
Type of sample		Soil
Date digested	-	06/11/2013
Date analysed	-	06/11/2013
Arsenic	mg/kg	6
Cadmium	mg/kg	<0.4
Chromium	mg/kg	10
Copper	mg/kg	18
Lead	mg/kg	14
Mercury	mg/kg	<0.1
Nickel	mg/kg	7
Zinc	mg/kg	42

Moisture		
Our Reference:	UNITS	100279-2
Your Reference	----------	QS004A
Depth	----------	-
Date Sampled		1/11/2013
Type of sample		Soil
Date prepared	-	06/11/2013
Date analysed	-	07/11/2013
Moisture	%	15

Asbestos ID - soils WA		
Our Reference:	UNITS	100279-1
Your Reference	----------	TP29
Depth	----------	0.1-0.2
Date Sampled		1/11/2013
Type of sample		Soil
Date analysed	-	08/11/2013
Sample mass tested	g	647.94g
Sample Description	-	Brown coarse-grained soil
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg
Trace Analysis	-	No respirable fibres detected

Method ID	Methodology Summary
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note Naphthalene is determined from the VOC analysis.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Inorg-008	Moisture content determined by heating at 105+/-5 deg C for a minimum of 12 hours.
ASB-003	Asbestos ID - Minimum 500mL soil sample was analysed as recommended by "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 as per AS4964-2004.

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			06/11/2013	[NT]	[NT]	LCS-4	06/11/2013
Date analysed	-			09/11/2013	[NT]	[NT]	LCS-4	09/11/2013
TRHC$_6$ - C$_9$	mg/kg	25	Org-016	<25	[NT]	[NT]	LCS-4	94%
TRHC$_6$ - C$_{10}$	mg/kg	25	Org-016	<25	[NT]	[NT]	LCS-4	94%
Benzene	mg/kg	0.2	Org-016	<0.2	[NT]	[NT]	LCS-4	105%
Toluene	mg/kg	0.5	Org-016	<0.5	[NT]	[NT]	LCS-4	96%
Ethylbenzene	mg/kg	1	Org-016	<1	[NT]	[NT]	LCS-4	90%
m+p-xylene	mg/kg	2	Org-016	<2	[NT]	[NT]	LCS-4	91%
o-Xylene	mg/kg	1	Org-016	<1	[NT]	[NT]	LCS-4	90%
naphthalene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%		Org-016	108	[NT]	[NT]	LCS-4	101%

QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			06/11/2013	[NT]	[NT]	LCS-4	06/11/2013
Date analysed	-			07/11/2013	[NT]	[NT]	LCS-4	07/11/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	50	Org-003	<50	[NT]	[NT]	LCS-4	110%
TRHC$_{15}$ - C$_{28}$	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-4	115%
TRHC$_{29}$ - C$_{36}$	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-4	134%
TRH>C$_{10}$-C$_{16}$	mg/kg	50	Org-003	<50	[NT]	[NT]	LCS-4	110%
TRH>C$_{16}$-C$_{34}$	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-4	115%
TRH>C$_{34}$-C$_{40}$	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-4	134%
Surrogate o-Terphenyl	%		Org-003	96	[NT]	[NT]	LCS-4	116%

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			06/11/2013	[NT]	[NT]	LCS-4	06/11/2013
Date analysed	-			07/11/2013	[NT]	[NT]	LCS-4	07/11/2013
Naphthalene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-4	103%
Acenaphthylene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-4	101%
Phenanthrene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-4	99%
Anthracene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-4	100%

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Pyrene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-4	101%
Benzo(a)anthracene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-4	90%
Benzo(b+k)fluoranthene	mg/kg	0.2	Org-012 subset	<0.2	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	0.05	Org-012 subset	<0.05	[NT]	[NT]	LCS-4	94%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012 subset	96	[NT]	[NT]	LCS-4	96%
QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			06/11/2013	[NT]	[NT]	LCS-4	06/11/2013
Date analysed	-			07/11/2013	[NT]	[NT]	LCS-4	07/11/2013
HCB	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-4	84%
gamma-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
beta-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-4	922%
Heptachlor	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-4	86%
delta-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-4	87%
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-4	89%
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
pp-DDE	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-4	99%
Dieldrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-4	90%
Endrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-4	82%
pp-DDD	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-4	107%
Endosulfan II	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
pp-DDT	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-4	90%
Methoxychlor	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate TCMX	%		Org-005	82	[NT]	[NT]	LCS-4	80%

QUALITY CONTROL PCBs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			06/11/2013	[NT]	[NT]	LCS-4	06/11/2013
Date analysed	-			07/11/2013	[NT]	[NT]	LCS-4	07/11/2013
Arochlor 1016	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1221	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1232	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1242	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1248	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1254	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	LCS-4	100%
Arochlor 1260	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate TCLMX	%		Org-006	82	[NT]	[NT]	LCS-4	77%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date digested	-			06/11/2013	[NT]	[NT]	LCS-9	06/11/2013
Date analysed	-			06/11/2013	[NT]	[NT]	LCS-9	06/11/2013
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	[NT]	[NT]	LCS-9	97%
Cadmium	mg/kg	0.4	Metals-020 ICP-AES	<0.4	[NT]	[NT]	LCS-9	106%
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	LCS-9	101%
Copper	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	LCS-9	97%
Lead	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	LCS-9	98%
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	[NT]	[NT]	LCS-9	100%
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	LCS-9	100%
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	LCS-9	100%

QUALITY CONTROL Moisture	UNITS	PQL	METHOD	Blank
Date prepared	-			[NT]
Date analysed	-			[NT]
Moisture	%	0.1	Inorg-008	<0.1
QUALITY CONTROL Asbestos ID - soils WA	UNITS	PQL	METHOD	Blank
Date analysed	-			[NT]

Report Comments:

This report is consistent with the analytical procedures and reporting recommendations in the Western Australian Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009.

Asbestos ID was analysed by Approved Identifier: Matt Mansfield
Asbestos ID was authorised by Approved Signatory: Matt Mansfield

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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CERTIFICATE OF ANALYSIS 100696

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

Attention: Tom Harding, Ellen Luu

Sample log in details:

Your Reference:	**43008, Urban Growth**
No. of samples:	1 water
Date samples received / completed instructions received	12/11/13 / 12/11/13

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

Report Details:

Date results requested by: / Issue Date:	19/11/13 / 19/11/13
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

vTRH(C6-C10)/BTEXN in Water		
Our Reference:	UNITS	100696-1
Your Reference	----------	Triplicate 1
Date Sampled	----------	11/11/2013
Type of sample		water
Date extracted	-	12/11/2013
Date analysed	-	13/11/2013
$TRHC_6$ - C_9	µg/L	<10
$TRHC_6$ - C_{10}	µg/L	<10
$TRHC_6$ - C_{10} less BTEX (F1)	µg/L	<10
Benzene	µg/L	<1
Toluene	µg/L	<1
Ethylbenzene	µg/L	<1
m+p-xylene	µg/L	<2
o-xylene	µg/L	<1
Naphthalene	µg/L	<1
Surrogate Dibromofluoromethane	%	109
Surrogate toluene-d8	%	94
Surrogate 4-BFB	%	83

svTRH (C10-C40) in Water Our Reference: Your Reference Date Sampled Type of sample	UNITS ---------- ----------	100696-1 Triplicate 1 11/11/2013 water
Date extracted	-	14/11/2013
Date analysed	-	15/11/2013
TRHC$_{10}$ - C$_{14}$	µg/L	<50
TRHC$_{15}$ - C$_{28}$	µg/L	<100
TRHC$_{29}$ - C$_{36}$	µg/L	<100
TRH>C$_{10}$ - C$_{16}$	µg/L	<50
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	µg/L	<50
TRH>C$_{16}$ - C$_{34}$	µg/L	<100
TRH>C$_{34}$ - C$_{40}$	µg/L	<100
Surrogate o-Terphenyl	%	109

HM in water - dissolved		
Our Reference:	UNITS	100696-1
Your Reference	----------	Triplicate 1
Date Sampled	----------	11/11/2013
Type of sample		water
Date prepared	-	13/11/2013
Date analysed	-	13/11/2013
Arsenic-Dissolved	µg/L	<1
Cadmium-Dissolved	µg/L	<0.1
Chromium-Dissolved	µg/L	<1
Copper-Dissolved	µg/L	<1
Lead-Dissolved	µg/L	<1
Mercury-Dissolved	µg/L	<0.05
Nickel-Dissolved	µg/L	<1
Zinc-Dissolved	µg/L	2

Method ID	Methodology Summary
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-013	Water samples are analysed directly by purge and trap GC-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note Naphthalene is determined from the VOC analysis.
Metals-022 ICP-MS	Determination of various metals by ICP-MS.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			12/11/2013	[NT]	[NT]	LCS-W1	12/11/2013
Date analysed	-			13/11/2013	[NT]	[NT]	LCS-W1	13/11/2013
$TRHC_6$ - C_9	µg/L	10	Org-016	<10	[NT]	[NT]	LCS-W1	99%
$TRHC_6$ - C_{10}	µg/L	10	Org-016	<10	[NT]	[NT]	LCS-W1	99%
Benzene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	93%
Toluene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	95%
Ethylbenzene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	101%
m+p-xylene	µg/L	2	Org-016	<2	[NT]	[NT]	LCS-W1	104%
o-xylene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	104%
Naphthalene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluoromethane	%		Org-016	90	[NT]	[NT]	LCS-W1	88%
Surrogate toluene-d8	%		Org-016	94	[NT]	[NT]	LCS-W1	95%
Surrogate 4-BFB	%		Org-016	82	[NT]	[NT]	LCS-W1	97%

QUALITY CONTROL svTRH (C10-C40) in Water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			14/11/2013	100696-1	14/11/2013 || 14/11/2013	LCS-W4	14/11/2013
Date analysed	-			15/11/2013	100696-1	15/11/2013 || 15/11/2013	LCS-W4	15/11/2013
$TRHC_{10}$ - C_{14}	µg/L	50	Org-003	<50	100696-1	<50 || <50	LCS-W4	91%
$TRHC_{15}$ - C_{28}	µg/L	100	Org-003	<100	100696-1	<100 || <100	LCS-W4	97%
$TRHC_{29}$ - C_{36}	µg/L	100	Org-003	<100	100696-1	<100 || <100	LCS-W4	95%
$TRH{>}C_{10}$ - C_{16}	µg/L	50	Org-003	<50	100696-1	<50 || <50	LCS-W4	91%
$TRH{>}C_{16}$ - C_{34}	µg/L	100	Org-003	<100	100696-1	<100 || <100	LCS-W4	97%
$TRH{>}C_{34}$ - C_{40}	µg/L	100	Org-003	<100	100696-1	<100 || <100	LCS-W4	95%
Surrogate o-Terphenyl	%		Org-003	99	100696-1	109 || 92 || RPD: 17	LCS-W4	87%

QUALITY CONTROL HM in water - dissolved	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			13/11/2013	100696-1	13/11/2013 || 13/11/2013	LCS-W2	13/11/2013
Date analysed	-			13/11/2013	100696-1	13/11/2013 || 13/11/2013	LCS-W2	13/11/2013
Arsenic-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	100696-1	<1 || <1	LCS-W2	102%
Cadmium-Dissolved	µg/L	0.1	Metals-022 ICP-MS	<0.1	100696-1	<0.1 || <0.1	LCS-W2	100%
Chromium-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	100696-1	<1 || <1	LCS-W2	95%
Copper-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	100696-1	<1 || <1	LCS-W2	93%
Lead-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	100696-1	<1 || <1	LCS-W2	99%

Client Reference: 43008, Urban Growth

QUALITY CONTROL HM in water - dissolved	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Mercury-Dissolved	µg/L	0.05	Metals-021 CV-AAS	<0.05	100696-1	<0.05 || [N/T]	LCS-W2	96%
Nickel-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	100696-1	<1 || <1	LCS-W2	99%
Zinc-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	100696-1	2 || 2 || RPD: 0	LCS-W2	100%

QUALITY CONTROL HM in water - dissolved	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	100696-1	13/11/2013
Date analysed	-	[NT]	[NT]	100696-1	13/11/2013
Arsenic-Dissolved	µg/L	[NT]	[NT]	[NR]	[NR]
Cadmium-Dissolved	µg/L	[NT]	[NT]	[NR]	[NR]
Chromium-Dissolved	µg/L	[NT]	[NT]	[NR]	[NR]
Copper-Dissolved	µg/L	[NT]	[NT]	[NR]	[NR]
Lead-Dissolved	µg/L	[NT]	[NT]	[NR]	[NR]
Mercury-Dissolved	µg/L	[NT]	[NT]	100696-1	100%
Nickel-Dissolved	µg/L	[NT]	[NT]	[NR]	[NR]
Zinc-Dissolved	µg/L	[NT]	[NT]	[NR]	[NR]

Report Comments:

TRH Silica Gel clean up and Aliphatic/Aromatic speciation not required as TRH (semivolatile) water was all <PQL.

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

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.

mdelahunty@jbsg.com.au
ellie@jbsg.com.au
tharding@jbsg.com.au

7.4

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 43008	LABORATORY BATCH NO.:
PROJECT NAME: Urban Growth	SAMPLERS: EL & MD
SEND REPORT TO: SEND INVOICE TO:	PHONE: SYDNEY 02 82450300 – PERTH 08 9488 0100 EMAIL:
DATE NEEDED BY: Standard	QC LEVEL: NEPM (2013)

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

Please forward 'triplicate 1' to Envirolab

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	SVOC	TPH	TPH Silica Gel Clean Up & Total Recoverable Hydrocarbons	BTEX/MTBE
Dup1	W	11/11/13				X			X	X
Triplicate1	W					X			X	X
Trip B	W									X
Rinsate1	W					X	X		X	

NOTES:

ENVIROLAB

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 100696

Date Received: 12/11
Time Received: 15:30
Received by: SSK
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: Ellen Lau DATE: 11/11/13	CONSIGNMENT NOTE NO.	NAME: Jean DATE: 11/11	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	OF: mgt 17:00 12°	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF: ECS 12/11	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

tharding@jbsg.com.au
elui@jbsg.com.au
mdelando@jbsg.com.au

PO 1 of 3

#338113

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 43008
PROJECT NAME: Urban Growth
SEND REPORT TO:
SEND INVOICE TO: ors.jbsg.com.au
DATE NEEDED BY: Standard
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

LABORATORY BATCH NO.:
SAMPLERS EL & MD.
PHONE: 02 82450300 EMAIL:
QC LEVEL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	TRH/BTEX	TPH Aliphatic/Aromatic	TPH Silica Gel	Biological	Nutrients	PAHs	Asbestos	PCB/OCP	ASLP	EC	pH	CEC	Organic Matter	Ammonia	NOTES
TP01 0.1-0.2	S	30/10/13				X				X		X									TPH aliphatic/aromatic split
TP01 0.6-0.7												X				X	X	X	X	X	
TP01 1.4-1.5										X											
TP01 1.9-2.0									X												
TP02 0.1-0.2				Combo 5A →		X	X					X	X	X		X	X	X	X	X	Biological = E coli, Salmonella, faecal @ 8bins
TP02 0.4-0.5																					
TP02 0.9-1.0																					
TP02 1.4-1.5																					
TP02 3.4-3.5																					
TP03 0.1-0.2						X						X	X	X							
TP03 0.4-0.5																					
TP03 1.9-2.0																					
TP03 4.3-4.4																					
TP04 0.1-0.2				Combo 5 →		X	X					X		X							
TP04 0.6-0.7																					
TP04 1.2-1.3						X	X			X	X	X								X	Ammonia odour
TP04 3.6-3.7	↓	↓	12pm				X		X			X									bacteria

RELINQUISHED BY:
NAME: M. Delando DATE: 30.10.13
OF: JBS&G
NAME: DATE:
OF:

METHOD OF SHIPMENT:
CONSIGNMENT NOTE NO.
TRANSPORT CO.
CONSIGNMENT NOTE NO.
TRANSPORT CO

RECEIVED BY:
NAME: Ellen Ng DATE: 31/10/13
OF: EFMgt 11:20
NAME: DATE:
OF:

FOR RECEIVING LAB USE ONLY:
COOLER SEAL - Yes.... No.... Intact ..... Broken .....
COOLER TEMP : .... deg C
COOLER SEAL - Yes..... No..... Intact ..... Broken .....
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

thardiny@jbsg.com.au
elui@jbsg.com.au
mdelandro@jbsg.com.au

pg 2 of 3

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 43005	LABORATORY BATCH NO.
PROJECT NAME: Urban Growth	SAMPLERS EL + MD
SEND REPORT TO: SEND INVOICE TO:	PHONE: 02 82450300 EMAIL:
DATE NEEDED BY:	QC LEVEL:

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	TPH/BTEX	PAHs	TPH aliph/arom	TPH Silica	Biological	nutrients	asbestos	PCB/OCPS	AsIP	EC	Cl	pH	CEC	organic matter	ammonia	NOTES
TP05 0.1-0.2	S ↓	30/10/13 ↓				X		X					X									
TP05 0.6-0.7																						
TP05 1.1-1.2																						
TP05 3.9-4.0																						
QS001				Combo 5A →		X	X	X					X	X								
QS001A						X	X	X					X	X								SECONDARY LAB
TP06 0.1-0.2						X		X					X	X								
TP06 0.4-0.5																						
TP06 1.4-1.5																						
TP06 2.4-2.5																						
TP07 0.1-0.2						X		X														
TP07 0.4-0.5																						
TP07 1.4-1.5																						
TP07 3.4-3.5				Combo 2 →		X	X	X														
TP08 0.1-0.2						X		X					X			X	X	X	X	X		
TP08 1.5-1.6																X	X	X	X	X		
TP08 2.4-2.5																						

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: M Delandro DATE: 30/10/13 OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: [illegible] OF: Envirolab DATE: 31/10/13 11:20	COOLER SEAL – Yes ..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: DATE: OF:	COOLER SEAL – Yes ..... No ..... Intact ..... Broken ..... 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

thardinge@jbsg.com.au
elliu@gbsg.com.au
mdelahdno@jbsg.com.au

pg 3 of 3

#398113

JBS&G

CHAIN OF CUSTODY

PROJECT NO.: 43005
PROJECT NAME: Urban Growth
SEND REPORT TO:
DATE NEEDED BY:
SEND INVOICE TO: gng@gmaill.com

LABORATORY BATCH NO.
SAMPLERS: EL & MP.
PHONE: 02 82450300
EMAIL:
QC LEVEL:

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	TPH/BTEX	TPH aliph/arom	TPH silica gel	Biological	nutrients	PAHs	asbestos	PCB/OPPs	ASLP	EC	Fe	pH	CEC	organic matter	ammonia	NOTES
TP09 0.1-0.2	S	30/10/13				X	X	X	X	X		X		X								
TP09 0.4-0.5	↓	↓																				
TP09 1.2-1.3																						
QS002				Combo 2 →		X	X					X										
QS002A.						X	X					X										SECONDARY LAB.
TP10 0.1-0.2						X						X	X									
TP10 0.4-0.5																						
TP10 2.3-2.4																						
TP11 0.1-0.2						X						X		X								
TP11 0.6-0.7																						
TP11 1.9-2.0						X	X															
TP09 1.5-1.6.	↓	↓																				
TB	↓	29/10/13																				
TS	↓.	29/10/13																				

RELINQUISHED BY:
NAME: M. Delandro DATE: 30/10/13.
OF: JBS&G
NAME: DATE:
OF:

METHOD OF SHIPMENT:
CONSIGNMENT NOTE NO.
TRANSPORT CO.
CONSIGNMENT NOTE NO.
TRANSPORT CO

RECEIVED BY:
NAME: Ellen Ing DATE: 31/10/13 11:20
OF: EF/mgt
NAME: DATE:
OF:

FOR RECEIVING LAB USE ONLY:
COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
COOLER TEMP ..... deg C
COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
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

From: Thomas Harding [mailto:THarding@jbsg.com.au]
Sent: Thursday, 31 October 2013 1:09 PM
To: Jean Heng
Cc: Michelle Delandro
Subject: RE: Ed Park Samples

Jean,

Nitrogens (speciated - includes ammonia), sulphur, phosphorous & anions

Can you please place TP08 (2.5) on for nutrients as well.

Thank you

398113

Tom

Tom Harding | Hydrogeologist | JBS&G
Sydney | Melbourne | Adelaide | Perth | Brisbane
Level 1, 50 Margaret Street Sydney NSW 2000
T: 02 8245 0300 | M: 0418 560 381 | www.jbsg.com.au
Contaminated Land | Groundwater Remediation | Auditing and Compliance | Assessments and Approvals | **Occupational Hygiene and Monitoring**

Food & Pharmaceutical

EUROFINS ENVIRONMENT TESTING AUSTRALIA P/L
UNIT F3 PARK VIEW BUILDING
16 MARS ROAD
LANE COVE NSW, 2066

Attention: **Jean Heng**

CERTIFICATE OF ANALYSIS

Our Ref No: FS1333326 **Your Ref:** 13-814-398113

Report Date: 07 Nov 2013. Project:

Overall Description: Soil Samples
Samples Received: 31 Oct 2013 at 14:48 hrs.
Testing Commenced: 01 Nov 2013 at 15:00 hrs.

This report cannot be reproduced except in full, without written approval from the laboratory.
Samples tested as received into the laboratory.

Sample Details: Test Description		Results	Units	Site
001 Client ID: TP01 1.9-2.0 Eurofin/MGT ID: Oc23944 (NATA Accredited)				
WM0001	Salmonella spp	N/D	in 25g	NSW
WM0010	E. coli	<2	MPN/g	NSW
WM0010	Faecal Coliforms	<2	MPN/g	NSW
002 Client ID: TP04 3.6-3.7 Eurofin/MGT ID: Oc23991 (NATA Accredited)				
WM0001	Salmonella spp	N/D	in 25g	NSW
WM0010	E. coli	<2	MPN/g	NSW
WM0010	Faecal Coliforms	<2	MPN/g	NSW
003 Client ID: TP09 0.1-0.2 Eurofin/MGT ID: Oc24009 (NATA Accredited)				
WM0001	Salmonella spp	N/D	in 25g	NSW
WM0010	E. coli	<2	MPN/g	NSW
WM0010	Faecal Coliforms	<2	MPN/g	NSW

Signatories

This document has been electronically signed by the authorized signatories indicated below.
Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Tina Papadopoulos	Laboratory Manager - Microbiology	Water Microbiology

NATA
WORLD RECOGNISED ACCREDITATION

General Comments

10/2-8 South Street, Rydalmere NSW 2116 Phone: +61 2 8832 7500 Fax: +61 2 9898 3472
Food & Pharmaceutical. An ALS Limited Company

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh Vic 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F6, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Sample Receipt Advice

Company name:	**JBS & G (NSW & WA) Pty Ltd**
Contact name:	Michelle Delandro
Client job number:	URBAN GROWTH 43008
COC number:	Not provided
Turn around time:	6 Day
Date/Time received:	Oct 31, 2013 11:20 AM
Eurofins | mgt reference:	**398113**

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 : 3 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.

☑ Organic samples had Teflon liners.

☑ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Notes

Samples QS001A & QS002A sent to Envirolab as requested | Extra samples received TP03 0.9-1.0 & TP08 0.4-0.5 on HOLD | Jar ID received as TP07 through process of elimination labeled as TP07 3.4-3.5 | Biological analysis conducted by ALS | Organic matter & CEC conducted by Eurofins | mgt Melbourne

Contact notes

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

Jean Heng on Phone : (+61) (2) 9900 8400 or by e.mail: JeanHeng@eurofins.com.au

Results will be delivered electronically via e.mail to Michelle Delandro - MDelandro@jbsg.com.au.

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Oct 31, 2013 11:20 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	398113	**Due:**	Nov 7, 2013
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Thomas Harding
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail	% Moisture	Ammonia (as N)	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Phosphorus	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup (TPH)	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *	JBS&G Suite 2
laboratory where analysis is conducted																												
elbourne Laboratory - NATA Site # 1254 & 14271										X																X		
ydney Laboratory - NATA Site # 18217	X	X	X			X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X
risbane Laboratory - NATA Site # 20794																												
xternal Laboratory				X	X								X															
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																								
201 0.1-0.2	Oct 30, 2013		Soil	S13-Oc23941	X															X		X							
201 0.6-0.7	Oct 30, 2013		Soil	S13-Oc23942	X						X			X	X					X		X					X		
201 1.4-1.5	Oct 30, 2013		Soil	S13-Oc23943						X																			
201 1.9-2.0	Oct 30, 2013		Soil	S13-Oc23944	X			X	X		X			X	X		X											X		
202 0.1-0.2	Oct 30, 2013		Soil	S13-Oc23945	X																									X
202 0.9-1.0	Oct 30, 2013		Soil	S13-Oc23981						X																			
202 1.4-1.5	Oct 30, 2013		Soil	S13-Oc23982						X																			
202 3.4-3.5	Oct 30, 2013		Soil	S13-Oc23983						X																			
203 0.1-0.2	Oct 30, 2013		Soil	S13-Oc23984	X												X	X	X		X								
203 0.4-0.5	Oct 30, 2013		Soil	S13-Oc23985						X																			

eurofins mgt

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Oct 31, 2013 11:20 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	398113	**Due:**	Nov 7, 2013
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Thomas Harding
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	Ammonia (as N)	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Phosphorus	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup (TPH)	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *	JBS&G Suite 2
boratory where analysis is conducted																																
elbourne Laboratory - NATA Site # 1254 & 14271														X																	X	
dney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X
isbane Laboratory - NATA Site # 20794																																
ternal Laboratory								X	X								X															
03 1.9-2.0	Oct 30, 2013		Soil	S13-Oc23986						X																						
03 4.3-4.4	Oct 30, 2013		Soil	S13-Oc23987						X																						
04 0.1-0.2	Oct 30, 2013		Soil	S13-Oc23988	X																											X
04 0.6-0.7	Oct 30, 2013		Soil	S13-Oc23989						X																						
04 1.2-1.3	Oct 30, 2013		Soil	S13-Oc23990	X	X	X					X	X			X		X	X	X	X		X	X			X		X			
04 3.6-3.7	Oct 30, 2013		Soil	S13-Oc23991	X			X	X								X				X			X					X			
05 0.1-0.2	Oct 30, 2013		Soil	S13-Oc23992	X																X		X									
05 0.6-0.7	Oct 30, 2013		Soil	S13-Oc23993						X																						
05 1.1-1.2	Oct 30, 2013		Soil	S13-Oc23995						X																						
05 3.9-4.0	Oct 30, 2013		Soil	S13-Oc23996						X																						
3001	Oct 30, 2013		Soil	S13-Oc23997	X																											X

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Oct 31, 2013 11:20 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:** **Phone:** **Fax:**	398113 02 8245 0300	**Due:** **Priority:** **Contact Name:**	Nov 7, 2013 5 Day Thomas Harding
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	Ammonia (as N)	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Phosphorus	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup (TPH)	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *	JBS&G Suite 2
laboratory where analysis is conducted																																
elbourne Laboratory - NATA Site # 1254 & 14271														X																X		
ydney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X		X	X
risbane Laboratory - NATA Site # 20794																																
xternal Laboratory								X	X								X															
206 0.1-0.2	Oct 30, 2013		Soil	S13-Oc23998	X																X	X	X		X							
206 0.4-0.5	Oct 30, 2013		Soil	S13-Oc23999						X																						
206 1.4-1.5	Oct 30, 2013		Soil	S13-Oc24000						X																						
206 2.4-2.5	Oct 30, 2013		Soil	S13-Oc24001						X																						
207 0.1-0.2	Oct 30, 2013		Soil	S13-Oc24002	X																X		X									
207 0.4-0.5	Oct 30, 2013		Soil	S13-Oc24003						X																						
207 1.4-1.5	Oct 30, 2013		Soil	S13-Oc24004						X																						
207 3.4-3.5	Oct 30, 2013		Soil	S13-Oc24005	X																X		X	X					X			
208 0.1-0.2	Oct 30, 2013		Soil	S13-Oc24006	X						X			X	X						X		X								X	
208 1.5-1.6	Oct 30, 2013		Soil	S13-Oc24007	X						X			X	X																X	
208 2.4-2.5	Oct 30, 2013		Soil	S13-Oc24008	X	X	X					X	X			X		X	X	X							X					

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Oct 31, 2013 11:20 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	398113	**Due:**	Nov 7, 2013
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Thomas Harding
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	Ammonia (as N)	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Phosphorus	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup (TPH)	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *	JBS&G Suite 2
aboratory where analysis is conducted																																
elbourne Laboratory - NATA Site # 1254 & 14271														X																X		
ydney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X		X	X
risbane Laboratory - NATA Site # 20794																																
xternal Laboratory								X	X								X															
209 0.1-0.2	Oct 30, 2013		Soil	S13-Oc24009	X			X	X								X									X		X			X	X
209 0.4-0.5	Oct 30, 2013		Soil	S13-Oc24010						X																						
209 1.2-1.3	Oct 30, 2013		Soil	S13-Oc24011						X																						
3002	Oct 30, 2013		Soil	S13-Oc24012	X																X		X	X						X			
210 0.1-0.2	Oct 30, 2013		Soil	S13-Oc24013	X																X		X										
210 0.4-0.5	Oct 30, 2013		Soil	S13-Oc24014						X																							
210 2.3-2.4	Oct 30, 2013		Soil	S13-Oc24015						X																							
211 0.1-0.2	Oct 30, 2013		Soil	S13-Oc24016	X																X	X	X		X								
211 0.6-0.7	Oct 30, 2013		Soil	S13-Oc24017						X																							
211 1.9-2.0	Oct 30, 2013		Soil	S13-Oc24018	X																		X	X						X			
209 1.5-1.6	Oct 30, 2013		Soil	S13-Oc24020						X																							

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Oct 31, 2013 11:20 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	398113	**Due:**	Nov 7, 2013
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Thomas Harding
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	Ammonia (as N)	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Phosphorus	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup (TPH)	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *	JBS&G Suite 2
boratory where analysis is conducted																																	
elbourne Laboratory - NATA Site # 1254 & 14271														X																	X		
ydney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X
isbane Laboratory - NATA Site # 20794																																	
xternal Laboratory								X	X								X																
3	Oct 29, 2013		Soil	S13-Oc24021																				X									
5	Oct 29, 2013		Soil	S13-Oc24022																				X									
202 0.4-0.5	Oct 30, 2013		Soil	S13-Oc24036						X																							
203 0.9-1.0	Oct 30, 2013		Soil	S13-Oc24169						X																							
208 0.4-0.5	Oct 30, 2013		Soil	S13-Oc24170						X																							

eurofins | mgt

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

Attention: **Michelle Delandro**

Report **398113-S**
Client Reference URBAN GROWTH 43008
Received Date Oct 31, 2013

Client Sample ID			**TP01 0.1-0.2**	**TP01 0.6-0.7**	**TP01 1.9-2.0**	**TP02 0.1-0.2**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S13-Oc23941**	**S13-Oc23942**	**S13-Oc23944**	**S13-Oc23945**
Date Sampled			**Oct 30, 2013**	**Oct 30, 2013**	**Oct 30, 2013**	**Oct 30, 2013**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C10-C14	20	mg/kg	-	-	-	< 20
TRH C15-C28	50	mg/kg	-	-	-	< 50
TRH C29-C36	50	mg/kg	-	-	-	86
TRH C10-36 (Total)	50	mg/kg	-	-	-	86
BTEX						
Benzene	0.1	mg/kg	-	-	-	< 0.1
Toluene	0.1	mg/kg	-	-	-	< 0.1
Ethylbenzene	0.1	mg/kg	-	-	-	< 0.1
m&p-Xylenes	0.2	mg/kg	-	-	-	< 0.2
o-Xylene	0.1	mg/kg	-	-	-	< 0.1
Xylenes - Total	0.3	mg/kg	-	-	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	-	-	112
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	-	-	-	< 0.5
TRH C6-C10	20	mg/kg	-	-	-	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	-	-	< 20
TRH >C10-C16	50	mg/kg	-	-	-	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	-	-	< 50
TRH >C16-C34	100	mg/kg	-	-	-	< 100
TRH >C34-C40	100	mg/kg	-	-	-	< 100
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP01 0.1-0.2 Soil S13-Oc23941 Oct 30, 2013	TP01 0.6-0.7 Soil S13-Oc23942 Oct 30, 2013	TP01 1.9-2.0 Soil S13-Oc23944 Oct 30, 2013	TP02 0.1-0.2 Soil S13-Oc23945 Oct 30, 2013
Polycyclic Aromatic Hydrocarbons						
Pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Total PAH	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(a)pyrene TEQ*	0.5	mg/kg	0.6	0.6	-	0.6
2-Fluorobiphenyl (surr.)	1	%	87	88	-	92
p-Terphenyl-d14 (surr.)	1	%	91	89	-	96
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	-	-	< 0.1
4.4'-DDD	0.05	mg/kg	-	-	-	< 0.05
4.4'-DDE	0.05	mg/kg	-	-	-	< 0.05
4.4'-DDT	0.05	mg/kg	-	-	-	< 0.05
a-BHC	0.05	mg/kg	-	-	-	< 0.05
Aldrin	0.05	mg/kg	-	-	-	< 0.05
b-BHC	0.05	mg/kg	-	-	-	< 0.05
d-BHC	0.05	mg/kg	-	-	-	< 0.05
Dieldrin	0.05	mg/kg	-	-	-	< 0.05
Endosulfan I	0.05	mg/kg	-	-	-	< 0.05
Endosulfan II	0.05	mg/kg	-	-	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	-	-	< 0.05
Endrin	0.05	mg/kg	-	-	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	-	-	< 0.05
Endrin ketone	0.05	mg/kg	-	-	-	< 0.05
g-BHC (Lindane)	0.05	mg/kg	-	-	-	< 0.05
Heptachlor	0.05	mg/kg	-	-	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	-	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	-	-	< 0.05
Methoxychlor	0.2	mg/kg	-	-	-	< 0.2
Toxaphene	1	mg/kg	-	-	-	< 1
Dibutylchlorendate (surr.)	1	%	-	-	-	106
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	107
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1232	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1242	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1248	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1254	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1260	0.5	mg/kg	-	-	-	< 0.5
Total PCB	0.5	mg/kg	-	-	-	< 0.5
Dibutylchlorendate (surr.)	1	%	-	-	-	106
Organic Matter %	0.01	% w/w	-	4.0	3.2	-
pH (1:5 Aqueous extract)	0.1	units	-	7.3	8.7	-
% Moisture	0.1	%	8.4	9.8	13	9.5
Cation Exchange Capacity						
Conductivity (1:5 aqueous extract at 25°C)	10	uS/cm	-	230	720	-
Cation Exchange Capacity	0.05	meq/100g	-	30	33	-
Heavy Metals						
Arsenic	2	mg/kg	5.8	6.5	-	10
Cadmium	0.4	mg/kg	< 0.4	< 0.4	-	0.4

Client Sample ID			TP01 0.1-0.2	TP01 0.6-0.7	TP01 1.9-2.0	TP02 0.1-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S13-Oc23941	S13-Oc23942	S13-Oc23944	S13-Oc23945
Date Sampled			Oct 30, 2013	Oct 30, 2013	Oct 30, 2013	Oct 30, 2013
Test/Reference	LOR	Unit				
Heavy Metals						
Chromium	5	mg/kg	12	9.4	-	20
Copper	5	mg/kg	15	22	-	17
Iron	5	mg/kg	-	17000	18000	-
Lead	5	mg/kg	12	13	-	15
Mercury	0.05	mg/kg	0.05	0.12	-	0.10
Nickel	5	mg/kg	6.6	6.0	-	9.1
Zinc	5	mg/kg	24	26	-	21
E.Coli	1	MPN/g	-	-	see attached	-
Faecal Coliforms	1	MPN/g	-	-	see attached	-
Salmonella	1	org/g	-	-	see attached	-

Client Sample ID			TP03 0.1-0.2	TP04 0.1-0.2	TP04 1.2-1.3	TP04 3.6-3.7
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S13-Oc23984	S13-Oc23988	S13-Oc23990	S13-Oc23991
Date Sampled			Oct 30, 2013	Oct 30, 2013	Oct 30, 2013	Oct 30, 2013
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	-	< 20	< 20
TRH C10-C14	20	mg/kg	-	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	-	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	-	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	-	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	-	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	88	89	119
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	-	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	-	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	-	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	-	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP03 0.1-0.2 Soil S13-Oc23984 Oct 30, 2013	TP04 0.1-0.2 Soil S13-Oc23988 Oct 30, 2013	TP04 1.2-1.3 Soil S13-Oc23990 Oct 30, 2013	TP04 3.6-3.7 Soil S13-Oc23991 Oct 30, 2013
Polycyclic Aromatic Hydrocarbons						
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ*	0.5	mg/kg	0.6	0.6	0.6	0.6
2-Fluorobiphenyl (surr.)	1	%	79	95	94	82
p-Terphenyl-d14 (surr.)	1	%	83	98	86	77
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	-	-
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	-	-
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	-	-
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	-	-
a-BHC	0.05	mg/kg	< 0.05	< 0.05	-	-
Aldrin	0.05	mg/kg	< 0.05	< 0.05	-	-
b-BHC	0.05	mg/kg	< 0.05	< 0.05	-	-
d-BHC	0.05	mg/kg	< 0.05	< 0.05	-	-
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	-	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	-	-
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	-	-
Methoxychlor	0.2	mg/kg	< 0.2	< 0.2	-	-
Toxaphene	1	mg/kg	< 1	< 1	-	-
Dibutylchlorendate (surr.)	1	%	99	109	-	-
Tetrachloro-m-xylene (surr.)	1	%	101	107	-	-
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	< 0.5	< 0.5	-	-
Aroclor-1232	0.5	mg/kg	< 0.5	< 0.5	-	-
Aroclor-1242	0.5	mg/kg	< 0.5	< 0.5	-	-
Aroclor-1248	0.5	mg/kg	< 0.5	< 0.5	-	-
Aroclor-1254	0.5	mg/kg	< 0.5	< 0.5	-	-
Aroclor-1260	0.5	mg/kg	< 0.5	< 0.5	-	-
Total PCB	0.5	mg/kg	< 0.5	< 0.5	-	-
Dibutylchlorendate (surr.)	1	%	99	109	-	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP03 0.1-0.2 Soil S13-Oc23984 Oct 30, 2013	TP04 0.1-0.2 Soil S13-Oc23988 Oct 30, 2013	TP04 1.2-1.3 Soil S13-Oc23990 Oct 30, 2013	TP04 3.6-3.7 Soil S13-Oc23991 Oct 30, 2013
Ammonia (as N)	0.1	mg/kg	-	-	0.1	-
Chloride	10	mg/kg	-	-	13	-
Nitrate (as N)	0.1	mg/kg	-	-	< 0.1	-
Nitrite (as N)	0.1	mg/kg	-	-	< 0.1	-
Sulphate (as S)	10	mg/kg	-	-	< 10	-
Phosphorus	10	mg/kg	-	-	130	-
Sulphur	100	mg/kg	-	-	100	-
% Moisture	0.1	%	8.0	15	24	17
Alkalinity						
Total Alkalinity (as CaCO3)	50	mg/kg	-	-	77	-
Total Nitrogen Set (as N)						
Nitrate & Nitrite (as N)	0.1	mg/kg	-	-	0.1	-
Total Kjeldahl Nitrogen (as N)	10	mg/kg	-	-	880	-
Total Nitrogen (as N)	10	mg/kg	-	-	880	-
Heavy Metals						
Arsenic	2	mg/kg	9.3	13	5.0	-
Cadmium	0.4	mg/kg	0.4	0.7	< 0.4	-
Chromium	5	mg/kg	15	29	9.8	-
Copper	5	mg/kg	16	11	15	-
Lead	5	mg/kg	18	34	14	-
Mercury	0.05	mg/kg	< 0.05	0.06	3.9	-
Nickel	5	mg/kg	16	5.1	7.1	-
Zinc	5	mg/kg	22	21	10	-
E.Coli	1	MPN/g	-	-	-	see attached
Faecal Coliforms	1	MPN/g	-	-	-	see attached
Salmonella	1	org/g	-	-	-	see attached

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP05 0.1-0.2 Soil S13-Oc23992 Oct 30, 2013	QS001 Soil S13-Oc23997 Oct 30, 2013	TP06 0.1-0.2 Soil S13-Oc23998 Oct 30, 2013	TP07 0.1-0.2 Soil S13-Oc24002 Oct 30, 2013
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C10-C14	20	mg/kg	-	< 20	-	-
TRH C15-C28	50	mg/kg	-	< 50	-	-
TRH C29-C36	50	mg/kg	-	< 50	-	-
TRH C10-36 (Total)	50	mg/kg	-	< 50	-	-
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	-	-
Toluene	0.1	mg/kg	-	< 0.1	-	-
Ethylbenzene	0.1	mg/kg	-	< 0.1	-	-
m&p-Xylenes	0.2	mg/kg	-	< 0.2	-	-
o-Xylene	0.1	mg/kg	-	< 0.1	-	-
Xylenes - Total	0.3	mg/kg	-	< 0.3	-	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP05 0.1-0.2 Soil S13-Oc23992 Oct 30, 2013	QS001 Soil S13-Oc23997 Oct 30, 2013	TP06 0.1-0.2 Soil S13-Oc23998 Oct 30, 2013	TP07 0.1-0.2 Soil S13-Oc24002 Oct 30, 2013
BTEX						
4-Bromofluorobenzene (surr.)	1	%	-	87	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	-	< 0.5	-	-
TRH C6-C10	20	mg/kg	-	< 20	-	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	< 20	-	-
TRH >C10-C16	50	mg/kg	-	< 50	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50	-	-
TRH >C16-C34	100	mg/kg	-	< 100	-	-
TRH >C34-C40	100	mg/kg	-	< 100	-	-
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ*	0.5	mg/kg	0.6	0.6	0.6	0.6
2-Fluorobiphenyl (surr.)	1	%	82	89	87	86
p-Terphenyl-d14 (surr.)	1	%	84	87	87	86
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	< 0.1	-
4.4'-DDD	0.05	mg/kg	-	< 0.05	< 0.05	-
4.4'-DDE	0.05	mg/kg	-	< 0.05	< 0.05	-
4.4'-DDT	0.05	mg/kg	-	< 0.05	< 0.05	-
a-BHC	0.05	mg/kg	-	< 0.05	< 0.05	-
Aldrin	0.05	mg/kg	-	< 0.05	< 0.05	-
b-BHC	0.05	mg/kg	-	< 0.05	< 0.05	-
d-BHC	0.05	mg/kg	-	< 0.05	< 0.05	-
Dieldrin	0.05	mg/kg	-	< 0.05	< 0.05	-
Endosulfan I	0.05	mg/kg	-	< 0.05	< 0.05	-
Endosulfan II	0.05	mg/kg	-	< 0.05	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin aldehyde	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin ketone	0.05	mg/kg	-	< 0.05	< 0.05	-
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	< 0.05	-
Heptachlor	0.05	mg/kg	-	< 0.05	< 0.05	-

Client Sample ID			TP05 0.1-0.2	QS001	TP06 0.1-0.2	TP07 0.1-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S13-Oc23992	S13-Oc23997	S13-Oc23998	S13-Oc24002
Date Sampled			Oct 30, 2013	Oct 30, 2013	Oct 30, 2013	Oct 30, 2013
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	< 0.05	-
Methoxychlor	0.2	mg/kg	-	< 0.2	< 0.2	-
Toxaphene	1	mg/kg	-	< 1	< 1	-
Dibutylchlorendate (surr.)	1	%	-	105	129	-
Tetrachloro-m-xylene (surr.)	1	%	-	103	106	-
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	-	< 0.5	< 0.5	-
Aroclor-1232	0.5	mg/kg	-	< 0.5	< 0.5	-
Aroclor-1242	0.5	mg/kg	-	< 0.5	< 0.5	-
Aroclor-1248	0.5	mg/kg	-	< 0.5	< 0.5	-
Aroclor-1254	0.5	mg/kg	-	< 0.5	< 0.5	-
Aroclor-1260	0.5	mg/kg	-	< 0.5	< 0.5	-
Total PCB	0.5	mg/kg	-	< 0.5	< 0.5	-
Dibutylchlorendate (surr.)	1	%	-	105	129	-
% Moisture	0.1	%	13	8.2	9.9	11
Heavy Metals						
Arsenic	2	mg/kg	3.0	15	5.9	7.6
Cadmium	0.4	mg/kg	< 0.4	< 0.4	0.5	< 0.4
Chromium	5	mg/kg	9.0	20	12	16
Copper	5	mg/kg	13	10	29	48
Lead	5	mg/kg	9.0	14	15	17
Mercury	0.05	mg/kg	< 0.05	0.07	0.07	0.50
Nickel	5	mg/kg	6.2	6.2	7.2	7.4
Zinc	5	mg/kg	41	15	52	23

Client Sample ID			TP07 3.4-3.5	TP08 0.1-0.2	TP08 1.5-1.6	TP08 2.4-2.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S13-Oc24005	S13-Oc24006	S13-Oc24007	S13-Oc24008
Date Sampled			Oct 30, 2013	Oct 30, 2013	Oct 30, 2013	Oct 30, 2013
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	-	-	-
TRH C10-C14	20	mg/kg	< 20	-	-	-
TRH C15-C28	50	mg/kg	< 50	-	-	-
TRH C29-C36	50	mg/kg	< 50	-	-	-
TRH C10-36 (Total)	50	mg/kg	< 50	-	-	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	-	-	-
Toluene	0.1	mg/kg	< 0.1	-	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	-	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-	-	-
o-Xylene	0.1	mg/kg	< 0.1	-	-	-
Xylenes - Total	0.3	mg/kg	< 0.3	-	-	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP07 3.4-3.5 Soil S13-Oc24005 Oct 30, 2013	TP08 0.1-0.2 Soil S13-Oc24006 Oct 30, 2013	TP08 1.5-1.6 Soil S13-Oc24007 Oct 30, 2013	TP08 2.4-2.5 Soil S13-Oc24008 Oct 30, 2013
BTEX						
4-Bromofluorobenzene (surr.)	1	%	120	-	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	-	-	-
TRH C6-C10	20	mg/kg	< 20	-	-	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	-	-	-
TRH >C10-C16	50	mg/kg	< 50	-	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-	-	-
TRH >C16-C34	100	mg/kg	< 100	-	-	-
TRH >C34-C40	100	mg/kg	< 100	-	-	-
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-	-
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Chrysene	0.5	mg/kg	< 0.5	< 0.5	-	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	-
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Total PAH	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(a)pyrene TEQ*	0.5	mg/kg	0.6	0.6	-	-
2-Fluorobiphenyl (surr.)	1	%	92	85	-	-
p-Terphenyl-d14 (surr.)	1	%	94	88	-	-
Ammonia (as N)	0.1	mg/kg	-	-	-	0.1
Chloride	10	mg/kg	-	-	-	320
Nitrate (as N)	0.1	mg/kg	-	-	-	< 0.1
Nitrite (as N)	0.1	mg/kg	-	-	-	< 0.1
Organic Matter %	0.01	% w/w	-	3.1	4.8	-
pH (1:5 Aqueous extract)	0.1	units	-	7.4	5.9	-
Sulphate (as S)	10	mg/kg	-	-	-	81
Phosphorus	10	mg/kg	-	-	-	27
Sulphur	100	mg/kg	-	-	-	310
% Moisture	0.1	%	14	5.3	13	7.6
Alkalinity						
Total Alkalinity (as CaCO3)	50	mg/kg	-	-	-	< 50
Total Nitrogen Set (as N)						
Nitrate & Nitrite (as N)	0.1	mg/kg	-	-	-	< 0.1
Total Kjeldahl Nitrogen (as N)	10	mg/kg	-	-	-	580
Total Nitrogen (as N)	10	mg/kg	-	-	-	580

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP07 3.4-3.5 Soil S13-Oc24005 Oct 30, 2013	TP08 0.1-0.2 Soil S13-Oc24006 Oct 30, 2013	TP08 1.5-1.6 Soil S13-Oc24007 Oct 30, 2013	TP08 2.4-2.5 Soil S13-Oc24008 Oct 30, 2013
Cation Exchange Capacity						
Conductivity (1:5 aqueous extract at 25°C)	10	uS/cm	-	27	210	-
Cation Exchange Capacity	0.05	meq/100g	-	20	31	-
Heavy Metals						
Arsenic	2	mg/kg	8.4	< 2	-	-
Cadmium	0.4	mg/kg	0.7	0.5	-	-
Chromium	5	mg/kg	13	16	-	-
Copper	5	mg/kg	29	93	-	-
Iron	5	mg/kg	-	9000	28000	-
Lead	5	mg/kg	25	29	-	-
Mercury	0.05	mg/kg	1.1	< 0.05	-	-
Nickel	5	mg/kg	18	< 5	-	-
Zinc	5	mg/kg	61	94	-	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP09 0.1-0.2 Soil S13-Oc24009 Oct 30, 2013	QS002 Soil S13-Oc24012 Oct 30, 2013	TP10 0.1-0.2 Soil S13-Oc24013 Oct 30, 2013	TP11 0.1-0.2 Soil S13-Oc24016 Oct 30, 2013
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	< 20	-	-
TRH C10-C14	20	mg/kg	< 20	< 20	-	-
TRH C15-C28	50	mg/kg	< 50	< 50	-	-
TRH C29-C36	50	mg/kg	< 50	< 50	-	-
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	-	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	-	-
Toluene	0.1	mg/kg	< 0.1	< 0.1	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	-	-
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-	-
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	-	-
4-Bromofluorobenzene (surr.)	1	%	93	97	-	-
Aromatic & Aliphatic (TRH) - NP						
TRH >C35 Aromatic	200	mg/kg	< 200	-	-	-
TRH >C35 Aliphatic	1000	mg/kg	< 1000	-	-	-
TRH C10-C15 Aliphatic	500	mg/kg	< 500	-	-	-
TRH C10-C15 Aromatic	50	mg/kg	< 50	-	-	-
TRH C16-C35 Aliphatic	1000	mg/kg	< 1000	-	-	-
TRH C16-C35 Aromatic	50	mg/kg	< 50	-	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	-	-
TRH C6-C10	20	mg/kg	< 20	< 20	-	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	-	-
TRH >C10-C16	50	mg/kg	< 50	< 50	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	-	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP09 0.1-0.2 Soil S13-Oc24009 Oct 30, 2013	QS002 Soil S13-Oc24012 Oct 30, 2013	TP10 0.1-0.2 Soil S13-Oc24013 Oct 30, 2013	TP11 0.1-0.2 Soil S13-Oc24016 Oct 30, 2013
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C16-C34	100	mg/kg	< 100	< 100	-	-
TRH >C34-C40	100	mg/kg	< 100	< 100	-	-
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	1.4	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	1.0	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	1.2	< 0.5	< 0.5	< 0.5
Total PAH	0.5	mg/kg	3.6	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ*	0.5	mg/kg	0.6	0.6	0.6	0.6
2-Fluorobiphenyl (surr.)	1	%	90	88	88	87
p-Terphenyl-d14 (surr.)	1	%	93	89	91	87
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	-	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	-	-	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	-	-	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	-	-	< 0.05
a-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
Aldrin	0.05	mg/kg	< 0.05	-	-	< 0.05
b-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
d-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	-	-	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	-	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	-	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	< 0.05
Methoxychlor	0.2	mg/kg	< 0.2	-	-	< 0.2
Toxaphene	1	mg/kg	< 1	-	-	< 1
Dibutylchlorendate (surr.)	1	%	104	-	-	110
Tetrachloro-m-xylene (surr.)	1	%	104	-	-	115

Client Sample ID			TP09 0.1-0.2	QS002	TP10 0.1-0.2	TP11 0.1-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S13-Oc24009	S13-Oc24012	S13-Oc24013	S13-Oc24016
Date Sampled			Oct 30, 2013	Oct 30, 2013	Oct 30, 2013	Oct 30, 2013
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	< 0.5	-	-	< 0.5
Aroclor-1232	0.5	mg/kg	< 0.5	-	-	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	-	-	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	-	-	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	-	-	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	-	-	< 0.5
Total PCB	0.5	mg/kg	< 0.5	-	-	< 0.5
Dibutylchlorendate (surr.)	1	%	104	-	-	110
Petroleum Hydrocarbons Silica Cleanup (TPH)						
TRH C10-C14 after Silica Cleanup (TPH)	50	mg/kg	< 50	-	-	-
TRH C15-C28 after Silica Cleanup (TPH)	100	mg/kg	< 100	-	-	-
TRH C29-C36 after Silica Cleanup (TPH)	100	mg/kg	< 100	-	-	-
TRH after Silica Cleanup (NEPM) *						
TRH >C10-C16 after Silica Cleanup	50	mg/kg	< 50	-	-	-
TRH >C16-C34 after Silica Cleanup	100	mg/kg	< 100	-	-	-
TRH >C34-C40 after Silica Cleanup	100	mg/kg	< 100	-	-	-
% Moisture	0.1	%	13	17	16	19
Heavy Metals						
Arsenic	2	mg/kg	11	13	11	11
Cadmium	0.4	mg/kg	0.9	1.2	0.8	0.5
Chromium	5	mg/kg	27	17	22	17
Copper	5	mg/kg	92	52	31	44
Lead	5	mg/kg	87	37	39	62
Mercury	0.05	mg/kg	0.45	< 0.05	0.58	1.7
Nickel	5	mg/kg	11	32	14	12
Zinc	5	mg/kg	170	130	85	200
E.Coli	1	MPN/g	see attached	-	-	-
Faecal Coliforms	1	MPN/g	see attached	-	-	-
Salmonella	1	org/g	see attached	-	-	-

Client Sample ID			TP11 1.9-2.0	TB	TS
Sample Matrix			Soil	Soil	Soil
Eurofins | mgt Sample No.			S13-Oc24018	S13-Oc24021	S13-Oc24022
Date Sampled			Oct 30, 2013	Oct 29, 2013	Oct 29, 2013
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions					
TRH C6-C9	20	mg/kg	< 20	-	-
TRH C10-C14	20	mg/kg	< 20	-	-
TRH C15-C28	50	mg/kg	< 50	-	-
TRH C29-C36	50	mg/kg	< 50	-	-
TRH C10-36 (Total)	50	mg/kg	< 50	-	-
BTEX					
Benzene	0.1	mg/kg	< 0.1	< 0.1	99%

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP11 1.9-2.0 Soil S13-Oc24018 Oct 30, 2013	TB Soil S13-Oc24021 Oct 29, 2013	TS Soil S13-Oc24022 Oct 29, 2013
BTEX					
Toluene	0.1	mg/kg	< 0.1	< 0.1	99%
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	98%
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	99%
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	99%
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	99%
4-Bromofluorobenzene (surr.)	1	%	129	98	87
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
Naphthalene[N02]	0.5	mg/kg	< 0.5	-	-
TRH C6-C10	20	mg/kg	< 20	-	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	-	-
TRH >C10-C16	50	mg/kg	< 50	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-	-
TRH >C16-C34	100	mg/kg	< 100	-	-
TRH >C34-C40	100	mg/kg	< 100	-	-
% Moisture	0.1	%	13	-	-
Heavy Metals					
Arsenic	2	mg/kg	< 2	-	-
Cadmium	0.4	mg/kg	< 0.4	-	-
Chromium	5	mg/kg	< 5	-	-
Copper	5	mg/kg	13	-	-
Lead	5	mg/kg	5.7	-	-
Mercury	0.05	mg/kg	< 0.05	-	-
Nickel	5	mg/kg	< 5	-	-
Zinc	5	mg/kg	14	-	-

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).

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Nov 01, 2013	14 Day
- Method: E004 Petroleum Hydrocarbons (TPH)			
BTEX	Sydney	Nov 01, 2013	14 Day
- Method: E029/E016 BTEX			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Nov 01, 2013	14 Day
- Method: LM-LTM-ORG2010			
Polycyclic Aromatic Hydrocarbons	Sydney	Nov 01, 2013	14 Day
- Method: E007 Polyaromatic Hydrocarbons (PAH)			
Organochlorine Pesticides	Sydney	Nov 01, 2013	14 Day
- Method: E013 Organochlorine Pesticides (OC)			
Polychlorinated Biphenyls (PCB)	Sydney	Nov 01, 2013	28 Day
- Method: E013 Polychlorinated Biphenyls (PCB)			
Metals M8	Sydney	Nov 01, 2013	28 Day
- Method: E022 Acid Extractable metals in Soils & E026 Mercury			
Aromatic & Aliphatic (TRH) - NP	Sydney	Nov 05, 2013	14 Day
- Method: E012 Aromatic & Aliphatic (TPH)			
TRH after Silica Cleanup (NEPM) *	Sydney	Nov 01, 2013	14 Day
- Method: LM-LTM-ORG2010			
Ammonia (as N)	Sydney	Nov 01, 2013	28 Day
- Method: E036/E050 Ammonia as N			
Chloride	Sydney	Nov 01, 2013	28 Day
- Method: E033 /E045 /E047 Chloride			
Nitrate (as N)	Sydney	Nov 01, 2013	28 Day
- Method: E037 /E051 Nitrate as N			
Nitrite (as N)	Sydney	Nov 01, 2013	28 Day
- Method: E037 /E051 Nitrite as N			
Organic Matter %	Melbourne	Nov 01, 2013	5 Day
- Method: APHA 2540E Fixed and Volatile Solids Ignited at 550C			
pH (1:5 Aqueous extract)	Sydney	Nov 04, 2013	7 Day
- Method: E018.2 pH			
Sulphate (as S)	Sydney	Nov 01, 2013	28 Day
- Method: E045 Sulphate			
Phosphorus	Sydney	Nov 01, 2013	180 Day
- Method: E020/E030 Metals			
Sulphur	Sydney	Nov 01, 2013	7 Day
- Method: E020/E030 Metals			
% Moisture	Sydney	Nov 01, 2013	28 Day
- Method: E005 Moisture Content			
Alkalinity	Sydney	Nov 05, 2013	0 Day
Total Nitrogen Set (as N)			
Nitrate & Nitrite (as N)	Sydney	Nov 01, 2013	28 Day
- Method: E037 /E051 NOx (as N)			
Total Kjeldahl Nitrogen (as N)	Sydney	Nov 01, 2013	28 Day
- Method: E039/E053 Unfiltered Total Kjeldahl Nitrogen as N			
Cation Exchange Capacity	Melbourne	Nov 04, 2013	28 Day
- Method: 15B1, 15B2, 15B3 Soil Chemical Methods			
- Method: Rayment and Lyons			
Heavy Metals	Sydney	Nov 01, 2013	180 Day
- Method: E022 Acid Extractable metals in Soils			
Petroleum Hydrocarbons Silica Cleanup (TPH)	Sydney	Nov 01, 2013	14 Day

- Method: E004 Petroleum Hydrocarbons Silica Cleanup (TPH)

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Oct 31, 2013 11:20 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	398113	**Due:**	Nov 7, 2013
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Thomas Harding
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail	% Moisture	Ammonia (as N)	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Phosphorus	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup (TPH)	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *	JBS&G Suite 2
laboratory where analysis is conducted																												
elbourne Laboratory - NATA Site # 1254 & 14271										X																X		
ydney Laboratory - NATA Site # 18217	X	X	X			X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X
risbane Laboratory - NATA Site # 20794																												
xternal Laboratory				X	X								X															
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																								
201 0.1-0.2	Oct 30, 2013		Soil	S13-Oc23941	X															X		X							
201 0.6-0.7	Oct 30, 2013		Soil	S13-Oc23942	X						X			X	X					X		X					X		
201 1.4-1.5	Oct 30, 2013		Soil	S13-Oc23943						X																			
201 1.9-2.0	Oct 30, 2013		Soil	S13-Oc23944	X			X	X		X			X	X		X											X		
202 0.1-0.2	Oct 30, 2013		Soil	S13-Oc23945	X																									X
202 0.9-1.0	Oct 30, 2013		Soil	S13-Oc23981						X																			
202 1.4-1.5	Oct 30, 2013		Soil	S13-Oc23982						X																			
202 3.4-3.5	Oct 30, 2013		Soil	S13-Oc23983						X																			
203 0.1-0.2	Oct 30, 2013		Soil	S13-Oc23984	X												X	X	X		X								
203 0.4-0.5	Oct 30, 2013		Soil	S13-Oc23985						X																			

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Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Oct 31, 2013 11:20 AM
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		Fax:		**Contact Name:**	Thomas Harding
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	Ammonia (as N)	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Phosphorus	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup (TPH)	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *	JBS&G Suite 2
boratory where analysis is conducted																																
elbourne Laboratory - NATA Site # 1254 & 14271														X																	X	
dney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X
isbane Laboratory - NATA Site # 20794																																
ternal Laboratory								X	X								X															
03 1.9-2.0	Oct 30, 2013		Soil	S13-Oc23986						X																						
03 4.3-4.4	Oct 30, 2013		Soil	S13-Oc23987						X																						
04 0.1-0.2	Oct 30, 2013		Soil	S13-Oc23988	X																											X
04 0.6-0.7	Oct 30, 2013		Soil	S13-Oc23989						X																						
04 1.2-1.3	Oct 30, 2013		Soil	S13-Oc23990	X	X	X					X	X			X		X	X	X	X		X	X			X		X			
04 3.6-3.7	Oct 30, 2013		Soil	S13-Oc23991	X			X	X								X				X			X					X			
05 0.1-0.2	Oct 30, 2013		Soil	S13-Oc23992	X																X		X									
05 0.6-0.7	Oct 30, 2013		Soil	S13-Oc23993						X																						
05 1.1-1.2	Oct 30, 2013		Soil	S13-Oc23995						X																						
05 3.9-4.0	Oct 30, 2013		Soil	S13-Oc23996						X																						
3001	Oct 30, 2013		Soil	S13-Oc23997	X																											X

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Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	Ammonia (as N)	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Phosphorus	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup (TPH)	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *	JBS&G Suite 2
laboratory where analysis is conducted																																
elbourne Laboratory - NATA Site # 1254 & 14271														X																X		
ydney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X		X	X
risbane Laboratory - NATA Site # 20794																																
xternal Laboratory								X	X								X															
206 0.1-0.2	Oct 30, 2013		Soil	S13-Oc23998	X																X	X	X		X							
206 0.4-0.5	Oct 30, 2013		Soil	S13-Oc23999						X																						
206 1.4-1.5	Oct 30, 2013		Soil	S13-Oc24000						X																						
206 2.4-2.5	Oct 30, 2013		Soil	S13-Oc24001						X																						
207 0.1-0.2	Oct 30, 2013		Soil	S13-Oc24002	X																X		X									
207 0.4-0.5	Oct 30, 2013		Soil	S13-Oc24003						X																						
207 1.4-1.5	Oct 30, 2013		Soil	S13-Oc24004						X																						
207 3.4-3.5	Oct 30, 2013		Soil	S13-Oc24005	X																X		X	X					X			
208 0.1-0.2	Oct 30, 2013		Soil	S13-Oc24006	X						X			X	X						X		X								X	
208 1.5-1.6	Oct 30, 2013		Soil	S13-Oc24007	X						X			X	X																X	
208 2.4-2.5	Oct 30, 2013		Soil	S13-Oc24008	X	X	X					X	X			X		X	X	X							X					

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		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Thomas Harding
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	Ammonia (as N)	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Phosphorus	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup (TPH)	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *	JBS&G Suite 2
aboratory where analysis is conducted																																
elbourne Laboratory - NATA Site # 1254 & 14271														X																X		
ydney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X		X	X
risbane Laboratory - NATA Site # 20794																																
xternal Laboratory								X	X								X															
209 0.1-0.2	Oct 30, 2013		Soil	S13-Oc24009	X			X	X								X									X		X			X	X
209 0.4-0.5	Oct 30, 2013		Soil	S13-Oc24010						X																						
209 1.2-1.3	Oct 30, 2013		Soil	S13-Oc24011						X																						
3002	Oct 30, 2013		Soil	S13-Oc24012	X																X		X	X						X			
210 0.1-0.2	Oct 30, 2013		Soil	S13-Oc24013	X																X		X										
210 0.4-0.5	Oct 30, 2013		Soil	S13-Oc24014						X																							
210 2.3-2.4	Oct 30, 2013		Soil	S13-Oc24015						X																							
211 0.1-0.2	Oct 30, 2013		Soil	S13-Oc24016	X																X	X	X		X								
211 0.6-0.7	Oct 30, 2013		Soil	S13-Oc24017						X																							
211 1.9-2.0	Oct 30, 2013		Soil	S13-Oc24018	X																		X	X						X			
209 1.5-1.6	Oct 30, 2013		Soil	S13-Oc24020						X																							

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		Fax:		**Contact Name:**	Thomas Harding
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Sample Detail					% Moisture	Ammonia (as N)	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Phosphorus	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup (TPH)	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *	JBS&G Suite 2
boratory where analysis is conducted																																	
elbourne Laboratory - NATA Site # 1254 & 14271														X																	X		
ydney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X
isbane Laboratory - NATA Site # 20794																																	
xternal Laboratory								X	X								X																
3	Oct 29, 2013		Soil	S13-Oc24021																				X									
5	Oct 29, 2013		Soil	S13-Oc24022																				X									
202 0.4-0.5	Oct 30, 2013		Soil	S13-Oc24036						X																							
203 0.9-1.0	Oct 30, 2013		Soil	S13-Oc24169						X																							
208 0.4-0.5	Oct 30, 2013		Soil	S13-Oc24170						X																							

Eurofins | mgt Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

UNITS

mg/kg: milligrams per Kilogram

ug/l: micrograms per litre

ppb: Parts per billion

org/100ml: Organisms per 100 millilitres

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

mg/l: milligrams per litre

ppm: Parts per million

%: Percentage

NTU: Units

TERMS

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

QC - ACCEPTANCE CRITERIA

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

Results <10 times the LOR : No Limit

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

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

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

QC DATA GENERAL COMMENTS

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

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH C6-C10 less BTEX (F1)	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
d-BHC	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.2			0.2	Pass	
Toxaphene	mg/kg	< 1			1	Pass	
Method Blank							
Polychlorinated Biphenyls (PCB)							
Aroclor-1016	mg/kg	< 0.5			0.5	Pass	
Aroclor-1232	mg/kg	< 0.5			0.5	Pass	
Aroclor-1242	mg/kg	< 0.5			0.5	Pass	
Aroclor-1248	mg/kg	< 0.5			0.5	Pass	
Aroclor-1254	mg/kg	< 0.5			0.5	Pass	
Aroclor-1260	mg/kg	< 0.5			0.5	Pass	
Total PCB	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Petroleum Hydrocarbons Silica Cleanup (TPH)							
TRH C10-C14 after Silica Cleanup (TPH)	mg/kg	< 50			50	Pass	
TRH C15-C28 after Silica Cleanup (TPH)	mg/kg	< 100			100	Pass	
TRH C29-C36 after Silica Cleanup (TPH)	mg/kg	< 100			100	Pass	
Method Blank							
TRH after Silica Cleanup (NEPM) *							
TRH >C10-C16 after Silica Cleanup	mg/kg	< 50			50	Pass	
TRH >C16-C34 after Silica Cleanup	mg/kg	< 100			100	Pass	
TRH >C34-C40 after Silica Cleanup	mg/kg	< 100			100	Pass	
Method Blank							
Ammonia (as N)	mg/kg	< 0.1			0.1	Pass	
Chloride	mg/kg	< 10			10	Pass	
Nitrate (as N)	mg/kg	< 0.1			0.1	Pass	
Nitrite (as N)	mg/kg	< 0.1			0.1	Pass	
Sulphate (as S)	mg/kg	< 10			10	Pass	
Phosphorus	mg/kg	< 10			10	Pass	
Sulphur	mg/kg	< 100			100	Pass	
Method Blank							
Total Nitrogen Set (as N)							
Nitrate & Nitrite (as N)	mg/kg	< 0.1			0.1	Pass	
Total Kjeldahl Nitrogen (as N)	mg/kg	< 10			10	Pass	
Method Blank							
Cation Exchange Capacity							
Cation Exchange Capacity	meq/100g	< 0.05			0.05	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Iron	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.05			0.05	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	102			70-130	Pass	
TRH C10-C14	%	85			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	108			70-130	Pass	
Toluene	%	91			70-130	Pass	
Ethylbenzene	%	87			70-130	Pass	
m&p-Xylenes	%	88			70-130	Pass	
o-Xylene	%	89			70-130	Pass	
Xylenes - Total	%	88			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	81			70-130	Pass	
TRH C6-C10	%	89			70-130	Pass	
TRH >C10-C16	%	95			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	116			70-130	Pass	
Acenaphthylene	%	113			70-130	Pass	
Anthracene	%	118			70-130	Pass	
Benz(a)anthracene	%	106			70-130	Pass	
Benzo(a)pyrene	%	110			70-130	Pass	
Benzo(b&j)fluoranthene	%	116			70-130	Pass	
Benzo(g.h.i)perylene	%	114			70-130	Pass	
Benzo(k)fluoranthene	%	118			70-130	Pass	
Chrysene	%	126			70-130	Pass	
Dibenz(a.h)anthracene	%	116			70-130	Pass	
Fluoranthene	%	115			70-130	Pass	
Fluorene	%	115			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	116			70-130	Pass	
Naphthalene	%	117			70-130	Pass	
Phenanthrene	%	111			70-130	Pass	
Pyrene	%	114			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	101			70-130	Pass	
4.4'-DDD	%	108			70-130	Pass	
4.4'-DDE	%	102			70-130	Pass	
4.4'-DDT	%	103			70-130	Pass	
a-BHC	%	105			70-130	Pass	
Aldrin	%	107			70-130	Pass	
b-BHC	%	86			70-130	Pass	
d-BHC	%	93			70-130	Pass	
Dieldrin	%	103			70-130	Pass	
Endosulfan I	%	106			70-130	Pass	
Endosulfan II	%	94			70-130	Pass	
Endosulfan sulphate	%	87			70-130	Pass	
Endrin	%	109			70-130	Pass	
Endrin aldehyde	%	85			70-130	Pass	
Endrin ketone	%	86			70-130	Pass	
g-BHC (Lindane)	%	99			70-130	Pass	
Heptachlor	%	99			70-130	Pass	
Heptachlor epoxide	%	101			70-130	Pass	
Hexachlorobenzene	%	99			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Methoxychlor	%	88			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls (PCB)							
Aroclor-1260	%	99			70-130	Pass	
LCS - % Recovery							
Petroleum Hydrocarbons Silica Cleanup (TPH)							
TRH C10-C14 after Silica Cleanup (TPH)	%	86			70-130	Pass	
LCS - % Recovery							
TRH after Silica Cleanup (NEPM) *							
TRH >C10-C16 after Silica Cleanup	%	99			70-130	Pass	
LCS - % Recovery							
Ammonia (as N)	%	96			70-130	Pass	
Chloride	%	110			70-130	Pass	
Nitrate (as N)	%	119			70-130	Pass	
Nitrite (as N)	%	102			70-130	Pass	
Sulphate (as S)	%	109			70-130	Pass	
Phosphorus	%	83			70-130	Pass	
Sulphur	%	86			70-130	Pass	
LCS - % Recovery							
Total Nitrogen Set (as N)							
Nitrate & Nitrite (as N)	%	111			70-130	Pass	
Total Kjeldahl Nitrogen (as N)	%	93			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	87			70-130	Pass	
Cadmium	%	97			70-130	Pass	
Chromium	%	95			70-130	Pass	
Copper	%	108			70-130	Pass	
Iron	%	93			70-130	Pass	
Lead	%	95			70-130	Pass	
Mercury	%	83			70-130	Pass	
Nickel	%	98			70-130	Pass	
Zinc	%	104			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S13-Oc23941	CP	%	123			70-130	Pass	
Acenaphthylene	S13-Oc23941	CP	%	119			70-130	Pass	
Anthracene	S13-Oc23941	CP	%	108			70-130	Pass	
Benz(a)anthracene	S13-Oc23941	CP	%	120			70-130	Pass	
Benzo(a)pyrene	S13-Oc23941	CP	%	116			70-130	Pass	
Benzo(b&j)fluoranthene	S13-Oc23941	CP	%	119			70-130	Pass	
Benzo(g.h.i)perylene	S13-Oc23941	CP	%	104			70-130	Pass	
Benzo(k)fluoranthene	S13-Oc23941	CP	%	112			70-130	Pass	
Chrysene	S13-Oc23941	CP	%	114			70-130	Pass	
Dibenz(a.h)anthracene	S13-Oc23941	CP	%	113			70-130	Pass	
Fluoranthene	S13-Oc23941	CP	%	108			70-130	Pass	
Fluorene	S13-Oc23941	CP	%	120			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S13-Oc23941	CP	%	113			70-130	Pass	
Naphthalene	S13-Oc23941	CP	%	114			70-130	Pass	
Phenanthrene	S13-Oc23941	CP	%	123			70-130	Pass	
Pyrene	S13-Oc23941	CP	%	111			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Arsenic	S13-Oc23941	CP	%	99			70-130	Pass	
Cadmium	S13-Oc23941	CP	%	96			70-130	Pass	
Chromium	S13-Oc23941	CP	%	91			70-130	Pass	
Copper	S13-Oc23941	CP	%	115			70-130	Pass	
Lead	S13-Oc23941	CP	%	88			70-130	Pass	
Mercury	S13-Oc23941	CP	%	83			70-130	Pass	
Nickel	S13-Oc23941	CP	%	98			70-130	Pass	
Zinc	S13-Oc23941	CP	%	94			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Iron	S13-Oc21050	NCP	%	92			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S13-Oc23945	CP	%	98			70-130	Pass	
TRH C10-C14	S13-Oc23272	NCP	%	84			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S13-Oc23945	CP	%	104			70-130	Pass	
Toluene	S13-Oc23945	CP	%	88			70-130	Pass	
Ethylbenzene	S13-Oc23945	CP	%	83			70-130	Pass	
m&p-Xylenes	S13-Oc23945	CP	%	84			70-130	Pass	
o-Xylene	S13-Oc23945	CP	%	85			70-130	Pass	
Xylenes - Total	S13-Oc23945	CP	%	84			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S13-Oc23945	CP	%	82			70-130	Pass	
TRH C6-C10	S13-Oc23945	CP	%	96			70-130	Pass	
TRH >C10-C16	S13-Oc23272	NCP	%	95			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S13-Oc22300	NCP	%	122			70-130	Pass	
4.4'-DDD	S13-Oc22325	NCP	%	105			70-130	Pass	
4.4'-DDE	S13-Oc22325	NCP	%	92			70-130	Pass	
4.4'-DDT	S13-Oc22325	NCP	%	92			70-130	Pass	
a-BHC	S13-Oc22325	NCP	%	98			70-130	Pass	
Aldrin	S13-Oc22325	NCP	%	95			70-130	Pass	
b-BHC	S13-Oc22325	NCP	%	90			70-130	Pass	
d-BHC	S13-Oc22325	NCP	%	86			70-130	Pass	
Dieldrin	S13-Oc22325	NCP	%	96			70-130	Pass	
Endosulfan I	S13-Oc22325	NCP	%	104			70-130	Pass	
Endosulfan II	S13-Oc22325	NCP	%	89			70-130	Pass	
Endosulfan sulphate	S13-Oc22325	NCP	%	73			70-130	Pass	
Endrin aldehyde	S13-Oc22325	NCP	%	84			70-130	Pass	
Endrin ketone	S13-Oc22325	NCP	%	113			70-130	Pass	
g-BHC (Lindane)	S13-Oc22325	NCP	%	91			70-130	Pass	
Heptachlor	S13-Oc22325	NCP	%	96			70-130	Pass	
Heptachlor epoxide	S13-Oc22325	NCP	%	95			70-130	Pass	
Hexachlorobenzene	S13-Oc22325	NCP	%	88			70-130	Pass	
Methoxychlor	S13-Oc22325	NCP	%	81			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls (PCB)				Result 1					
Aroclor-1260	S13-Oc22353	NCP	%	91			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S13-Oc22632	NCP	%	100			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
				Result 1					
Sulphate (as S)	S13-Oc22974	NCP	%	106			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S13-Oc24002	CP	%	125			70-130	Pass	
Acenaphthylene	S13-Oc24002	CP	%	125			70-130	Pass	
Anthracene	S13-Oc24002	CP	%	122			70-130	Pass	
Benz(a)anthracene	S13-Oc24002	CP	%	115			70-130	Pass	
Benzo(a)pyrene	S13-Oc24002	CP	%	122			70-130	Pass	
Benzo(b&j)fluoranthene	S13-Oc24002	CP	%	124			70-130	Pass	
Benzo(g.h.i)perylene	S13-Oc24002	CP	%	121			70-130	Pass	
Benzo(k)fluoranthene	S13-Oc24002	CP	%	124			70-130	Pass	
Chrysene	S13-Oc24002	CP	%	120			70-130	Pass	
Dibenz(a.h)anthracene	S13-Oc24002	CP	%	125			70-130	Pass	
Fluoranthene	S13-Oc24002	CP	%	116			70-130	Pass	
Fluorene	S13-Oc24002	CP	%	124			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S13-Oc24002	CP	%	124			70-130	Pass	
Naphthalene	S13-Oc24002	CP	%	124			70-130	Pass	
Phenanthrene	S13-Oc24002	CP	%	122			70-130	Pass	
Pyrene	S13-Oc24002	CP	%	125			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S13-Oc24002	CP	%	97			70-130	Pass	
Cadmium	S13-Oc24002	CP	%	109			70-130	Pass	
Chromium	S13-Oc24002	CP	%	96			70-130	Pass	
Copper	S13-Oc24002	CP	%	85			70-130	Pass	
Lead	S13-Oc24002	CP	%	102			70-130	Pass	
Mercury	S13-Oc24002	CP	%	84			70-130	Pass	
Nickel	S13-Oc24002	CP	%	115			70-130	Pass	
Zinc	S13-Oc24002	CP	%	105			70-130	Pass	
Spike - % Recovery									
Petroleum Hydrocarbons Silica Cleanup (TPH)				Result 1					
TRH C10-C14 after Silica Cleanup (TPH)	S13-No00214	NCP	%	79			70-130	Pass	
Spike - % Recovery									
TRH after Silica Cleanup (NEPM) *				Result 1					
TRH >C10-C16 after Silica Cleanup	S13-No00214	NCP	%	89			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S13-Oc23941	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S13-Oc23941	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S13-Oc23941	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S13-Oc23941	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S13-Oc23941	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S13-Oc23941	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S13-Oc23941	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S13-Oc23941	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S13-Oc23941	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S13-Oc23941	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S13-Oc23941	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S13-Oc23941	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S13-Oc23941	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Naphthalene	S13-Oc23941	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S13-Oc23941	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S13-Oc23941	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S13-Oc23941	CP	mg/kg	5.8	4.7	22	30%	Pass	
Cadmium	S13-Oc23941	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S13-Oc23941	CP	mg/kg	12	11	4.0	30%	Pass	
Copper	S13-Oc23941	CP	mg/kg	15	13	13	30%	Pass	
Lead	S13-Oc23941	CP	mg/kg	12	15	20	30%	Pass	
Mercury	S13-Oc23941	CP	mg/kg	0.05	0.06	12	30%	Pass	
Nickel	S13-Oc23941	CP	mg/kg	6.6	6.5	1.0	30%	Pass	
Zinc	S13-Oc23941	CP	mg/kg	24	26	5.0	30%	Pass	
Duplicate									
Cation Exchange Capacity				Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract at 25°C)	M13-No00666	NCP	uS/cm	100	81	25	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S13-Oc23945	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S13-Oc23272	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S13-Oc23272	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S13-Oc23272	NCP	mg/kg	67	73	8.0	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S13-Oc23945	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S13-Oc23945	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S13-Oc23945	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S13-Oc23945	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S13-Oc23945	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	S13-Oc23945	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S13-Oc23945	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S13-Oc23945	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10 less BTEX (F1)	S13-Oc23945	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S13-Oc23272	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S13-Oc23272	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S13-Oc23272	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S13-Oc22325	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S13-Oc22325	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S13-Oc22325	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S13-Oc22325	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	S13-Oc22325	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S13-Oc22325	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	S13-Oc22325	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	S13-Oc22325	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S13-Oc22325	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S13-Oc22325	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S13-Oc22325	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S13-Oc22325	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S13-Oc22325	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S13-Oc22325	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	

Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Endrin ketone	S13-Oc22325	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	S13-Oc22325	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S13-Oc22325	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S13-Oc22325	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S13-Oc22325	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S13-Oc22325	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Toxaphene	S13-Oc22325	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls (PCB)				Result 1	Result 2	RPD			
Aroclor-1016	S13-Oc22353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1232	S13-Oc22353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1242	S13-Oc22353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1248	S13-Oc22353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1254	S13-Oc22353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1260	S13-Oc22353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S13-Oc22632	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Nitrate (as N)	S13-No00240	NCP	mg/kg	0.30	0.30	<1	30%	Pass	
Nitrite (as N)	S13-No00240	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Sulphate (as S)	S13-Oc22993	NCP	mg/kg	460	460	<1	30%	Pass	
Duplicate									
Total Nitrogen Set (as N)				Result 1	Result 2	RPD			
Nitrate & Nitrite (as N)	S13-No00240	NCP	mg/kg	0.30	0.30	<1	30%	Pass	
Total Kjeldahl Nitrogen (as N)	S13-No00240	NCP	mg/kg	310	310	2.0	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S13-Oc24002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S13-Oc24002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S13-Oc24002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S13-Oc24002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S13-Oc24002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S13-Oc24002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S13-Oc24002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S13-Oc24002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S13-Oc24002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S13-Oc24002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S13-Oc24002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S13-Oc24002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S13-Oc24002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S13-Oc24002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S13-Oc24002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S13-Oc24002	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S13-Oc24002	CP	mg/kg	7.6	6.9	9.0	30%	Pass	
Cadmium	S13-Oc24002	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S13-Oc24002	CP	mg/kg	16	14	18	30%	Pass	
Copper	S13-Oc24002	CP	mg/kg	48	41	14	30%	Pass	
Lead	S13-Oc24002	CP	mg/kg	17	18	5.0	30%	Pass	
Mercury	S13-Oc24002	CP	mg/kg	0.50	0.46	10	30%	Pass	
Nickel	S13-Oc24002	CP	mg/kg	7.4	6.6	12	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Zinc	S13-Oc24002	CP	mg/kg	23	24	3.0	30%	Pass	
Duplicate									
Petroleum Hydrocarbons Silica Cleanup (TPH)				Result 1	Result 2	RPD			
TRH C10-C14 after Silica Cleanup (TPH)	S13-No00214	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C15-C28 after Silica Cleanup (TPH)	S13-No00214	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH C29-C36 after Silica Cleanup (TPH)	S13-No00214	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
TRH after Silica Cleanup (NEPM) *				Result 1	Result 2	RPD			
TRH >C10-C16 after Silica Cleanup	S13-No00214	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34 after Silica Cleanup	S13-No00214	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40 after Silica Cleanup	S13-No00214	NCP	mg/kg	< 100	< 100	<1	30%	Pass	

Comments

E.Coli/Salmonella/Faecal Coliforms analysed by ALS, NATA #1247, Job reference:FS1333326

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised By

Jean Heng	Client Services
Bob Symons	Senior Analyst-Inorganic (NSW)
Emily Rosenberg	Senior Analyst-Metal (VIC)
Huong Le	Senior Analyst-Inorganic (VIC)
James Norford	Senior Analyst-Metal (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)
Ryan Hamilton	Senior Analyst-Volatile (NSW)

Dr. Bob Symons

Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

#398243

1 of 4

JBS&G

CHAIN OF CUSTODY

tharding@jbsg.com.au, cluu@jbsg.com.au, mdelandro@jbsg.com.au

PROJECT NO.:	43008	LABORATORY BATCH NO.	
PROJECT NAME:	Urban Growth.	SAMPLERS	EC & MD.
SEND REPORT TO:	SEND INVOICE TO: ap@jbsg.com.au	PHONE: 02 82450300	EMAIL:
DATE NEEDED BY:	Standard	QC LEVEL:	

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	TPH/BTEX	TPH aliph/arom HCL	TPH silica gel	Biological	nutrients	PAHs	asbestos	PCBs/OCPs	ASLP	EC	Fe	pH	CEC	organic matter	Ammonia	NOTES
TP16 0.1-0.2	S	31/10/13				X																
TP16 0.9-1.0						X																
TP16 1.4-1.5.																						
TP16 2.7-2.5										X												
TP15 0.1-0.2						X																
TP15 0.4-0.5						X																
TP15 1.4-1.5																						
TP14 0.1-0.2						X	X		X			X	X	X								
TP14 0.4-0.5																						
TP14 0.9-1.0																						
TP14 1.4-1.5						X																
TP14 2.5-2.7																						
TP13 0.1-0.2																						
TP13 0.5-0.6																						
TP13 1.0-1.1																						
TP13 2.1-2.2																						
TP12 0.1-0.2						X	X		X			X	X	X								
TP12 0.7-0.8	S	31/10/13				X																

RELINQUISHED BY:		METHOD OF SHIPMENT:	RECEIVED BY:		FOR RECEIVING LAB USE ONLY:
NAME:	DATE:	CONSIGNMENT NOTE NO.	NAME:	DATE:	COOLER SEAL – Yes...... No .... Intact .... Broken ....
OF: JBS&G		TRANSPORT CO.	OF:		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

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tharding@jbsg.com.au, cluu@jbsg.com.au, mdelandro@jbsg.com.au

JBS&G

CHAIN OF CUSTODY

PROJECT NO.: 43008
PROJECT NAME: Orban Growth
SEND REPORT TO:
SEND INVOICE TO: gng@jbsg.com.au
DATE NEEDED BY: Standard
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

LABORATORY BATCH NO.
SAMPLERS
PHONE: 02 82450300
EMAIL:
QC LEVEL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	TPH/BTEX	TPH aliph/arom	TPH Silica gel	Biological	Nutrients	PAHs	asbestos	PCB/OCPs	ASLP	EC	FE	pH	CEC	Organic Matter	Ammonia	NOTES
TP12 1.1-1.2	S	31/10/13																				
QS003																						
QS003A																						
TP26 0.1-0.2																						
TP26 0.5-0.6						X																
TP26 0.9-1.0																						
TP26 2.6-2.7										X												
TP25 0.1-0.2																						
TP25 0.4-0.5						X	X					X	X	X								
TP25 1.1-1.2																						
TP25 3.3-3.4																						
TP22 0.1-0.2						X	X					X	X	X								
TP22 0.9-1.0						X																
TP22 1.7-1.8																						
TP22 2.7-2.8																						
TP18 1.6-1.1						X	X	X	X	X	X											
TP18 1.8-1.9						X	X	X	X	X	X											
TP22 0.4-0.5	↓	↓																				

RELINQUISHED BY:
NAME: DATE:
OF: JBS&G
NAME: DATE:
OF:

METHOD OF SHIPMENT:
CONSIGNMENT NOTE NO.
TRANSPORT CO.
CONSIGNMENT NOTE NO.
TRANSPORT CO

RECEIVED BY:
NAME: DATE:
OF:
NAME: DATE:
OF:

FOR RECEIVING LAB USE ONLY:
COOLER SEAL – Yes...... No .... Intact .... Broken ....
COOLER TEMP ...... deg C
COOLER SEAL – Yes...... No .... Intact .... Broken ....
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

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#398243

JBS&G

CHAIN OF CUSTODY

PROJECT NO.: 43008
PROJECT NAME: Urban Growth
SEND REPORT TO:
SEND INVOICE TO: gng@jbsg.com.au
DATE NEEDED BY: Standard
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

LABORATORY BATCH NO.:
SAMPLERS: EL + MD
PHONE: 02 82450300
EMAIL:
QC LEVEL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	TPH/BTEX	TRH alum/arom	TRH Silica gel	Biological	nutrients	PAHs	asbestos	PCBs/OCPs	ASLP	EC	Fe	pH	CEC	organic matter	ammonia	NOTES
TP20 0.1-0.2	S	31/10/13																				
TP20 0.4-0.5	↓	↓				X	X		X			X		X								
TP20 2.4-2.5																						
TP20 3.4-3.5																						
TP21 0.1-0.2						X	X					X		X								
TP21 0.4-0.5						X																
TP21 1.4-1.5																						
TP21 2.9-3.0																						
TP21 3.4-3.5																						
TP19 0.1-0.2						X						X										
TP19 0.4-0.5						X	X	X	X			X	X									
TP19 1.0-1.5																						
TP19 3.9-4.0																						
TP17 0.9-1.0																						
TP17 1.8-1.9																						
TP31 0.1-0.2						X						X										
TP31 0.9-1.0																						
TP31 1.4-1.5	↓	↓																				

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

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4 of 4

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ellul@jbsg.com.au
mdelandro@jbsg.com.au

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 43008	LABORATORY BATCH NO.
PROJECT NAME: Urban Growth	SAMPLERS: EL * MD.
SEND REPORT TO: / SEND INVOICE TO: gng@jbsg.com.au	PHONE: 02 82450300 EMAIL:
DATE NEEDED BY: Standard	QC LEVEL:

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	TPH/BTEX	TPH alph/arom	TPH silica gel	Biological	nutrients	PAHs	asbestos	PCBs/OCPs	ASLP	EC	Fe	pH	CEC	organic matter	ammonia	NOTES
TP30_0.1_0.2	S	31/10/13				X																
TP30_0.9-1.0	↓																					
TP30_1.5-1.6	↓	↓																				
Rinsate	W	31/10/13				X	X					X		X								
Trip S	W	29/10/13					X															
Trip B	W	29/10/13					X															
TP19 1.9-2.0	S	29/10/13								X						X	X	X	X	X		
TP17 0.9-1.0						X	X	X	X	X	X											
TP17-1.8-1.9						X	X	X	X	X	X											

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL - Yes....... No .... Intact .... Broken ....
OF: JBS&G	TRANSPORT CO.	OF:	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

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Food & Pharmaceutical

EUROFINS ENVIRONMENT TESTING AUSTRALIA P/L
UNIT F3 PARK VIEW BUILDING
16 MARS ROAD
LANE COVE NSW, 2066

Attention: **Jean Heng**

CERTIFICATE OF ANALYSIS

Our Ref No: FS1333590 **Your Ref:** 13-817-398243

Report Date: 11 Nov 2013. Project:

Overall Description: Soil Samples
Samples Received: 04 Nov 2013 at 11:50 hrs.
Testing Commenced: 05 Nov 2013 at 19:33 hrs.

This report cannot be reproduced except in full, without written approval from the laboratory.
Samples tested as received into the laboratory.

Sample Details: Test Description		Results	Units	Site
001 Client ID: TP16 2.7-2.8 Eurofin/MGT ID: No00210 (NATA Accredited)				
WM0001	Salmonella spp	N/D	in 25g	NSW
WM0010	E. coli	<2.0	MPN/g	NSW
WM0010	Faecal Coliforms	<2.0	MPN/g	NSW
002 Client ID: TP26 0.9-1.0 Eurofin/MGT ID: No00230 (NATA Accredited)				
WM0001	Salmonella spp	N/D	in 25g	NSW
WM0010	E. coli	<2.0	MPN/g	NSW
WM0010	Faecal Coliforms	<2.0	MPN/g	NSW
003 Client ID: TP18 1.0-1.1 Eurofin/MGT ID: No00240 (NATA Accredited)				
WM0001	Salmonella spp	N/D	in 25g	NSW
WM0010	E. coli	<2.0	MPN/g	NSW
WM0010	Faecal Coliforms	<2.0	MPN/g	NSW
004 Client ID: TP18 1.8-1.9 Eurofin/MGT ID: No00241 (NATA Accredited)				
WM0001	Salmonella spp	N/D	in 25g	NSW
WM0010	E. coli	<2.0	MPN/g	NSW
WM0010	Faecal Coliforms	<2.0	MPN/g	NSW
005 Client ID: TP19 1.9-2.0 Eurofin/MGT ID: No00266 (NATA Accredited)				
WM0001	Salmonella spp	N/D	in 25g	NSW
WM0010	E. coli	<2.0	MPN/g	NSW
WM0010	Faecal Coliforms	<2.0	MPN/g	NSW
006 Client ID: TP17 0.9-1.0 Eurofin/MGT ID: No00267 (NATA Accredited)				
WM0001	Salmonella spp	N/D	in 25g	NSW
WM0010	E. coli	<2.0	MPN/g	NSW
WM0010	Faecal Coliforms	<2.0	MPN/g	NSW

10/2-8 South Street, Rydalmere NSW 2116 Phone: +61 2 8832 7500 Fax: +61 2 9898 3472
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007 Client ID: TP17 1.8-1.9 Eurofin/MGT ID: No00268 (NATA Accredited)				
WM0001	Salmonella spp	N/D	in 25g	NSW
WM0010	E. coli	<2.0	MPN/g	NSW
WM0010	Faecal Coliforms	<2.0	MPN/g	NSW

Signatories

This document has been electronically signed by the authorized signatories indicated below.
Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Tina Papadopoulos	Laboratory Manager - Microbiology	Water Microbiology

WORLD RECOGNISED ACCREDITATION

General Comments

10/2-8 South Street, Rydalmere NSW 2116 Phone: +61 2 8832 7500 Fax: +61 2 9898 3472
Food & Pharmaceutical. An ALS Limited Company

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh Vic 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F6, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Sample Receipt Advice

Company name:	**JBS & G (NSW & WA) Pty Ltd**
Contact name:	Michelle Delandro
Client job number:	URBAN GROWTH 43008
COC number:	Not provided
Turn around time:	5 Day
Date/Time received:	Nov 1, 2013 9:52 AM
Eurofins | mgt reference:	**398243**

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 : 14 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.
- ☑ Organic samples had Teflon liners.
- ☑ Sample containers for volatile analysis received with zero headspace.
- ☑ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

Asbestos conducte at Envirolab| QS300A forwarded to Envirola| Extra Jars: TP19 0.9-1.0, TP19 1.4-1.5, TP20 1.4-1.5, TP20 2.6-2.7, TP21 0.9-1.0 have been placed on hold| Extra Bags :TP 19 0.1-0.2, TP16 (no depth on bag) have been placed on hold: Extra Micro jars TP22 2.7-2.8, TP25 3.3-3.4, TP26 2.6-2.7 Labelling discrepancies- COC: TP14 2.5-2.7 Jar: TP14 2.6-2.7 COC: TP12 1.1-1.2 Jar: TP12 1.2-1.3 COC: TP25 0.4-0.5 Jar: TP25 0.5-0.6 COC: TP22 0.9-1.0 Jar: TP22 0.5-0.6. All have been labelled as per COC| TB/TS are soils. Not waters as indicated on COC| Missing: TP19 1.0-1.5. Analysis cancelled| Samples TP17 0.9-1.0 and TP17 1.8-1.9 entered twice on COC.

Contact notes

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

Jean Heng on Phone : (+61) (2) 9900 8400 or by e.mail: JeanHeng@eurofins.com.au

Results will be delivered electronically via e.mail to Michelle Delandro - MDelandro@jbsg.com.au.

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 9:52 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	398243	**Due:**	Nov 8, 2013
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Michelle Delandro
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail	% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Total Phosphorous	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
boratory where analysis is conducted																													
lbourne Laboratory - NATA Site # 1254 & 14271										X																		X	
dney Laboratory - NATA Site # 18217	X	X	X			X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
isbane Laboratory - NATA Site # 20794																													
ternal Laboratory				X	X							X																	
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																										
16 0.1-0.2	Oct 31, 2013		Soil	S13-No00207	X																X									
16 0.9-1.0	Oct 31, 2013		Soil	S13-No00208	X																X									
16 1.4-1.5	Oct 31, 2013		Soil	S13-No00209						X																				
16 2.7-2.8	Oct 31, 2013		Soil	S13-No00210				X	X						X															
15 0.1-0.2	Oct 31, 2013		Soil	S13-No00211	X																X									
15 0.4-0.5	Oct 31, 2013		Soil	S13-No00212	X																X									
15 1.4-1.5	Oct 31, 2013		Soil	S13-No00213						X																				
14 0.1-0.2	Oct 31, 2013		Soil	S13-No00214	X														X	X	X		X	X	X			X		X
14 0.4-0.5	Oct 31, 2013		Soil	S13-No00215						X																				
14 0.9-1.0	Oct 31, 2013		Soil	S13-No00216						X																				

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 9:52 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:** **Phone:** **Fax:**	398243 02 8245 0300	**Due:** **Priority:** **Contact Name:**	Nov 8, 2013 5 Day Michelle Delandro
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Total Phosphorous	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
boratory where analysis is conducted																																
elbourne Laboratory - NATA Site # 1254 & 14271														X																		X	
rdney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
risbane Laboratory - NATA Site # 20794																																	
xternal Laboratory								X	X							X																	
214 1.4-1.5	Oct 31, 2013		Soil	S13-No00217	X																			X									
214 2.5-2.7	Oct 31, 2013		Soil	S13-No00218						X																							
213 0.1-0.2	Oct 31, 2013		Soil	S13-No00219						X																							
213 0.5-0.6	Oct 31, 2013		Soil	S13-No00220						X																							
213 1.0-1.1	Oct 31, 2013		Soil	S13-No00221						X																							
213 2.1-2.2	Oct 31, 2013		Soil	S13-No00222						X																							
212 0.1-0.2	Oct 31, 2013		Soil	S13-No00223	X																	X	X	X		X	X	X			X		X
212 0.7-0.8	Oct 31, 2013		Soil	S13-No00224	X																			X									
212 1.1-1.2	Oct 31, 2013		Soil	S13-No00225						X																							
3003	Oct 31, 2013		Soil	S13-No00226						X																							
226 0.1-0.2	Oct 31, 2013		Soil	S13-No00228						X																							

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 9:52 AM
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Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Total Phosphorous	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
boratory where analysis is conducted																																
elbourne Laboratory - NATA Site # 1254 & 14271														X																		X	
dney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
isbane Laboratory - NATA Site # 20794																																	
ternal Laboratory								X	X							X																	
26 0.5-0.6	Oct 31, 2013		Soil	S13-No00229	X																			X									
26 0.9-1.0	Oct 31, 2013		Soil	S13-No00230				X	X							X																	
26 2.6-2.7	Oct 31, 2013		Soil	S13-No00231						X																							
25 0.1-0.2	Oct 31, 2013		Soil	S13-No00232						X																							
25 0.4-0.5	Oct 31, 2013		Soil	S13-No00233	X																	X	X	X		X	X				X		
25 1.1-1.2	Oct 31, 2013		Soil	S13-No00234						X																							
25 3.3-3.4	Oct 31, 2013		Soil	S13-No00235						X																							
22 0.1-0.2	Oct 31, 2013		Soil	S13-No00236	X																	X	X	X		X	X				X		
22 0.9-1.0	Oct 31, 2013		Soil	S13-No00237	X																			X									
22 1.7-1.8	Oct 31, 2013		Soil	S13-No00238						X																							
22 2.7-2.8	Oct 31, 2013		Soil	S13-No00239						X																							

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 9:52 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:** **Phone:** **Fax:**	398243 02 8245 0300	**Due:** **Priority:** **Contact Name:**	Nov 8, 2013 5 Day Michelle Delandro
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Total Phosphorous	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
boratory where analysis is conducted																																
lbourne Laboratory - NATA Site # 1254 & 14271														X																		X	
dney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
isbane Laboratory - NATA Site # 20794																																	
ternal Laboratory								X	X							X																	
18 1.0-1.1	Oct 31, 2013		Soil	S13-No00240	X		X	X	X			X	X			X	X	X	X	X				X		X		X	X	X	X		X
18 1.8-1.9	Oct 31, 2013		Soil	S13-No00241	X		X	X	X			X	X			X	X	X	X	X				X		X		X	X	X	X		X
22 0.4-0.5	Oct 31, 2013		Soil	S13-No00242						X																							
20 0.1-0.2	Oct 31, 2013		Soil	S13-No00243						X																							
20 0.4-0.5	Oct 31, 2013		Soil	S13-No00244	X																	X	X	X		X	X	X			X		X
20 2.4-2.5	Oct 31, 2013		Soil	S13-No00245						X																							
20 3.4-3.5	Oct 31, 2013		Soil	S13-No00246						X																							
21 0.1-0.2	Oct 31, 2013		Soil	S13-No00247	X																	X	X	X		X	X				X		
21 0.4-0.5	Oct 31, 2013		Soil	S13-No00248	X																			X									
21 1.4-1.5	Oct 31, 2013		Soil	S13-No00249						X																							
21 2.9-3.0	Oct 31, 2013		Soil	S13-No00250						X																							

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 9:52 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	398243	**Due:**	Nov 8, 2013
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Michelle Delandro
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Total Phosphorous	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
boratory where analysis is conducted																																
lbourne Laboratory - NATA Site # 1254 & 14271														X																		X	
dney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
isbane Laboratory - NATA Site # 20794																																	
ternal Laboratory								X	X							X																	
21 3.4-3.5	Oct 31, 2013		Soil	S13-No00251						X																							
19 0.1-0.2	Oct 31, 2013		Soil	S13-No00252	X																	X		X									
19 0.4-0.5	Oct 31, 2013		Soil	S13-No00253	X																	X		X		X		X		X	X		X
19 1.0-1.5	Oct 31, 2013		Soil	S13-No00254		X																											
19 3.9-4.0	Oct 31, 2013		Soil	S13-No00255						X																							
17 0.9-1.0	Oct 31, 2013		Soil	S13-No00256		X																											
17 1.8-1.9	Oct 31, 2013		Soil	S13-No00257		X																											
31 0.1-0.2	Oct 31, 2013		Soil	S13-No00258	X																	X		X									
31 0.9-1.0	Oct 31, 2013		Soil	S13-No00259						X																							
31 1.4-1.5	Oct 31, 2013		Soil	S13-No00260						X																							
30 0.1-0.2	Oct 31, 2013		Soil	S13-No00261	X																			X									

Company Name:	JBS & G (NSW & WA) Pty Ltd					**Order No.:**																									**Received:**	Nov 1, 2013 9:52 AM	
Address:	Level 1, 50 Margaret St					**Report #:**	398243																								**Due:**	Nov 8, 2013	
	Sydney					**Phone:**	02 8245 0300																								**Priority:**	5 Day	
	NSW 2000					**Fax:**																									**Contact Name:**	Michelle Delandro	
Client Job No.:	URBAN GROWTH 43008																																
																															Eurofins | mgt Client Manager: Jean Heng		

Sample Detail					% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Total Phosphorous	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
laboratory where analysis is conducted																																	
elbourne Laboratory - NATA Site # 1254 & 14271														X																		X	
ydney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
risbane Laboratory - NATA Site # 20794																																	
xternal Laboratory								X	X							X																	
230 0.9-1.0	Oct 31, 2013		Soil	S13-No00262						X																								
230 1.5-1.6	Oct 31, 2013		Soil	S13-No00263						X																								
NSATE	Oct 31, 2013		Water	S13-No00264																	X	X		X	X	X				X			
S	Oct 31, 2013		Soil	S13-No00265																X					X									
219 1.9-2.0	Oct 31, 2013		Soil	S13-No00266	X			X	X		X			X	X	X																X	
217 0.9-1.0	Oct 31, 2013		Soil	S13-No00267	X		X	X	X			X	X			X	X	X	X	X				X		X		X	X	X	X		X
217 1.8-1.9	Oct 31, 2013		Soil	S13-No00268	X		X	X	X			X	X			X	X	X	X	X				X		X		X	X	X	X		X
3	Oct 31, 2013		Soil	S13-No00310																X					X									
219 0.9-1.0	Oct 31, 2013		Soil	S13-No00737						X																								
219 1.4-1.5	Oct 31, 2013		Soil	S13-No00738						X																								
220 1.4-1.5	Oct 31, 2013		Soil	S13-No00739						X																								

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 9:52 AM
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		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Michelle Delandro
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Total Phosphorous	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
aboratory where analysis is conducted																																	
elbourne Laboratory - NATA Site # 1254 & 14271														X																			X	
ydney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
risbane Laboratory - NATA Site # 20794																																	
xternal Laboratory								X	X							X																	
20 2.6-2.7	Oct 31, 2013		Soil	S13-No00740						X																							
21 0.9-1.0	Oct 31, 2013		Soil	S13-No00741						X																							
19 0.1-0.2	Oct 31, 2013		Soil	S13-No00742						X																							
16	Oct 31, 2013		Soil	S13-No00743						X																							

eurofins | mgt

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

Attention: **Michelle Delandro**

Report **398243-S**
Client Reference URBAN GROWTH 43008
Received Date Nov 01, 2013

Client Sample ID			**TP16 0.1-0.2**	**TP16 0.9-1.0**	**TP16 2.7-2.8**	**TP15 0.1-0.2**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S13-No00207**	**S13-No00208**	**S13-No00210**	**S13-No00211**
Date Sampled			**Oct 31, 2013**	**Oct 31, 2013**	**Oct 31, 2013**	**Oct 31, 2013**
Test/Reference	LOR	Unit				
% Moisture	0.1	%	16	16	-	13
Heavy Metals						
Arsenic	2	mg/kg	12	6.1	-	15
Cadmium	0.4	mg/kg	1.8	< 0.4	-	0.5
Chromium	5	mg/kg	46	13	-	21
Copper	5	mg/kg	110	20	-	18
Lead	5	mg/kg	96	14	-	41
Mercury	0.05	mg/kg	5.4	0.07	-	0.13
Nickel	5	mg/kg	11	< 5	-	10
Zinc	5	mg/kg	240	39	-	43
E.Coli	1	MPN/g	-	-	see attached	-
Faecal Coliforms	1	MPN/g	-	-	see attached	-
Salmonella	1	org/g	-	-	see attached	-

Client Sample ID			**TP15 0.4-0.5**	**TP14 0.1-0.2**	**TP14 1.4-1.5**	**TP12 0.1-0.2**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S13-No00212**	**S13-No00214**	**S13-No00217**	**S13-No00223**
Date Sampled			**Oct 31, 2013**	**Oct 31, 2013**	**Oct 31, 2013**	**Oct 31, 2013**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	< 20	-	< 20
TRH C10-C14	20	mg/kg	-	< 20	-	< 20
TRH C15-C28	50	mg/kg	-	< 50	-	< 50
TRH C29-C36	50	mg/kg	-	< 50	-	< 50
TRH C10-36 (Total)	50	mg/kg	-	< 50	-	< 50
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	-	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	-	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1	-	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2	-	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1	-	< 0.1

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP15 0.4-0.5 Soil S13-No00212 Oct 31, 2013	TP14 0.1-0.2 Soil S13-No00214 Oct 31, 2013	TP14 1.4-1.5 Soil S13-No00217 Oct 31, 2013	TP12 0.1-0.2 Soil S13-No00223 Oct 31, 2013
BTEX						
Xylenes - Total	0.3	mg/kg	-	< 0.3	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	112	-	111
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	-	< 0.5	-	< 0.5
TRH C6-C10	20	mg/kg	-	< 20	-	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	< 20	-	< 20
TRH >C10-C16	50	mg/kg	-	< 50	-	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50	-	< 50
TRH >C16-C34	100	mg/kg	-	< 100	-	< 100
TRH >C34-C40	100	mg/kg	-	< 100	-	< 100
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	-	< 0.5	-	< 0.5
Acenaphthylene	0.5	mg/kg	-	< 0.5	-	< 0.5
Anthracene	0.5	mg/kg	-	< 0.5	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	< 0.5	-	0.7
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	-	0.8
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	-	< 0.5	-	0.7
Benzo(g.h.i)perylene	0.5	mg/kg	-	< 0.5	-	0.7
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5	-	0.7
Chrysene	0.5	mg/kg	-	< 0.5	-	0.6
Dibenz(a.h)anthracene	0.5	mg/kg	-	< 0.5	-	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5	-	2.2
Fluorene	0.5	mg/kg	-	< 0.5	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5	-	< 0.5
Phenanthrene	0.5	mg/kg	-	< 0.5	-	1.1
Pyrene	0.5	mg/kg	-	< 0.5	-	2.1
Total PAH	0.5	mg/kg	-	< 0.5	-	9.6
Benzo(a)pyrene TEQ*	0.5	mg/kg	-	0.6	-	1.3
2-Fluorobiphenyl (surr.)	1	%	-	94	-	87
p-Terphenyl-d14 (surr.)	1	%	-	101	-	97
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	-	< 0.1
4.4'-DDD	0.05	mg/kg	-	< 0.05	-	< 0.05
4.4'-DDE	0.05	mg/kg	-	< 0.05	-	< 0.05
4.4'-DDT	0.05	mg/kg	-	< 0.05	-	< 0.05
a-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
Aldrin	0.05	mg/kg	-	< 0.05	-	< 0.05
b-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
d-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
Dieldrin	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan I	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan II	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin ketone	0.05	mg/kg	-	< 0.05	-	< 0.05
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	-	< 0.05

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP15 0.4-0.5 Soil S13-No00212 Oct 31, 2013	TP14 0.1-0.2 Soil S13-No00214 Oct 31, 2013	TP14 1.4-1.5 Soil S13-No00217 Oct 31, 2013	TP12 0.1-0.2 Soil S13-No00223 Oct 31, 2013
Organochlorine Pesticides						
Heptachlor	0.05	mg/kg	-	< 0.05	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	-	< 0.05
Methoxychlor	0.2	mg/kg	-	< 0.2	-	< 0.2
Toxaphene	1	mg/kg	-	< 1	-	< 1
Dibutylchlorendate (surr.)	1	%	-	86	-	77
Tetrachloro-m-xylene (surr.)	1	%	-	104	-	93
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	-	< 0.5	-	< 0.5
Aroclor-1232	0.5	mg/kg	-	< 0.5	-	< 0.5
Aroclor-1242	0.5	mg/kg	-	< 0.5	-	< 0.5
Aroclor-1248	0.5	mg/kg	-	< 0.5	-	< 0.5
Aroclor-1254	0.5	mg/kg	-	< 0.5	-	< 0.5
Aroclor-1260	0.5	mg/kg	-	< 0.5	-	< 0.5
Total PCB	0.5	mg/kg	-	< 0.5	-	< 0.5
Dibutylchlorendate (surr.)	1	%	-	86	-	77
Petroleum Hydrocarbons Silica Cleanup (TPH)						
TRH C10-C14 after Silica Cleanup (TPH)	50	mg/kg	-	< 50	-	< 50
TRH C15-C28 after Silica Cleanup (TPH)	100	mg/kg	-	< 100	-	< 100
TRH C29-C36 after Silica Cleanup (TPH)	100	mg/kg	-	< 100	-	< 100
TRH after Silica Cleanup (NEPM) *						
TRH >C10-C16 after Silica Cleanup	50	mg/kg	-	< 50	-	< 50
TRH >C16-C34 after Silica Cleanup	100	mg/kg	-	< 100	-	< 100
TRH >C34-C40 after Silica Cleanup	100	mg/kg	-	< 100	-	< 100
% Moisture	0.1	%	20	19	13	14
Heavy Metals						
Arsenic	2	mg/kg	10	11	4.6	13
Cadmium	0.4	mg/kg	< 0.4	0.6	< 0.4	< 0.4
Chromium	5	mg/kg	15	25	< 5	15
Copper	5	mg/kg	19	23	14	43
Lead	5	mg/kg	14	25	5.1	55
Mercury	0.05	mg/kg	< 0.05	0.72	< 0.05	0.43
Nickel	5	mg/kg	< 5	11	< 5	9.5
Zinc	5	mg/kg	20	41	14	310

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP12 0.7-0.8 Soil S13-No00224 Oct 31, 2013	TP26 0.5-0.6 Soil S13-No00229 Oct 31, 2013	TP26 0.9-1.0 Soil S13-No00230 Oct 31, 2013	TP25 0.4-0.5 Soil S13-No00233 Oct 31, 2013
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	-	-	< 20
TRH C10-C14	20	mg/kg	-	-	-	< 20
TRH C15-C28	50	mg/kg	-	-	-	< 50

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP12 0.7-0.8 Soil S13-No00224 Oct 31, 2013	TP26 0.5-0.6 Soil S13-No00229 Oct 31, 2013	TP26 0.9-1.0 Soil S13-No00230 Oct 31, 2013	TP25 0.4-0.5 Soil S13-No00233 Oct 31, 2013
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C29-C36	50	mg/kg	-	-	-	< 50
TRH C10-36 (Total)	50	mg/kg	-	-	-	< 50
BTEX						
Benzene	0.1	mg/kg	-	-	-	< 0.1
Toluene	0.1	mg/kg	-	-	-	< 0.1
Ethylbenzene	0.1	mg/kg	-	-	-	< 0.1
m&p-Xylenes	0.2	mg/kg	-	-	-	< 0.2
o-Xylene	0.1	mg/kg	-	-	-	< 0.1
Xylenes - Total	0.3	mg/kg	-	-	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	-	-	119
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	-	-	-	< 0.5
TRH C6-C10	20	mg/kg	-	-	-	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	-	-	< 20
TRH >C10-C16	50	mg/kg	-	-	-	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	-	-	< 50
TRH >C16-C34	100	mg/kg	-	-	-	< 100
TRH >C34-C40	100	mg/kg	-	-	-	< 100
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	-	-	-	< 0.5
Acenaphthylene	0.5	mg/kg	-	-	-	< 0.5
Anthracene	0.5	mg/kg	-	-	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	-	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	-	-	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	-	-	-	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	-	-	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	-	-	< 0.5
Chrysene	0.5	mg/kg	-	-	-	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	-	-	-	< 0.5
Fluoranthene	0.5	mg/kg	-	-	-	< 0.5
Fluorene	0.5	mg/kg	-	-	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	-	-	< 0.5
Naphthalene	0.5	mg/kg	-	-	-	< 0.5
Phenanthrene	0.5	mg/kg	-	-	-	< 0.5
Pyrene	0.5	mg/kg	-	-	-	< 0.5
Total PAH	0.5	mg/kg	-	-	-	< 0.5
Benzo(a)pyrene TEQ*	0.5	mg/kg	-	-	-	< 0.5
2-Fluorobiphenyl (surr.)	1	%	-	-	-	88
p-Terphenyl-d14 (surr.)	1	%	-	-	-	97
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	-	-	< 0.1
4.4'-DDD	0.05	mg/kg	-	-	-	< 0.05
4.4'-DDE	0.05	mg/kg	-	-	-	< 0.05
4.4'-DDT	0.05	mg/kg	-	-	-	< 0.05
a-BHC	0.05	mg/kg	-	-	-	< 0.05
Aldrin	0.05	mg/kg	-	-	-	< 0.05
b-BHC	0.05	mg/kg	-	-	-	< 0.05
d-BHC	0.05	mg/kg	-	-	-	< 0.05

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP12 0.7-0.8 Soil S13-No00224 Oct 31, 2013	TP26 0.5-0.6 Soil S13-No00229 Oct 31, 2013	TP26 0.9-1.0 Soil S13-No00230 Oct 31, 2013	TP25 0.4-0.5 Soil S13-No00233 Oct 31, 2013
Organochlorine Pesticides						
Dieldrin	0.05	mg/kg	-	-	-	< 0.05
Endosulfan I	0.05	mg/kg	-	-	-	< 0.05
Endosulfan II	0.05	mg/kg	-	-	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	-	-	< 0.05
Endrin	0.05	mg/kg	-	-	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	-	-	< 0.05
Endrin ketone	0.05	mg/kg	-	-	-	< 0.05
g-BHC (Lindane)	0.05	mg/kg	-	-	-	< 0.05
Heptachlor	0.05	mg/kg	-	-	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	-	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	-	-	< 0.05
Methoxychlor	0.2	mg/kg	-	-	-	< 0.2
Toxaphene	1	mg/kg	-	-	-	< 1
Dibutylchlorendate (surr.)	1	%	-	-	-	78
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	92
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1232	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1242	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1248	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1254	0.5	mg/kg	-	-	-	< 0.5
Aroclor-1260	0.5	mg/kg	-	-	-	< 0.5
Total PCB	0.5	mg/kg	-	-	-	< 0.5
Dibutylchlorendate (surr.)	1	%	-	-	-	78
% Moisture	0.1	%	13	9.6	-	14
Heavy Metals						
Arsenic	2	mg/kg	14	5.5	-	5.6
Cadmium	0.4	mg/kg	< 0.4	< 0.4	-	< 0.4
Chromium	5	mg/kg	12	12	-	15
Copper	5	mg/kg	18	< 5	-	16
Lead	5	mg/kg	10	14	-	56
Mercury	0.05	mg/kg	< 0.05	0.12	-	0.40
Nickel	5	mg/kg	< 5	< 5	-	< 5
Zinc	5	mg/kg	17	6.1	-	59
E.Coli	1	MPN/g	-	-	see attached	-
Faecal Coliforms	1	MPN/g	-	-	see attached	-
Salmonella	1	org/g	-	-	see attached	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP22 0.1-0.2 Soil S13-No00236 Oct 31, 2013	TP22 0.9-1.0 Soil S13-No00237 Oct 31, 2013	TP18 1.0-1.1 Soil S13-No00240 Oct 31, 2013	TP18 1.8-1.9 Soil S13-No00241 Oct 31, 2013
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	-	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	-	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	-	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	-	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	-	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	-	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	-	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	113	-	116	114
Aromatic & Aliphatic (TRH) - NP						
TRH >C35 Aromatic	200	mg/kg	-	-	< 200	< 200
TRH >C35 Aliphatic	1000	mg/kg	-	-	< 1000	< 1000
TRH C10-C15 Aliphatic	500	mg/kg	-	-	< 500	< 500
TRH C10-C15 Aromatic	50	mg/kg	-	-	< 50	< 50
TRH C16-C35 Aliphatic	1000	mg/kg	-	-	< 1000	< 1000
TRH C16-C35 Aromatic	50	mg/kg	-	-	< 50	< 50
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	-	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	-	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	-	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	-	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	-	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	< 0.5	-	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	-	-	-
Anthracene	0.5	mg/kg	< 0.5	-	-	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	-	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	-	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	-	-	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-	-	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	-	-
Chrysene	0.5	mg/kg	< 0.5	-	-	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	-	-
Fluoranthene	0.5	mg/kg	< 0.5	-	-	-
Fluorene	0.5	mg/kg	< 0.5	-	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	-	-
Naphthalene	0.5	mg/kg	< 0.5	-	-	-
Phenanthrene	0.5	mg/kg	< 0.5	-	-	-
Pyrene	0.5	mg/kg	< 0.5	-	-	-
Total PAH	0.5	mg/kg	< 0.5	-	-	-
Benzo(a)pyrene TEQ*	0.5	mg/kg	0.6	-	-	-
2-Fluorobiphenyl (surr.)	1	%	89	-	-	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP22 0.1-0.2 Soil S13-No00236 Oct 31, 2013	TP22 0.9-1.0 Soil S13-No00237 Oct 31, 2013	TP18 1.0-1.1 Soil S13-No00240 Oct 31, 2013	TP18 1.8-1.9 Soil S13-No00241 Oct 31, 2013
Polycyclic Aromatic Hydrocarbons						
p-Terphenyl-d14 (surr.)	1	%	97	-	-	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	-	-
4.4'-DDD	0.05	mg/kg	< 0.05	-	-	-
4.4'-DDE	0.05	mg/kg	< 0.05	-	-	-
4.4'-DDT	0.05	mg/kg	< 0.05	-	-	-
a-BHC	0.05	mg/kg	< 0.05	-	-	-
Aldrin	0.05	mg/kg	< 0.05	-	-	-
b-BHC	0.05	mg/kg	< 0.05	-	-	-
d-BHC	0.05	mg/kg	< 0.05	-	-	-
Dieldrin	0.05	mg/kg	< 0.05	-	-	-
Endosulfan I	0.05	mg/kg	< 0.05	-	-	-
Endosulfan II	0.05	mg/kg	< 0.05	-	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	-
Endrin	0.05	mg/kg	< 0.05	-	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	-
Endrin ketone	0.05	mg/kg	< 0.05	-	-	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	-	-
Heptachlor	0.05	mg/kg	< 0.05	-	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	-
Methoxychlor	0.2	mg/kg	< 0.2	-	-	-
Toxaphene	1	mg/kg	< 1	-	-	-
Dibutylchlorendate (surr.)	1	%	80	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	96	-	-	-
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1232	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1242	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1248	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1254	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1260	0.5	mg/kg	< 0.5	-	-	-
Total PCB	0.5	mg/kg	< 0.5	-	-	-
Dibutylchlorendate (surr.)	1	%	80	-	-	-
Petroleum Hydrocarbons Silica Cleanup (TPH)						
TRH C10-C14 after Silica Cleanup (TPH)	50	mg/kg	-	-	< 50	< 50
TRH C15-C28 after Silica Cleanup (TPH)	100	mg/kg	-	-	< 100	< 100
TRH C29-C36 after Silica Cleanup (TPH)	100	mg/kg	-	-	< 100	< 100
TRH after Silica Cleanup (NEPM) *						
TRH >C10-C16 after Silica Cleanup	50	mg/kg	-	-	< 50	< 50
TRH >C16-C34 after Silica Cleanup	100	mg/kg	-	-	< 100	< 100
TRH >C34-C40 after Silica Cleanup	100	mg/kg	-	-	< 100	< 100
Chloride	10	mg/kg	-	-	< 10	< 10
Nitrate (as N)	0.1	mg/kg	-	-	0.3	0.3
Nitrite (as N)	0.1	mg/kg	-	-	< 0.1	< 0.1
Sulphate (as S)	10	mg/kg	-	-	< 10	< 10
Phosphorus	10	mg/kg	-	-	2700	3400

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP22 0.1-0.2 Soil S13-No00236 Oct 31, 2013	TP22 0.9-1.0 Soil S13-No00237 Oct 31, 2013	TP18 1.0-1.1 Soil S13-No00240 Oct 31, 2013	TP18 1.8-1.9 Soil S13-No00241 Oct 31, 2013
Sulphur	100	mg/kg	-	-	200	530
% Moisture	0.1	%	7.9	13	2.7	5.1
Alkalinity						
Total Alkalinity (as CaCO3)	50	mg/kg	-	-	< 50	< 50
Total Nitrogen Set (as N)						
Nitrate & Nitrite (as N)	0.1	mg/kg	-	-	0.3	0.4
Total Kjeldahl Nitrogen (as N)	10	mg/kg	-	-	310	500
Total Nitrogen (as N)	10	mg/kg	-	-		500
Heavy Metals						
Arsenic	2	mg/kg	4.6	5.5	< 2	2.1
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	9.4	9.3	12	< 5
Copper	5	mg/kg	10.0	15	32	18
Lead	5	mg/kg	8.7	12	< 5	< 5
Mercury	0.05	mg/kg	< 0.05	< 0.05	0.07	0.18
Nickel	5	mg/kg	< 5	< 5	39	7.0
Zinc	5	mg/kg	8.9	15	19	43
E.Coli	1	MPN/g	-	-	see attached	see attached
Faecal Coliforms	1	MPN/g	-	-	see attached	see attached
Salmonella	1	org/g	-	-	see attached	see attached

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP20 0.4-0.5 Soil S13-No00244 Oct 31, 2013	TP21 0.1-0.2 Soil S13-No00247 Oct 31, 2013	TP21 0.4-0.5 Soil S13-No00248 Oct 31, 2013	TP19 0.1-0.2 Soil S13-No00252 Oct 31, 2013
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	-	-
TRH C10-C14	20	mg/kg	< 20	< 20	-	-
TRH C15-C28	50	mg/kg	< 50	< 50	-	-
TRH C29-C36	50	mg/kg	< 50	< 50	-	-
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	-	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	-	-
Toluene	0.1	mg/kg	< 0.1	< 0.1	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	-	-
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-	-
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	-	-
4-Bromofluorobenzene (surr.)	1	%	112	72	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	-	-
TRH C6-C10	20	mg/kg	< 20	< 20	-	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	-	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP20 0.4-0.5 Soil S13-No00244 Oct 31, 2013	TP21 0.1-0.2 Soil S13-No00247 Oct 31, 2013	TP21 0.4-0.5 Soil S13-No00248 Oct 31, 2013	TP19 0.1-0.2 Soil S13-No00252 Oct 31, 2013
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	-	-
TRH >C16-C34	100	mg/kg	< 100	< 100	-	-
TRH >C34-C40	100	mg/kg	< 100	< 100	-	-
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Total PAH	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(a)pyrene TEQ*	0.5	mg/kg	0.6	0.6	-	0.6
2-Fluorobiphenyl (surr.)	1	%	86	89	-	84
p-Terphenyl-d14 (surr.)	1	%	95	99	-	92
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	-	-
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	-	-
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	-	-
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	-	-
a-BHC	0.05	mg/kg	< 0.05	< 0.05	-	-
Aldrin	0.05	mg/kg	< 0.05	< 0.05	-	-
b-BHC	0.05	mg/kg	< 0.05	< 0.05	-	-
d-BHC	0.05	mg/kg	< 0.05	< 0.05	-	-
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	-	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	-	-
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	-	-
Methoxychlor	0.2	mg/kg	< 0.2	< 0.2	-	-
Toxaphene	1	mg/kg	< 1	< 1	-	-
Dibutylchlorendate (surr.)	1	%	73	76	-	-
Tetrachloro-m-xylene (surr.)	1	%	89	89	-	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP20 0.4-0.5 Soil S13-No00244 Oct 31, 2013	TP21 0.1-0.2 Soil S13-No00247 Oct 31, 2013	TP21 0.4-0.5 Soil S13-No00248 Oct 31, 2013	TP19 0.1-0.2 Soil S13-No00252 Oct 31, 2013
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	< 0.5	< 0.5	-	-
Aroclor-1232	0.5	mg/kg	< 0.5	< 0.5	-	-
Aroclor-1242	0.5	mg/kg	< 0.5	< 0.5	-	-
Aroclor-1248	0.5	mg/kg	< 0.5	< 0.5	-	-
Aroclor-1254	0.5	mg/kg	< 0.5	< 0.5	-	-
Aroclor-1260	0.5	mg/kg	< 0.5	< 0.5	-	-
Total PCB	0.5	mg/kg	< 0.5	< 0.5	-	-
Dibutylchlorendate (surr.)	1	%	73	76	-	-
Petroleum Hydrocarbons Silica Cleanup (TPH)						
TRH C10-C14 after Silica Cleanup (TPH)	50	mg/kg	< 50	-	-	-
TRH C15-C28 after Silica Cleanup (TPH)	100	mg/kg	< 100	-	-	-
TRH C29-C36 after Silica Cleanup (TPH)	100	mg/kg	< 100	-	-	-
TRH after Silica Cleanup (NEPM) *						
TRH >C10-C16 after Silica Cleanup	50	mg/kg	< 50	-	-	-
TRH >C16-C34 after Silica Cleanup	100	mg/kg	< 100	-	-	-
TRH >C34-C40 after Silica Cleanup	100	mg/kg	< 100	-	-	-
% Moisture	0.1	%	12	10	11	11
Heavy Metals						
Arsenic	2	mg/kg	6.7	6.1	5.7	10.0
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	16	11	12	11
Copper	5	mg/kg	28	28	17	31
Lead	5	mg/kg	20	15	17	16
Mercury	0.05	mg/kg	0.82	0.74	0.41	0.13
Nickel	5	mg/kg	7.3	< 5	< 5	15
Zinc	5	mg/kg	89	50	42	68

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP19 0.4-0.5 Soil S13-No00253 Oct 31, 2013	TP31 0.1-0.2 Soil S13-No00258 Oct 31, 2013	TP30 0.1-0.2 Soil S13-No00261 Oct 31, 2013	TS Soil S13-No00265 Oct 31, 2013
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	-	-	88%
TRH C10-C14	20	mg/kg	< 20	-	-	-
TRH C15-C28	50	mg/kg	< 50	-	-	-
TRH C29-C36	50	mg/kg	< 50	-	-	-
TRH C10-36 (Total)	50	mg/kg	< 50	-	-	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	-	-	88%
Toluene	0.1	mg/kg	< 0.1	-	-	88%
Ethylbenzene	0.1	mg/kg	< 0.1	-	-	88%
m&p-Xylenes	0.2	mg/kg	< 0.2	-	-	88%
o-Xylene	0.1	mg/kg	< 0.1	-	-	88%

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP19 0.4-0.5 Soil S13-No00253 Oct 31, 2013	TP31 0.1-0.2 Soil S13-No00258 Oct 31, 2013	TP30 0.1-0.2 Soil S13-No00261 Oct 31, 2013	TS Soil S13-No00265 Oct 31, 2013
BTEX						
Xylenes - Total	0.3	mg/kg	< 0.3	-	-	88%
4-Bromofluorobenzene (surr.)	1	%	113	-	-	129
Aromatic & Aliphatic (TRH) - NP						
TRH >C35 Aromatic	200	mg/kg	< 200	-	-	-
TRH >C35 Aliphatic	1000	mg/kg	< 1000	-	-	-
TRH C10-C15 Aliphatic	500	mg/kg	< 500	-	-	-
TRH C10-C15 Aromatic	50	mg/kg	< 50	-	-	-
TRH C16-C35 Aliphatic	1000	mg/kg	< 1000	-	-	-
TRH C16-C35 Aromatic	50	mg/kg	< 50	-	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	-	-	-
TRH C6-C10	20	mg/kg	< 20	-	-	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	-	-	-
TRH >C10-C16	50	mg/kg	< 50	-	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-	-	-
TRH >C16-C34	100	mg/kg	< 100	-	-	-
TRH >C34-C40	100	mg/kg	< 100	-	-	-
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-	-
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Chrysene	0.5	mg/kg	< 0.5	< 0.5	-	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	-
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Total PAH	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(a)pyrene TEQ*	0.5	mg/kg	0.6	0.6	-	-
2-Fluorobiphenyl (surr.)	1	%	88	88	-	-
p-Terphenyl-d14 (surr.)	1	%	98	94	-	-
Petroleum Hydrocarbons Silica Cleanup (TPH)						
TRH C10-C14 after Silica Cleanup (TPH)	50	mg/kg	< 50	-	-	-
TRH C15-C28 after Silica Cleanup (TPH)	100	mg/kg	< 100	-	-	-
TRH C29-C36 after Silica Cleanup (TPH)	100	mg/kg	< 100	-	-	-
TRH after Silica Cleanup (NEPM) *						
TRH >C10-C16 after Silica Cleanup	50	mg/kg	< 50	-	-	-
TRH >C16-C34 after Silica Cleanup	100	mg/kg	< 100	-	-	-
TRH >C34-C40 after Silica Cleanup	100	mg/kg	< 100	-	-	-
% Moisture	0.1	%	12	8.7	17	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP19 0.4-0.5 Soil S13-No00253 Oct 31, 2013	TP31 0.1-0.2 Soil S13-No00258 Oct 31, 2013	TP30 0.1-0.2 Soil S13-No00261 Oct 31, 2013	TS Soil S13-No00265 Oct 31, 2013
Heavy Metals						
Arsenic	2	mg/kg	7.4	13	7.4	-
Cadmium	0.4	mg/kg	< 0.4	0.7	0.8	-
Chromium	5	mg/kg	14	31	23	-
Copper	5	mg/kg	31	17	39	-
Lead	5	mg/kg	100	26	51	-
Mercury	0.05	mg/kg	0.18	0.12	1.7	-
Nickel	5	mg/kg	13	17	9.7	-
Zinc	5	mg/kg	130	51	190	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP19 1.9-2.0 Soil S13-No00266 Oct 31, 2013	TP17 0.9-1.0 Soil S13-No00267 Oct 31, 2013	TP17 1.8-1.9 Soil S13-No00268 Oct 31, 2013	TB Soil S13-No00310 Oct 31, 2013
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	-	< 20	< 20	-
TRH C15-C28	50	mg/kg	-	< 50	< 50	-
TRH C29-C36	50	mg/kg	-	< 50	< 50	-
TRH C10-36 (Total)	50	mg/kg	-	< 50	< 50	-
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	-	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	120	115	117
Aromatic & Aliphatic (TRH) - NP						
TRH >C35 Aromatic	200	mg/kg	-	< 200	< 200	-
TRH >C35 Aliphatic	1000	mg/kg	-	< 1000	< 1000	-
TRH C10-C15 Aliphatic	500	mg/kg	-	< 500	< 500	-
TRH C10-C15 Aromatic	50	mg/kg	-	< 50	< 50	-
TRH C16-C35 Aliphatic	1000	mg/kg	-	< 1000	< 1000	-
TRH C16-C35 Aromatic	50	mg/kg	-	< 50	< 50	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	-	< 0.5	< 0.5	-
TRH C6-C10	20	mg/kg	-	< 20	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	< 20	< 20	-
TRH >C10-C16	50	mg/kg	-	< 50	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50	< 50	-
TRH >C16-C34	100	mg/kg	-	< 100	< 100	-
TRH >C34-C40	100	mg/kg	-	< 100	< 100	-
Petroleum Hydrocarbons Silica Cleanup (TPH)						
TRH C10-C14 after Silica Cleanup (TPH)	50	mg/kg	-	< 50	< 50	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP19 1.9-2.0 Soil S13-No00266 Oct 31, 2013	TP17 0.9-1.0 Soil S13-No00267 Oct 31, 2013	TP17 1.8-1.9 Soil S13-No00268 Oct 31, 2013	TB Soil S13-No00310 Oct 31, 2013
Petroleum Hydrocarbons Silica Cleanup (TPH)						
TRH C15-C28 after Silica Cleanup (TPH)	100	mg/kg	-	< 100	< 100	-
TRH C29-C36 after Silica Cleanup (TPH)	100	mg/kg	-	< 100	< 100	-
TRH after Silica Cleanup (NEPM) *						
TRH >C10-C16 after Silica Cleanup	50	mg/kg	-	< 50	< 50	-
TRH >C16-C34 after Silica Cleanup	100	mg/kg	-	< 100	< 100	-
TRH >C34-C40 after Silica Cleanup	100	mg/kg	-	< 100	< 100	-
Chloride	10	mg/kg	-	< 10	< 10	-
Nitrate (as N)	0.1	mg/kg	-	0.5	0.3	-
Nitrite (as N)	0.1	mg/kg	-	< 0.1	< 0.1	-
Organic Matter %	0.01	% w/w	2.9	-	-	-
pH (1:5 Aqueous extract)	0.1	units	8.1	-	-	-
Sulphate (as S)	10	mg/kg	-	< 10	< 10	-
Phosphorus	10	mg/kg	-	3300	4000	-
Sulphur	100	mg/kg	-	340	-	-
% Moisture	0.1	%	19	1.6	2.3	-
Alkalinity						
Total Alkalinity (as CaCO3)	50	mg/kg	-	< 50	< 50	-
Total Nitrogen Set (as N)						
Nitrate & Nitrite (as N)	0.1	mg/kg	-	0.5	0.3	-
Total Kjeldahl Nitrogen (as N)	10	mg/kg	-	1000	800	-
Total Nitrogen (as N)	10	mg/kg	-	1000	800	-
Cation Exchange Capacity						
Conductivity (1:5 aqueous extract at 25°C)	10	uS/cm	53	-	-	-
Cation Exchange Capacity	0.05	meq/100g	25	-	-	-
Heavy Metals						
Arsenic	2	mg/kg	-	< 2	< 2	-
Cadmium	0.4	mg/kg	-	< 0.4	< 0.4	-
Chromium	5	mg/kg	-	21	14	-
Copper	5	mg/kg	-	49	43	-
Iron	5	mg/kg	34000	-	-	-
Lead	5	mg/kg	-	10	8.7	-
Mercury	0.05	mg/kg	-	0.29	0.26	-
Nickel	5	mg/kg	-	50	37	-
Zinc	5	mg/kg	-	83	55	-
E.Coli	1	MPN/g	see attached	see attached	see attached	-
Faecal Coliforms	1	MPN/g	see attached	see attached	see attached	-
Salmonella	1	org/g	see attached	see attached	see attached	-

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
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Nov 04, 2013	14 Day
- Method: E004 Petroleum Hydrocarbons (TPH)			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Nov 04, 2013	14 Day
- Method: LM-LTM-ORG2010			
BTEX	Sydney	Nov 04, 2013	14 Day
- Method: E029/E016 BTEX			
Aromatic & Aliphatic (TRH) - NP	Sydney	Nov 04, 2013	14 Day
- Method: E012 Aromatic & Aliphatic (TPH)			
Polycyclic Aromatic Hydrocarbons	Sydney	Nov 04, 2013	14 Day
- Method: E007 Polyaromatic Hydrocarbons (PAH)			
Organochlorine Pesticides	Sydney	Nov 04, 2013	14 Day
- Method: E013 Organochlorine Pesticides (OC)			
Polychlorinated Biphenyls (PCB)	Sydney	Nov 04, 2013	28 Day
- Method: E013 Polychlorinated Biphenyls (PCB)			
TRH after Silica Cleanup (NEPM) *	Sydney	Nov 04, 2013	14 Day
- Method: LM-LTM-ORG2010			
Chloride	Sydney	Nov 05, 2013	28 Day
- Method: E033 /E045 /E047 Chloride			
Nitrate (as N)	Sydney	Nov 04, 2013	28 Day
- Method: E037 /E051 Nitrate as N			
Nitrite (as N)	Sydney	Nov 04, 2013	28 Day
- Method: E037 /E051 Nitrite as N			
Organic Matter %	Melbourne	Nov 06, 2013	5 Day
- Method: APHA 2540E Fixed and Volatile Solids Ignited at 550C			
pH (1:5 Aqueous extract)	Sydney	Nov 05, 2013	7 Day
- Method: E018.2 pH			
Sulphate (as S)	Sydney	Nov 05, 2013	28 Day
- Method: E045 Sulphate			
Phosphorus	Sydney	Nov 08, 2013	180 Day
- Method: E020/E030 Metals			
Sulphur	Sydney	Nov 04, 2013	7 Day
- Method: E020/E030 Metals			
% Moisture	Sydney	Nov 04, 2013	28 Day
- Method: E005 Moisture Content			
Alkalinity	Sydney	Nov 05, 2013	0 Day
Total Nitrogen Set (as N)			
Nitrate & Nitrite (as N)	Sydney	Nov 04, 2013	28 Day
- Method: E037 /E051 NOx (as N)			
Total Kjeldahl Nitrogen (as N)	Sydney	Nov 04, 2013	28 Day
- Method: E039/E053 Unfiltered Total Kjeldahl Nitrogen as N			
Cation Exchange Capacity	Melbourne	Nov 04, 2013	28 Day
- Method: 15B1, 15B2, 15B3 Soil Chemical Methods			
- Method: Rayment and Lyons			
Metals M8	Sydney	Nov 04, 2013	28 Day
- Method: E022 Acid Extractable metals in Soils & E026 Mercury			
Heavy Metals	Sydney	Nov 04, 2013	180 Day
- Method: E022 Acid Extractable metals in Soils			
Petroleum Hydrocarbons Silica Cleanup (TPH)	Sydney	Nov 04, 2013	14 Day
- Method: E004 Petroleum Hydrocarbons Silica Cleanup (TPH)			

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 9:52 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	398243	**Due:**	Nov 8, 2013
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Michelle Delandro
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail	% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Total Phosphorous	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
boratory where analysis is conducted																													
lbourne Laboratory - NATA Site # 1254 & 14271										X																		X	
dney Laboratory - NATA Site # 18217	X	X	X			X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
isbane Laboratory - NATA Site # 20794																													
ternal Laboratory				X	X							X																	
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																										
16 0.1-0.2	Oct 31, 2013		Soil	S13-No00207	X																X									
16 0.9-1.0	Oct 31, 2013		Soil	S13-No00208	X																X									
16 1.4-1.5	Oct 31, 2013		Soil	S13-No00209						X																				
16 2.7-2.8	Oct 31, 2013		Soil	S13-No00210				X	X						X															
15 0.1-0.2	Oct 31, 2013		Soil	S13-No00211	X																X									
15 0.4-0.5	Oct 31, 2013		Soil	S13-No00212	X																X									
15 1.4-1.5	Oct 31, 2013		Soil	S13-No00213						X																				
14 0.1-0.2	Oct 31, 2013		Soil	S13-No00214	X														X	X	X		X	X	X			X		X
14 0.4-0.5	Oct 31, 2013		Soil	S13-No00215						X																				
14 0.9-1.0	Oct 31, 2013		Soil	S13-No00216						X																				

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Client Job No.:	URBAN GROWTH 43008				

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boratory where analysis is conducted																																
elbourne Laboratory - NATA Site # 1254 & 14271														X																		X	
rdney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
risbane Laboratory - NATA Site # 20794																																	
xternal Laboratory								X	X							X																	
214 1.4-1.5	Oct 31, 2013		Soil	S13-No00217	X																			X									
214 2.5-2.7	Oct 31, 2013		Soil	S13-No00218						X																							
213 0.1-0.2	Oct 31, 2013		Soil	S13-No00219						X																							
213 0.5-0.6	Oct 31, 2013		Soil	S13-No00220						X																							
213 1.0-1.1	Oct 31, 2013		Soil	S13-No00221						X																							
213 2.1-2.2	Oct 31, 2013		Soil	S13-No00222						X																							
212 0.1-0.2	Oct 31, 2013		Soil	S13-No00223	X																	X	X	X		X	X	X			X		X
212 0.7-0.8	Oct 31, 2013		Soil	S13-No00224	X																			X									
212 1.1-1.2	Oct 31, 2013		Soil	S13-No00225						X																							
3003	Oct 31, 2013		Soil	S13-No00226						X																							
226 0.1-0.2	Oct 31, 2013		Soil	S13-No00228						X																							

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boratory where analysis is conducted																																
elbourne Laboratory - NATA Site # 1254 & 14271														X																		X	
dney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
isbane Laboratory - NATA Site # 20794																																	
ternal Laboratory								X	X							X																	
26 0.5-0.6	Oct 31, 2013		Soil	S13-No00229	X																			X									
26 0.9-1.0	Oct 31, 2013		Soil	S13-No00230				X	X							X																	
26 2.6-2.7	Oct 31, 2013		Soil	S13-No00231						X																							
25 0.1-0.2	Oct 31, 2013		Soil	S13-No00232						X																							
25 0.4-0.5	Oct 31, 2013		Soil	S13-No00233	X																	X	X	X		X	X				X		
25 1.1-1.2	Oct 31, 2013		Soil	S13-No00234						X																							
25 3.3-3.4	Oct 31, 2013		Soil	S13-No00235						X																							
22 0.1-0.2	Oct 31, 2013		Soil	S13-No00236	X																	X	X	X		X	X				X		
22 0.9-1.0	Oct 31, 2013		Soil	S13-No00237	X																			X									
22 1.7-1.8	Oct 31, 2013		Soil	S13-No00238						X																							
22 2.7-2.8	Oct 31, 2013		Soil	S13-No00239						X																							

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Client Job No.:	URBAN GROWTH 43008				

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Sample Detail					% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Total Phosphorous	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
boratory where analysis is conducted																																
lbourne Laboratory - NATA Site # 1254 & 14271														X																		X	
dney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
isbane Laboratory - NATA Site # 20794																																	
ternal Laboratory								X	X							X																	
18 1.0-1.1	Oct 31, 2013		Soil	S13-No00240	X		X	X	X			X	X			X	X	X	X	X				X		X		X	X	X	X		X
18 1.8-1.9	Oct 31, 2013		Soil	S13-No00241	X		X	X	X			X	X			X	X	X	X	X				X		X		X	X	X	X		X
22 0.4-0.5	Oct 31, 2013		Soil	S13-No00242						X																							
20 0.1-0.2	Oct 31, 2013		Soil	S13-No00243						X																							
20 0.4-0.5	Oct 31, 2013		Soil	S13-No00244	X																	X	X	X		X	X	X			X		X
20 2.4-2.5	Oct 31, 2013		Soil	S13-No00245						X																							
20 3.4-3.5	Oct 31, 2013		Soil	S13-No00246						X																							
21 0.1-0.2	Oct 31, 2013		Soil	S13-No00247	X																	X	X	X		X	X				X		
21 0.4-0.5	Oct 31, 2013		Soil	S13-No00248	X																			X									
21 1.4-1.5	Oct 31, 2013		Soil	S13-No00249						X																							
21 2.9-3.0	Oct 31, 2013		Soil	S13-No00250						X																							

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		Fax:		**Contact Name:**	Michelle Delandro
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Total Phosphorous	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
boratory where analysis is conducted																																
lbourne Laboratory - NATA Site # 1254 & 14271														X																		X	
dney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
isbane Laboratory - NATA Site # 20794																																	
ternal Laboratory								X	X							X																	
21 3.4-3.5	Oct 31, 2013		Soil	S13-No00251						X																							
19 0.1-0.2	Oct 31, 2013		Soil	S13-No00252	X																	X		X									
19 0.4-0.5	Oct 31, 2013		Soil	S13-No00253	X																	X		X		X		X		X	X		X
19 1.0-1.5	Oct 31, 2013		Soil	S13-No00254		X																											
19 3.9-4.0	Oct 31, 2013		Soil	S13-No00255						X																							
17 0.9-1.0	Oct 31, 2013		Soil	S13-No00256		X																											
17 1.8-1.9	Oct 31, 2013		Soil	S13-No00257		X																											
31 0.1-0.2	Oct 31, 2013		Soil	S13-No00258	X																	X		X									
31 0.9-1.0	Oct 31, 2013		Soil	S13-No00259						X																							
31 1.4-1.5	Oct 31, 2013		Soil	S13-No00260						X																							
30 0.1-0.2	Oct 31, 2013		Soil	S13-No00261	X																			X									

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Address:	Level 1, 50 Margaret St					**Report #:**	398243																								**Due:**	Nov 8, 2013	
	Sydney					**Phone:**	02 8245 0300																								**Priority:**	5 Day	
	NSW 2000					**Fax:**																									**Contact Name:**	Michelle Delandro	
Client Job No.:	URBAN GROWTH 43008																																
																															Eurofins | mgt Client Manager: Jean Heng		

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laboratory where analysis is conducted																																	
elbourne Laboratory - NATA Site # 1254 & 14271														X																		X	
ydney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
risbane Laboratory - NATA Site # 20794																																	
xternal Laboratory								X	X							X																	
230 0.9-1.0	Oct 31, 2013		Soil	S13-No00262						X																								
230 1.5-1.6	Oct 31, 2013		Soil	S13-No00263						X																								
NSATE	Oct 31, 2013		Water	S13-No00264																	X	X		X	X	X				X			
S	Oct 31, 2013		Soil	S13-No00265																X					X									
219 1.9-2.0	Oct 31, 2013		Soil	S13-No00266	X			X	X		X			X	X	X																X	
217 0.9-1.0	Oct 31, 2013		Soil	S13-No00267	X		X	X	X			X	X			X	X	X	X	X				X		X		X	X	X	X		X
217 1.8-1.9	Oct 31, 2013		Soil	S13-No00268	X		X	X	X			X	X			X	X	X	X	X				X		X		X	X	X	X		X
3	Oct 31, 2013		Soil	S13-No00310																X					X									
219 0.9-1.0	Oct 31, 2013		Soil	S13-No00737						X																								
219 1.4-1.5	Oct 31, 2013		Soil	S13-No00738						X																								
220 1.4-1.5	Oct 31, 2013		Soil	S13-No00739						X																								

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aboratory where analysis is conducted																																	
elbourne Laboratory - NATA Site # 1254 & 14271														X																			X	
ydney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
risbane Laboratory - NATA Site # 20794																																	
xternal Laboratory								X	X							X																	
20 2.6-2.7	Oct 31, 2013		Soil	S13-No00740						X																							
21 0.9-1.0	Oct 31, 2013		Soil	S13-No00741						X																							
19 0.1-0.2	Oct 31, 2013		Soil	S13-No00742						X																							
16	Oct 31, 2013		Soil	S13-No00743						X																							

Eurofins | mgt Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

UNITS

mg/kg: milligrams per Kilogram

ug/l: micrograms per litre

ppb: Parts per billion

org/100ml: Organisms per 100 millilitres

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

mg/l: milligrams per litre

ppm: Parts per million

%: Percentage

NTU: Units

TERMS

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

QC - ACCEPTANCE CRITERIA

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

Results <10 times the LOR : No Limit

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

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

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

QC DATA GENERAL COMMENTS

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

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH C6-C10 less BTEX (F1)	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
d-BHC	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.2			0.2	Pass	
Toxaphene	mg/kg	< 1			1	Pass	
Method Blank							
Polychlorinated Biphenyls (PCB)							
Aroclor-1016	mg/kg	< 0.5			0.5	Pass	
Aroclor-1232	mg/kg	< 0.5			0.5	Pass	
Aroclor-1242	mg/kg	< 0.5			0.5	Pass	
Aroclor-1248	mg/kg	< 0.5			0.5	Pass	
Aroclor-1254	mg/kg	< 0.5			0.5	Pass	
Aroclor-1260	mg/kg	< 0.5			0.5	Pass	
Total PCB	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Petroleum Hydrocarbons Silica Cleanup (TPH)							
TRH C10-C14 after Silica Cleanup (TPH)	mg/kg	< 50			50	Pass	
TRH C15-C28 after Silica Cleanup (TPH)	mg/kg	< 100			100	Pass	
TRH C29-C36 after Silica Cleanup (TPH)	mg/kg	< 100			100	Pass	
Method Blank							
TRH after Silica Cleanup (NEPM) *							
TRH >C10-C16 after Silica Cleanup	mg/kg	< 50			50	Pass	
TRH >C16-C34 after Silica Cleanup	mg/kg	< 100			100	Pass	
TRH >C34-C40 after Silica Cleanup	mg/kg	< 100			100	Pass	
Method Blank							
Chloride	mg/kg	< 10			10	Pass	
Nitrate (as N)	mg/kg	< 0.1			0.1	Pass	
Nitrite (as N)	mg/kg	< 0.1			0.1	Pass	
Sulphate (as S)	mg/kg	< 10			10	Pass	
Phosphorus	mg/kg	< 10			10	Pass	
Sulphur	mg/kg	< 100			100	Pass	
Method Blank							
Total Nitrogen Set (as N)							
Nitrate & Nitrite (as N)	mg/kg	< 0.1			0.1	Pass	
Total Kjeldahl Nitrogen (as N)	mg/kg	< 10			10	Pass	
Method Blank							
Cation Exchange Capacity							
Cation Exchange Capacity	meq/100g	< 0.05			0.05	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Iron	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.05			0.05	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C6-C9	%	92			70-130	Pass	
TRH C10-C14	%	80			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	95			70-130	Pass	
Toluene	%	85			70-130	Pass	
Ethylbenzene	%	81			70-130	Pass	
m&p-Xylenes	%	79			70-130	Pass	
o-Xylene	%	82			70-130	Pass	
Xylenes - Total	%	80			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	81			70-130	Pass	
TRH C6-C10	%	94			70-130	Pass	
TRH >C10-C16	%	91			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	94			70-130	Pass	
Acenaphthylene	%	92			70-130	Pass	
Anthracene	%	100			70-130	Pass	
Benz(a)anthracene	%	97			70-130	Pass	
Benzo(a)pyrene	%	100			70-130	Pass	
Benzo(b&j)fluoranthene	%	92			70-130	Pass	
Benzo(g.h.i)perylene	%	97			70-130	Pass	
Benzo(k)fluoranthene	%	112			70-130	Pass	
Chrysene	%	101			70-130	Pass	
Dibenz(a.h)anthracene	%	95			70-130	Pass	
Fluoranthene	%	99			70-130	Pass	
Fluorene	%	93			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	96			70-130	Pass	
Naphthalene	%	96			70-130	Pass	
Phenanthrene	%	96			70-130	Pass	
Pyrene	%	101			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	102			70-130	Pass	
4.4'-DDD	%	111			70-130	Pass	
4.4'-DDE	%	105			70-130	Pass	
4.4'-DDT	%	106			70-130	Pass	
a-BHC	%	108			70-130	Pass	
Aldrin	%	109			70-130	Pass	
b-BHC	%	85			70-130	Pass	
d-BHC	%	92			70-130	Pass	
Dieldrin	%	104			70-130	Pass	
Endosulfan I	%	108			70-130	Pass	
Endosulfan II	%	95			70-130	Pass	
Endosulfan sulphate	%	72			70-130	Pass	
Endrin	%	111			70-130	Pass	
Endrin aldehyde	%	74			70-130	Pass	
Endrin ketone	%	88			70-130	Pass	
g-BHC (Lindane)	%	102			70-130	Pass	
Heptachlor	%	105			70-130	Pass	
Heptachlor epoxide	%	104			70-130	Pass	
Hexachlorobenzene	%	102			70-130	Pass	
Methoxychlor	%	98			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
Polychlorinated Biphenyls (PCB)							
Aroclor-1260	%	96			70-130	Pass	
LCS - % Recovery							
Petroleum Hydrocarbons Silica Cleanup (TPH)							
TRH C10-C14 after Silica Cleanup (TPH)	%	86			70-130	Pass	
LCS - % Recovery							
TRH after Silica Cleanup (NEPM) *							
TRH >C10-C16 after Silica Cleanup	%	99			70-130	Pass	
LCS - % Recovery							
Chloride	%	111			70-130	Pass	
Nitrate (as N)	%	119			70-130	Pass	
Nitrite (as N)	%	102			70-130	Pass	
Sulphate (as S)	%	93			70-130	Pass	
Phosphorus	%	75			70-130	Pass	
Sulphur	%	86			70-130	Pass	
LCS - % Recovery							
Total Nitrogen Set (as N)							
Nitrate & Nitrite (as N)	%	111			70-130	Pass	
Total Kjeldahl Nitrogen (as N)	%	103			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	76			70-130	Pass	
Cadmium	%	76			70-130	Pass	
Chromium	%	82			70-130	Pass	
Copper	%	93			70-130	Pass	
Iron	%	90			70-130	Pass	
Lead	%	79			70-130	Pass	
Mercury	%	77			70-130	Pass	
Nickel	%	84			70-130	Pass	
Zinc	%	90			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S13-No00207	CP	%	74			70-130	Pass	
Cadmium	S13-No00207	CP	%	94			70-130	Pass	
Chromium	S13-No00207	CP	%	83			70-130	Pass	
Copper	S13-No00207	CP	%	86			70-130	Pass	
Lead	S13-No00207	CP	%	108			70-130	Pass	
Nickel	S13-No00207	CP	%	88			70-130	Pass	
Zinc	S13-No00207	CP	%	99			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S13-No00214	CP	%	96			70-130	Pass	
TRH C10-C14	S13-No00214	CP	%	80			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S13-No00214	CP	%	99			70-130	Pass	
Toluene	S13-No00214	CP	%	90			70-130	Pass	
Ethylbenzene	S13-No00214	CP	%	83			70-130	Pass	
m&p-Xylenes	S13-No00214	CP	%	83			70-130	Pass	
o-Xylene	S13-No00214	CP	%	87			70-130	Pass	
Xylenes - Total	S13-No00214	CP	%	84			70-130	Pass	
Spike - % Recovery									

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S13-No00214	CP	%	72			70-130	Pass	
TRH C6-C10	S13-No00214	CP	%	97			70-130	Pass	
TRH >C10-C16	S13-No00214	CP	%	90			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S13-No00214	CP	%	98			70-130	Pass	
Acenaphthylene	S13-No00214	CP	%	97			70-130	Pass	
Anthracene	S13-No00214	CP	%	105			70-130	Pass	
Benz(a)anthracene	S13-No00214	CP	%	104			70-130	Pass	
Benzo(a)pyrene	S13-No00214	CP	%	95			70-130	Pass	
Benzo(b&j)fluoranthene	S13-No00214	CP	%	91			70-130	Pass	
Benzo(g.h.i)perylene	S13-No00214	CP	%	102			70-130	Pass	
Benzo(k)fluoranthene	S13-No00214	CP	%	117			70-130	Pass	
Chrysene	S13-No00214	CP	%	102			70-130	Pass	
Dibenz(a.h)anthracene	S13-No00214	CP	%	101			70-130	Pass	
Fluoranthene	S13-No00214	CP	%	106			70-130	Pass	
Fluorene	S13-No00214	CP	%	97			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S13-No00214	CP	%	101			70-130	Pass	
Naphthalene	S13-No00214	CP	%	100			70-130	Pass	
Phenanthrene	S13-No00214	CP	%	104			70-130	Pass	
Pyrene	S13-No00214	CP	%	107			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S13-No00214	CP	%	118			70-130	Pass	
4.4'-DDD	S13-No00214	CP	%	126			70-130	Pass	
4.4'-DDE	S13-No00214	CP	%	121			70-130	Pass	
4.4'-DDT	S13-No00214	CP	%	113			70-130	Pass	
a-BHC	S13-No00214	CP	%	122			70-130	Pass	
Aldrin	S13-No00214	CP	%	122			70-130	Pass	
b-BHC	S13-No00214	CP	%	87			70-130	Pass	
d-BHC	S13-No00214	CP	%	94			70-130	Pass	
Dieldrin	S13-No00214	CP	%	119			70-130	Pass	
Endosulfan I	S13-No00214	CP	%	125			70-130	Pass	
Endosulfan II	S13-No00214	CP	%	103			70-130	Pass	
Endosulfan sulphate	S13-No00214	CP	%	72			70-130	Pass	
Endrin	S13-No00214	CP	%	125			70-130	Pass	
Endrin aldehyde	S13-No00214	CP	%	72			70-130	Pass	
Endrin ketone	S13-No00214	CP	%	87			70-130	Pass	
g-BHC (Lindane)	S13-No00214	CP	%	112			70-130	Pass	
Heptachlor	S13-No00214	CP	%	122			70-130	Pass	
Heptachlor epoxide	S13-No00214	CP	%	119			70-130	Pass	
Hexachlorobenzene	S13-No00214	CP	%	120			70-130	Pass	
Methoxychlor	S13-No00214	CP	%	90			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls (PCB)				Result 1					
Aroclor-1260	S13-No00214	CP	%	91			70-130	Pass	
Spike - % Recovery									
Petroleum Hydrocarbons Silica Cleanup (TPH)				Result 1					
TRH C10-C14 after Silica Cleanup (TPH)	S13-No00214	CP	%	79			70-130	Pass	
Spike - % Recovery									
TRH after Silica Cleanup (NEPM) *				Result 1					
TRH >C10-C16 after Silica Cleanup	S13-No00214	CP	%	89			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S13-No00236	CP	%	79			70-130	Pass	
Cadmium	S13-No00236	CP	%	81			70-130	Pass	
Chromium	S13-No00236	CP	%	76			70-130	Pass	
Copper	S13-No00236	CP	%	90			70-130	Pass	
Lead	S13-No00236	CP	%	77			70-130	Pass	
Mercury	S13-No00236	CP	%	77			70-130	Pass	
Nickel	S13-No00236	CP	%	84			70-130	Pass	
Zinc	S13-No00236	CP	%	80			70-130	Pass	
Spike - % Recovery									
				Result 1					
Chloride	S13-No01952	NCP	%	102			70-130	Pass	
Sulphate (as S)	S13-No01952	NCP	%	103			70-130	Pass	
Sulphur	S13-No00240	CP	%	93			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S13-No00240	CP	%	85			70-130	Pass	
Cadmium	S13-No00240	CP	%	85			70-130	Pass	
Chromium	S13-No00240	CP	%	75			70-130	Pass	
Copper	S13-No00240	CP	%	80			70-130	Pass	
Lead	S13-No00240	CP	%	84			70-130	Pass	
Mercury	S13-No00240	CP	%	77			70-130	Pass	
Zinc	S13-No00240	CP	%	72			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S13-No00258	CP	%	99			70-130	Pass	
Acenaphthylene	S13-No00258	CP	%	97			70-130	Pass	
Anthracene	S13-No00258	CP	%	102			70-130	Pass	
Benz(a)anthracene	S13-No00258	CP	%	103			70-130	Pass	
Benzo(a)pyrene	S13-No00258	CP	%	107			70-130	Pass	
Benzo(b&j)fluoranthene	S13-No00258	CP	%	99			70-130	Pass	
Benzo(g.h.i)perylene	S13-No00258	CP	%	100			70-130	Pass	
Benzo(k)fluoranthene	S13-No00258	CP	%	118			70-130	Pass	
Chrysene	S13-No00258	CP	%	106			70-130	Pass	
Dibenz(a.h)anthracene	S13-No00258	CP	%	100			70-130	Pass	
Fluoranthene	S13-No00258	CP	%	104			70-130	Pass	
Fluorene	S13-No00258	CP	%	98			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S13-No00258	CP	%	100			70-130	Pass	
Naphthalene	S13-No00258	CP	%	99			70-130	Pass	
Phenanthrene	S13-No00258	CP	%	103			70-130	Pass	
Pyrene	S13-No00258	CP	%	104			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S13-No00261	CP	%	77			70-130	Pass	
Cadmium	S13-No00261	CP	%	91			70-130	Pass	
Chromium	S13-No00261	CP	%	87			70-130	Pass	
Copper	S13-No00261	CP	%	120			70-130	Pass	
Lead	S13-No00261	CP	%	88			70-130	Pass	
Nickel	S13-No00261	CP	%	91			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S13-No00267	CP	%	87			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzene	S13-No00267	CP	%	103			70-130	Pass	
Toluene	S13-No00267	CP	%	92			70-130	Pass	
Ethylbenzene	S13-No00267	CP	%	87			70-130	Pass	
m&p-Xylenes	S13-No00267	CP	%	85			70-130	Pass	
o-Xylene	S13-No00267	CP	%	91			70-130	Pass	
Xylenes - Total	S13-No00267	CP	%	87			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S13-No00267	CP	%	88			70-130	Pass	
TRH C6-C10	S13-No00267	CP	%	98			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S13-No00207	CP	mg/kg	12	12	1.0	30%	Pass	
Cadmium	S13-No00207	CP	mg/kg	1.8	1.9	7.0	30%	Pass	
Chromium	S13-No00207	CP	mg/kg	46	49	7.0	30%	Pass	
Copper	S13-No00207	CP	mg/kg	110	110	8.0	30%	Pass	
Lead	S13-No00207	CP	mg/kg	96	110	10	30%	Pass	
Nickel	S13-No00207	CP	mg/kg	11	12	5.0	30%	Pass	
Zinc	S13-No00207	CP	mg/kg	240	270	10	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S13-No00214	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S13-No00214	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S13-No00214	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S13-No00214	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S13-No00214	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S13-No00214	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S13-No00214	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S13-No00214	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S13-No00214	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	S13-No00214	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S13-No00214	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S13-No00214	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10 less BTEX (F1)	S13-No00214	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S13-No00214	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S13-No00214	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S13-No00214	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S13-No00214	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S13-No00214	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S13-No00214	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S13-No00214	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S13-No00214	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S13-No00214	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S13-No00214	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S13-No00214	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S13-No00214	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S13-No00214	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Fluoranthene	S13-No00214	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S13-No00214	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S13-No00214	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S13-No00214	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S13-No00214	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S13-No00214	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S13-No00214	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S13-No00214	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S13-No00214	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S13-No00214	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	S13-No00214	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S13-No00214	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	S13-No00214	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	S13-No00214	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S13-No00214	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S13-No00214	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S13-No00214	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S13-No00214	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S13-No00214	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S13-No00214	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S13-No00214	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	S13-No00214	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S13-No00214	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S13-No00214	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S13-No00214	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S13-No00214	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Toxaphene	S13-No00214	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls (PCB)				Result 1	Result 2	RPD			
Aroclor-1016	S13-No00214	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1232	S13-No00214	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1242	S13-No00214	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1248	S13-No00214	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1254	S13-No00214	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1260	S13-No00214	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Petroleum Hydrocarbons Silica Cleanup (TPH)				Result 1	Result 2	RPD			
TRH C10-C14 after Silica Cleanup (TPH)	S13-No00214	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C15-C28 after Silica Cleanup (TPH)	S13-No00214	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH C29-C36 after Silica Cleanup (TPH)	S13-No00214	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
TRH after Silica Cleanup (NEPM) *				Result 1	Result 2	RPD			
TRH >C10-C16 after Silica Cleanup	S13-No00214	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34 after Silica Cleanup	S13-No00214	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40 after Silica Cleanup	S13-No00214	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S13-No00236	CP	mg/kg	4.6	5.1	12	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Cadmium	S13-No00236	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S13-No00236	CP	mg/kg	9.4	11	13	30%	Pass	
Copper	S13-No00236	CP	mg/kg	10.0	11	8.0	30%	Pass	
Lead	S13-No00236	CP	mg/kg	8.7	11	25	30%	Pass	
Mercury	S13-No00236	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Nickel	S13-No00236	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S13-No00236	CP	mg/kg	8.9	9.8	9.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Chloride	S13-No01952	NCP	mg/kg	< 10	< 10	<1	30%	Pass	
Nitrate (as N)	S13-No00240	CP	mg/kg	0.3	0.3	<1	30%	Pass	
Nitrite (as N)	S13-No00240	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Sulphate (as S)	S13-No01952	NCP	mg/kg	17	17	1.0	30%	Pass	
Phosphorus	S13-No00240	CP	mg/kg	2700	3300	19	30%	Pass	
Duplicate									
Total Nitrogen Set (as N)				Result 1	Result 2	RPD			
Nitrate & Nitrite (as N)	S13-No00240	CP	mg/kg	0.3	0.3	<1	30%	Pass	
Total Kjeldahl Nitrogen (as N)	S13-No00240	CP	mg/kg	310	310	2.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S13-No00240	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Cadmium	S13-No00240	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S13-No00240	CP	mg/kg	12	9.9	19	30%	Pass	
Copper	S13-No00240	CP	mg/kg	32	30	7.0	30%	Pass	
Lead	S13-No00240	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Mercury	S13-No00240	CP	mg/kg	0.07	0.15	70	30%	Fail	Q15
Nickel	S13-No00240	CP	mg/kg	39	31	24	30%	Pass	
Zinc	S13-No00240	CP	mg/kg	19	21	6.0	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S13-No00258	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S13-No00258	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S13-No00258	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S13-No00258	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S13-No00258	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S13-No00258	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S13-No00258	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S13-No00258	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S13-No00258	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S13-No00258	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S13-No00258	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S13-No00258	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S13-No00258	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S13-No00258	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S13-No00258	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S13-No00258	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S13-No00261	CP	mg/kg	7.4	8.0	7.0	30%	Pass	
Cadmium	S13-No00261	CP	mg/kg	0.8	0.8	6.0	30%	Pass	
Chromium	S13-No00261	CP	mg/kg	23	24	4.0	30%	Pass	
Copper	S13-No00261	CP	mg/kg	39	43	9.0	30%	Pass	
Lead	S13-No00261	CP	mg/kg	51	52	2.0	30%	Pass	
Nickel	S13-No00261	CP	mg/kg	9.7	11	9.0	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Zinc	S13-No00261	CP	mg/kg	190	220	16	30%	Pass	
Duplicate									
Cation Exchange Capacity				Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract at 25°C)	M13-No00666	NCP	uS/cm	100	81	25	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S13-No00267	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S13-No00267	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S13-No00267	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S13-No00267	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S13-No00267	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S13-No00267	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	S13-No00267	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S13-No00267	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S13-No00267	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10 less BTEX (F1)	S13-No00267	CP	mg/kg	< 20	< 20	<1	30%	Pass	

Comments

E.Coli/Salmonella/Coliforms analysed by ALS, NATA:1247(site 2040), Job reference:FS1333590

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	Yes

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q15	The RPD reported passes Eurofins | mgt's Acceptance Criteria as stipulated in SOP 05. Refer to Glossary Page of this report for further details

Authorised By

Jean Heng	Client Services
Bob Symons	Senior Analyst-Inorganic (NSW)
Emily Rosenberg	Senior Analyst-Metal (VIC)
Huong Le	Senior Analyst-Inorganic (VIC)
James Norford	Senior Analyst-Metal (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)
Ryan Hamilton	Senior Analyst-Volatile (NSW)

Dr. Bob Symons

Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

eurofins | mgt

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

Attention: **Michelle Delandro**

Report **398243-W**
Client Reference URBAN GROWTH 43008
Received Date Nov 01, 2013

Client Sample ID			**RINSATE**
Sample Matrix			**Water**
Eurofins | mgt Sample No.			**S13-No00264**
Date Sampled			**Oct 31, 2013**
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons - 1999 NEPM Fractions			
TRH C6-C9	0.02	mg/L	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1
TRH C10-36 (Total)	0.1	mg/L	< 0.1
BTEX			
Benzene	0.001	mg/L	< 0.001
Toluene	0.001	mg/L	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002
o-Xylene	0.001	mg/L	< 0.001
Xylenes - Total	0.003	mg/L	< 0.003
4-Bromofluorobenzene (surr.)	1	%	74
Total Recoverable Hydrocarbons - 2013 NEPM Fractions			
Naphthalene[N02]	0.02	mg/L	< 0.02
TRH C6-C10	0.02	mg/L	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1
Polycyclic Aromatic Hydrocarbons			
Acenaphthene	0.001	mg/L	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001
Anthracene	0.001	mg/L	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001
Chrysene	0.001	mg/L	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001
Fluoranthene	0.001	mg/L	< 0.001
Fluorene	0.001	mg/L	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001
Naphthalene	0.001	mg/L	< 0.001

Client Sample ID			RINSATE
Sample Matrix			Water
Eurofins | mgt Sample No.			S13-No00264
Date Sampled			Oct 31, 2013
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
Phenanthrene	0.001	mg/L	< 0.001
Pyrene	0.001	mg/L	< 0.001
Total PAH	0.001	mg/L	< 0.001
2-Fluorobiphenyl (surr.)	1	%	104
p-Terphenyl-d14 (surr.)	1	%	127
Organochlorine Pesticides			
Chlordanes - Total	0.001	mg/L	< 0.001
4.4'-DDD	0.0001	mg/L	< 0.0001
4.4'-DDE	0.0001	mg/L	< 0.0001
4.4'-DDT	0.0001	mg/L	< 0.0001
a-BHC	0.0001	mg/L	< 0.0001
Aldrin	0.0001	mg/L	< 0.0001
b-BHC	0.0001	mg/L	< 0.0001
d-BHC	0.0001	mg/L	< 0.0001
Dieldrin	0.0001	mg/L	< 0.0001
Endosulfan I	0.0001	mg/L	< 0.0001
Endosulfan II	0.0001	mg/L	< 0.0001
Endosulfan sulphate	0.0001	mg/L	< 0.0001
Endrin	0.0001	mg/L	< 0.0001
Endrin aldehyde	0.0001	mg/L	< 0.0001
Endrin ketone	0.0001	mg/L	< 0.0001
g-BHC (Lindane)	0.0001	mg/L	< 0.0001
Heptachlor	0.0001	mg/L	< 0.0001
Heptachlor epoxide	0.0001	mg/L	< 0.0001
Hexachlorobenzene	0.0001	mg/L	< 0.0001
Methoxychlor	0.0001	mg/L	< 0.0001
Toxaphene	0.01	mg/L	< 0.01
Dibutylchlorendate (surr.)	1	%	111
Tetrachloro-m-xylene (surr.)	1	%	103
Polychlorinated Biphenyls (PCB)			
Aroclor-1016	0.005	mg/L	< 0.005
Aroclor-1232	0.005	mg/L	< 0.005
Aroclor-1242	0.005	mg/L	< 0.005
Aroclor-1248	0.005	mg/L	< 0.005
Aroclor-1254	0.005	mg/L	< 0.005
Aroclor-1260	0.005	mg/L	< 0.005
Total PCB	0.005	mg/L	< 0.005
Dibutylchlorendate (surr.)	1	%	111
Heavy Metals			
Arsenic (filtered)	0.001	mg/L	< 0.001
Cadmium (filtered)	0.0001	mg/L	< 0.0001
Chromium (filtered)	0.001	mg/L	< 0.001
Copper (filtered)	0.001	mg/L	< 0.001
Lead (filtered)	0.001	mg/L	< 0.001
Mercury (filtered)	0.0001	mg/L	< 0.0001
Nickel (filtered)	0.001	mg/L	< 0.001
Zinc (filtered)	0.005	mg/L	< 0.005

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Nov 01, 2013	7 Day
- Method: E004 Petroleum Hydrocarbons (TPH)			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Nov 01, 2013	7 Day
- Method: LM-LTM-ORG2010			
BTEX	Sydney	Nov 01, 2013	14 Day
- Method: E029/E016 BTEX			
Polycyclic Aromatic Hydrocarbons	Sydney	Nov 01, 2013	7 Day
- Method: E007 Polyaromatic Hydrocarbons (PAH)			
Organochlorine Pesticides	Sydney	Nov 01, 2013	7 Day
- Method: E013 Organochlorine Pesticides (OC)			
Polychlorinated Biphenyls (PCB)	Sydney	Nov 01, 2013	7 Day
- Method: E013 Polychlorinated Biphenyls (PCB)			
Metals M8 filtered	Sydney	Nov 04, 2013	28 Day
- Method: E020/E030 Filtered Metals in Water & E026 Mercury			

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 9:52 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	398243	**Due:**	Nov 8, 2013
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Michelle Delandro
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail	% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Total Phosphorous	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
boratory where analysis is conducted																													
lbourne Laboratory - NATA Site # 1254 & 14271										X																		X	
dney Laboratory - NATA Site # 18217	X	X	X			X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
isbane Laboratory - NATA Site # 20794																													
ternal Laboratory				X	X							X																	
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																										
16 0.1-0.2	Oct 31, 2013		Soil	S13-No00207	X																X									
16 0.9-1.0	Oct 31, 2013		Soil	S13-No00208	X																X									
16 1.4-1.5	Oct 31, 2013		Soil	S13-No00209						X																				
16 2.7-2.8	Oct 31, 2013		Soil	S13-No00210				X	X						X															
15 0.1-0.2	Oct 31, 2013		Soil	S13-No00211	X																X									
15 0.4-0.5	Oct 31, 2013		Soil	S13-No00212	X																X									
15 1.4-1.5	Oct 31, 2013		Soil	S13-No00213						X																				
14 0.1-0.2	Oct 31, 2013		Soil	S13-No00214	X														X	X	X		X	X	X			X		X
14 0.4-0.5	Oct 31, 2013		Soil	S13-No00215						X																				
14 0.9-1.0	Oct 31, 2013		Soil	S13-No00216						X																				

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 9:52 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:** **Phone:** **Fax:**	398243 02 8245 0300	**Due:** **Priority:** **Contact Name:**	Nov 8, 2013 5 Day Michelle Delandro
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Total Phosphorous	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
boratory where analysis is conducted																																
elbourne Laboratory - NATA Site # 1254 & 14271														X																		X	
rdney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
risbane Laboratory - NATA Site # 20794																																	
xternal Laboratory								X	X							X																	
214 1.4-1.5	Oct 31, 2013		Soil	S13-No00217	X																			X									
214 2.5-2.7	Oct 31, 2013		Soil	S13-No00218						X																							
213 0.1-0.2	Oct 31, 2013		Soil	S13-No00219						X																							
213 0.5-0.6	Oct 31, 2013		Soil	S13-No00220						X																							
213 1.0-1.1	Oct 31, 2013		Soil	S13-No00221						X																							
213 2.1-2.2	Oct 31, 2013		Soil	S13-No00222						X																							
212 0.1-0.2	Oct 31, 2013		Soil	S13-No00223	X																	X	X	X		X	X	X			X		X
212 0.7-0.8	Oct 31, 2013		Soil	S13-No00224	X																			X									
212 1.1-1.2	Oct 31, 2013		Soil	S13-No00225						X																							
3003	Oct 31, 2013		Soil	S13-No00226						X																							
226 0.1-0.2	Oct 31, 2013		Soil	S13-No00228						X																							

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 9:52 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:** **Phone:** **Fax:**	398243 02 8245 0300	**Due:** **Priority:** **Contact Name:**	Nov 8, 2013 5 Day Michelle Delandro
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Total Phosphorous	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
boratory where analysis is conducted																																
elbourne Laboratory - NATA Site # 1254 & 14271														X																		X	
dney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
isbane Laboratory - NATA Site # 20794																																	
ternal Laboratory								X	X							X																	
26 0.5-0.6	Oct 31, 2013		Soil	S13-No00229	X																			X									
26 0.9-1.0	Oct 31, 2013		Soil	S13-No00230				X	X							X																	
26 2.6-2.7	Oct 31, 2013		Soil	S13-No00231						X																							
25 0.1-0.2	Oct 31, 2013		Soil	S13-No00232						X																							
25 0.4-0.5	Oct 31, 2013		Soil	S13-No00233	X																	X	X	X		X	X				X		
25 1.1-1.2	Oct 31, 2013		Soil	S13-No00234						X																							
25 3.3-3.4	Oct 31, 2013		Soil	S13-No00235						X																							
22 0.1-0.2	Oct 31, 2013		Soil	S13-No00236	X																	X	X	X		X	X				X		
22 0.9-1.0	Oct 31, 2013		Soil	S13-No00237	X																			X									
22 1.7-1.8	Oct 31, 2013		Soil	S13-No00238						X																							
22 2.7-2.8	Oct 31, 2013		Soil	S13-No00239						X																							

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 9:52 AM
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Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Total Phosphorous	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
boratory where analysis is conducted																																
lbourne Laboratory - NATA Site # 1254 & 14271														X																		X	
dney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
isbane Laboratory - NATA Site # 20794																																	
ternal Laboratory								X	X							X																	
18 1.0-1.1	Oct 31, 2013		Soil	S13-No00240	X		X	X	X			X	X			X	X	X	X	X				X		X		X	X	X	X		X
18 1.8-1.9	Oct 31, 2013		Soil	S13-No00241	X		X	X	X			X	X			X	X	X	X	X				X		X		X	X	X	X		X
22 0.4-0.5	Oct 31, 2013		Soil	S13-No00242						X																							
20 0.1-0.2	Oct 31, 2013		Soil	S13-No00243						X																							
20 0.4-0.5	Oct 31, 2013		Soil	S13-No00244	X																	X	X	X		X	X	X			X		X
20 2.4-2.5	Oct 31, 2013		Soil	S13-No00245						X																							
20 3.4-3.5	Oct 31, 2013		Soil	S13-No00246						X																							
21 0.1-0.2	Oct 31, 2013		Soil	S13-No00247	X																	X	X	X		X	X				X		
21 0.4-0.5	Oct 31, 2013		Soil	S13-No00248	X																			X									
21 1.4-1.5	Oct 31, 2013		Soil	S13-No00249						X																							
21 2.9-3.0	Oct 31, 2013		Soil	S13-No00250						X																							

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 9:52 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	398243	**Due:**	Nov 8, 2013
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Michelle Delandro
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Total Phosphorous	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
boratory where analysis is conducted																																
lbourne Laboratory - NATA Site # 1254 & 14271														X																		X	
dney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
isbane Laboratory - NATA Site # 20794																																	
ternal Laboratory								X	X							X																	
21 3.4-3.5	Oct 31, 2013		Soil	S13-No00251						X																							
19 0.1-0.2	Oct 31, 2013		Soil	S13-No00252	X																	X		X									
19 0.4-0.5	Oct 31, 2013		Soil	S13-No00253	X																	X		X		X		X		X	X		X
19 1.0-1.5	Oct 31, 2013		Soil	S13-No00254		X																											
19 3.9-4.0	Oct 31, 2013		Soil	S13-No00255						X																							
17 0.9-1.0	Oct 31, 2013		Soil	S13-No00256		X																											
17 1.8-1.9	Oct 31, 2013		Soil	S13-No00257		X																											
31 0.1-0.2	Oct 31, 2013		Soil	S13-No00258	X																	X		X									
31 0.9-1.0	Oct 31, 2013		Soil	S13-No00259						X																							
31 1.4-1.5	Oct 31, 2013		Soil	S13-No00260						X																							
30 0.1-0.2	Oct 31, 2013		Soil	S13-No00261	X																			X									

Company Name:	JBS & G (NSW & WA) Pty Ltd					**Order No.:**																									**Received:**	Nov 1, 2013 9:52 AM	
Address:	Level 1, 50 Margaret St					**Report #:**	398243																								**Due:**	Nov 8, 2013	
	Sydney					**Phone:**	02 8245 0300																								**Priority:**	5 Day	
	NSW 2000					**Fax:**																									**Contact Name:**	Michelle Delandro	
Client Job No.:	URBAN GROWTH 43008																																
																															Eurofins | mgt Client Manager: Jean Heng		

Sample Detail					% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Total Phosphorous	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
laboratory where analysis is conducted																																	
elbourne Laboratory - NATA Site # 1254 & 14271														X																		X	
ydney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
risbane Laboratory - NATA Site # 20794																																	
xternal Laboratory								X	X							X																	
230 0.9-1.0	Oct 31, 2013		Soil	S13-No00262						X																								
230 1.5-1.6	Oct 31, 2013		Soil	S13-No00263						X																								
NSATE	Oct 31, 2013		Water	S13-No00264																	X	X		X	X	X				X			
S	Oct 31, 2013		Soil	S13-No00265																X					X									
219 1.9-2.0	Oct 31, 2013		Soil	S13-No00266	X			X	X		X			X	X	X																X	
217 0.9-1.0	Oct 31, 2013		Soil	S13-No00267	X		X	X	X			X	X			X	X	X	X	X				X		X		X	X	X	X		X
217 1.8-1.9	Oct 31, 2013		Soil	S13-No00268	X		X	X	X			X	X			X	X	X	X	X				X		X		X	X	X	X		X
3	Oct 31, 2013		Soil	S13-No00310																X					X									
219 0.9-1.0	Oct 31, 2013		Soil	S13-No00737						X																								
219 1.4-1.5	Oct 31, 2013		Soil	S13-No00738						X																								
220 1.4-1.5	Oct 31, 2013		Soil	S13-No00739						X																								

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Sample Detail					% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	Total Phosphorous	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
aboratory where analysis is conducted																																	
elbourne Laboratory - NATA Site # 1254 & 14271														X																			X	
ydney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
risbane Laboratory - NATA Site # 20794																																	
xternal Laboratory								X	X							X																	
20 2.6-2.7	Oct 31, 2013		Soil	S13-No00740						X																							
21 0.9-1.0	Oct 31, 2013		Soil	S13-No00741						X																							
19 0.1-0.2	Oct 31, 2013		Soil	S13-No00742						X																							
16	Oct 31, 2013		Soil	S13-No00743						X																							

Eurofins | mgt Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

UNITS

mg/kg: milligrams per Kilogram

ug/l: micrograms per litre

ppb: Parts per billion

org/100ml: Organisms per 100 millilitres

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

mg/l: milligrams per litre

ppm: Parts per million

%: Percentage

NTU: Units

TERMS

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

QC - ACCEPTANCE CRITERIA

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

Results <10 times the LOR : No Limit

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

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

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

QC DATA GENERAL COMMENTS

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

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total	mg/L	< 0.003			0.003	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.02			0.02	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH C6-C10 less BTEX (F1)	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/L	< 0.001			0.001	Pass	
4.4'-DDD	mg/L	< 0.0001			0.0001	Pass	
4.4'-DDE	mg/L	< 0.0001			0.0001	Pass	
4.4'-DDT	mg/L	< 0.0001			0.0001	Pass	
a-BHC	mg/L	< 0.0001			0.0001	Pass	
Aldrin	mg/L	< 0.0001			0.0001	Pass	
b-BHC	mg/L	< 0.0001			0.0001	Pass	
d-BHC	mg/L	< 0.0001			0.0001	Pass	
Dieldrin	mg/L	< 0.0001			0.0001	Pass	
Endosulfan I	mg/L	< 0.0001			0.0001	Pass	
Endosulfan II	mg/L	< 0.0001			0.0001	Pass	
Endosulfan sulphate	mg/L	< 0.0001			0.0001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin	mg/L	< 0.0001			0.0001	Pass	
Endrin aldehyde	mg/L	< 0.0001			0.0001	Pass	
Endrin ketone	mg/L	< 0.0001			0.0001	Pass	
g-BHC (Lindane)	mg/L	< 0.0001			0.0001	Pass	
Heptachlor	mg/L	< 0.0001			0.0001	Pass	
Heptachlor epoxide	mg/L	< 0.0001			0.0001	Pass	
Hexachlorobenzene	mg/L	< 0.0001			0.0001	Pass	
Methoxychlor	mg/L	< 0.0001			0.0001	Pass	
Toxaphene	mg/L	< 0.01			0.01	Pass	
Method Blank							
Polychlorinated Biphenyls (PCB)							
Aroclor-1016	mg/L	< 0.005			0.005	Pass	
Aroclor-1232	mg/L	< 0.005			0.005	Pass	
Aroclor-1242	mg/L	< 0.005			0.005	Pass	
Aroclor-1248	mg/L	< 0.005			0.005	Pass	
Aroclor-1254	mg/L	< 0.005			0.005	Pass	
Aroclor-1260	mg/L	< 0.005			0.005	Pass	
Total PCB	mg/L	< 0.005			0.005	Pass	
Method Blank							
Heavy Metals							
Arsenic (filtered)	mg/L	< 0.001			0.001	Pass	
Cadmium (filtered)	mg/L	< 0.0001			0.0001	Pass	
Chromium (filtered)	mg/L	< 0.001			0.001	Pass	
Copper (filtered)	mg/L	< 0.001			0.001	Pass	
Lead (filtered)	mg/L	< 0.001			0.001	Pass	
Mercury (filtered)	mg/L	< 0.0001			0.0001	Pass	
Nickel (filtered)	mg/L	< 0.001			0.001	Pass	
Zinc (filtered)	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	77			70-130	Pass	
TRH C10-C14	%	86			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	88			70-130	Pass	
Toluene	%	90			70-130	Pass	
Ethylbenzene	%	82			70-130	Pass	
m&p-Xylenes	%	92			70-130	Pass	
o-Xylene	%	85			70-130	Pass	
Xylenes - Total	%	89			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	99			70-130	Pass	
TRH C6-C10	%	84			70-130	Pass	
TRH >C10-C16	%	96			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	102			70-130	Pass	
Acenaphthylene	%	98			70-130	Pass	
Anthracene	%	106			70-130	Pass	
Benz(a)anthracene	%	84			70-130	Pass	
Benzo(a)pyrene	%	91			70-130	Pass	
Benzo(b&j)fluoranthene	%	80			70-130	Pass	
Benzo(g.h.i)perylene	%	88			70-130	Pass	
Benzo(k)fluoranthene	%	99			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Chrysene	%	104			70-130	Pass	
Dibenz(a.h)anthracene	%	80			70-130	Pass	
Fluoranthene	%	106			70-130	Pass	
Fluorene	%	102			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	77			70-130	Pass	
Naphthalene	%	101			70-130	Pass	
Phenanthrene	%	105			70-130	Pass	
Pyrene	%	110			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	100			70-130	Pass	
4.4'-DDD	%	100			70-130	Pass	
4.4'-DDE	%	100			70-130	Pass	
4.4'-DDT	%	100			70-130	Pass	
a-BHC	%	100			70-130	Pass	
Aldrin	%	100			70-130	Pass	
b-BHC	%	100			70-130	Pass	
d-BHC	%	100			70-130	Pass	
Dieldrin	%	110			70-130	Pass	
Endosulfan I	%	100			70-130	Pass	
Endosulfan II	%	110			70-130	Pass	
Endosulfan sulphate	%	110			70-130	Pass	
Endrin	%	110			70-130	Pass	
Endrin aldehyde	%	100			70-130	Pass	
Endrin ketone	%	110			70-130	Pass	
g-BHC (Lindane)	%	100			70-130	Pass	
Heptachlor	%	100			70-130	Pass	
Heptachlor epoxide	%	100			70-130	Pass	
Hexachlorobenzene	%	100			70-130	Pass	
Methoxychlor	%	120			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls (PCB)							
Aroclor-1260	%	115			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic (filtered)	%	105			70-130	Pass	
Cadmium (filtered)	%	106			70-130	Pass	
Chromium (filtered)	%	109			70-130	Pass	
Copper (filtered)	%	101			70-130	Pass	
Lead (filtered)	%	103			70-130	Pass	
Mercury (filtered)	%	98			70-130	Pass	
Nickel (filtered)	%	107			70-130	Pass	
Zinc (filtered)	%	116			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	S13-No00652	NCP	%	114			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	S13-No00652	NCP	%	128			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S13-Oc24820	NCP	%	104			70-130	Pass	
Acenaphthylene	S13-Oc24820	NCP	%	103			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Anthracene	S13-Oc24820	NCP	%	95			70-130	Pass	
Benz(a)anthracene	S13-Oc24820	NCP	%	109			70-130	Pass	
Benzo(a)pyrene	S13-Oc24820	NCP	%	96			70-130	Pass	
Benzo(b&j)fluoranthene	S13-Oc24820	NCP	%	116			70-130	Pass	
Benzo(g.h.i)perylene	S13-Oc24820	NCP	%	94			70-130	Pass	
Benzo(k)fluoranthene	S13-Oc24820	NCP	%	105			70-130	Pass	
Chrysene	S13-Oc24820	NCP	%	103			70-130	Pass	
Dibenz(a.h)anthracene	S13-Oc24820	NCP	%	85			70-130	Pass	
Fluoranthene	S13-Oc24820	NCP	%	114			70-130	Pass	
Fluorene	S13-Oc24820	NCP	%	107			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S13-Oc24820	NCP	%	95			70-130	Pass	
Naphthalene	S13-Oc24820	NCP	%	104			70-130	Pass	
Phenanthrene	S13-Oc24820	NCP	%	110			70-130	Pass	
Pyrene	S13-Oc24820	NCP	%	113			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic (filtered)	S13-No00634	NCP	%	111			70-130	Pass	
Cadmium (filtered)	S13-No00634	NCP	%	105			70-130	Pass	
Chromium (filtered)	S13-No00634	NCP	%	104			70-130	Pass	
Copper (filtered)	S13-No00634	NCP	%	81			70-130	Pass	
Lead (filtered)	S13-No00634	NCP	%	82			70-130	Pass	
Mercury (filtered)	S13-No00634	NCP	%	77			70-130	Pass	
Nickel (filtered)	S13-No00634	NCP	%	94			70-130	Pass	
Zinc (filtered)	S13-No00634	NCP	%	91			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S13-No01172	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C10-C14	S13-No00650	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28	S13-No00650	NCP	mg/L	1.5	1.3	9.0	30%	Pass	
TRH C29-C36	S13-No00650	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S13-No01172	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S13-No01172	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S13-No01172	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S13-No01172	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S13-No01172	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total	S13-No01172	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S13-No01172	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C6-C10	S13-No01172	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C6-C10 less BTEX (F1)	S13-No01172	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH >C10-C16	S13-No00650	NCP	mg/L	0.060	0.050	18	30%	Pass	
TRH >C16-C34	S13-No00650	NCP	mg/L	1.6	1.5	9.0	30%	Pass	
TRH >C34-C40	S13-No00650	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Acenaphthylene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benz(a)anthracene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Benzo(b&j)fluoranthene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(g.h.i)perylene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(k)fluoranthene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a.h)anthracene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Phenanthrene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Pyrene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic (filtered)	S13-No00633	NCP	mg/L	< 0.001	0.0010	5.0	30%	Pass	
Cadmium (filtered)	S13-No00633	NCP	mg/L	0.00090	0.00080	5.0	30%	Pass	
Chromium (filtered)	S13-No00633	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper (filtered)	S13-No00633	NCP	mg/L	0.0090	0.0090	<1	30%	Pass	
Lead (filtered)	S13-No00633	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury (filtered)	S13-No00633	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel (filtered)	S13-No00633	NCP	mg/L	0.015	0.015	2.0	30%	Pass	
Zinc (filtered)	S13-No00633	NCP	mg/L	0.032	0.032	1.0	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	Yes

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised By

Jean Heng	Client Services
James Norford	Senior Analyst-Metal (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)
Ryan Hamilton	Senior Analyst-Volatile (NSW)

Dr. Bob Symons

Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

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1 of 4

#398243

#398304

JBS&G

CHAIN OF CUSTODY

PROJECT NO.: 43008

PROJECT NAME: Urban Growth.

SEND REPORT TO:

SEND INVOICE TO: ap@jbsg.com.au

DATE NEEDED BY: Standard

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

LABORATORY BATCH NO.

SAMPLERS: EL & MD

PHONE: 02 82450300

EMAIL:

QC LEVEL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	TPH/BTEX	TPH aliph/arom	TPH silica gel	Biological	nutrients	PAHs	asbestos	PCBs/OCPs	ASLP	EC	Fe	pH	CEC	organic matter	ammonia	NOTES
TP16 0.1-0.2	S	31/10/13				X																
TP16 0.5-1.0	S	31/10/13				X																
TP16 1.4-1.5	S	31/10/13																				
TP16 2.7-2.5	S	31/10/13								X												
TP15 0.1-0.2	S	31/10/13				X																
TP15 0.4-0.5	S	31/10/13				X																
TP15 1.4-1.5	S	31/10/13																				
TP14 0.1-0.2	S	31/10/13				X	X		X			X	X	X								
TP14 0.4-0.5	S	31/10/13																				
TP14 0.9-1.0	S	31/10/13																				
TP14 1.4-1.5	S	31/10/13				X																
TP14 2.5-2.7	S	31/10/13																				
TP13 0.1-0.2	S	31/10/13																				
TP13 0.5-0.6	S	31/10/13																				
TP13 1.0-1.1	S	31/10/13																				
TP13 2.1-2.2	S	31/10/13																				
TP12 0.1-0.2	S	31/10/13				X	X		X			X	X	X								
TP12 0.7-0.8	S	31/10/13				X																

RELINQUISHED BY:
NAME: DATE:
OF: JBS&G
NAME: DATE:
OF:

METHOD OF SHIPMENT:
CONSIGNMENT NOTE NO.
TRANSPORT CO.
CONSIGNMENT NOTE NO.
TRANSPORT CO

RECEIVED BY:
NAME: DATE:
OF:
NAME: DATE:
OF:

FOR RECEIVING LAB USE ONLY:
COOLER SEAL - Yes..... No ...... Intact .... Broken ....
COOLER TEMP ___ deg C
COOLER SEAL - Yes..... No ...... Intact .... Broken ....
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

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2 of 4 # 398304

harding@jbsg.com.au, cluu@jbsg.com.au, mdelandro@jbsg.com.au

JBS&G

CHAIN OF CUSTODY

PROJECT NO.: 43008		LABORATORY BATCH NO.	
PROJECT NAME: Urban Growth		SAMPLERS	
SEND REPORT TO:	SEND INVOICE TO: gng@jbsg.com.au	PHONE: 02 82450300	EMAIL:
DATE NEEDED BY: Standard		QC LEVEL:	
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:			

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	TPH/BTEX	TPH aliph/arom	TPH Silica gel	Biological	lubricants	PAHs	asbestos	PCB/OCPs	ASLP	EC	Fe	pH	CEC	Organic Matter	ammonia	NOTES
TP12 1.1-1.2	S	31/10/13																				
QS003																						
QS003A																						
TP26 0.1-0.2																						
TP26 0.5-0.6						X																
TP26 0.9-1.0										X												
TP26 2.6-2.7																						
TP25 0.1-0.2																						
TP25 0.4-0.5						X	X					X	X	X								
TP25 1.1-1.2																						
TP25 3.3-3.4																						
TP22 0.1-0.2						X	X					X	X	X								
TP22 0.9-1.0						X																
TP22 1.7-1.8																						
TP22 2.7-2.8																						
TP18 1.6-1.1						X	X	X	X	X	X											
TP18 1.8-1.9						X	X	X	X	X	X											
TP22 0.4-0.5																						

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes...... No .... Intact .... Broken ....
OF: JBS&G	TRANSPORT CO.	OF:	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

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#398304

3 of 4

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JBS&G

CHAIN OF CUSTODY

PROJECT NO.: 43008	LABORATORY BATCH NO.:
PROJECT NAME: Urban Growth	SAMPLERS: EL & MD
SEND REPORT TO:	SEND INVOICE TO: gng@jbsg.com.au
DATE NEEDED BY: Standard	PHONE: 02 82450300 EMAIL:
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:	QC LEVEL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	TPH/BTEX	TPH Chromatogram TPH Silica gel	Pesticides	Nutrients	PAHs	Asbestos	PCBs/OCPs	ASLP	EC	Fe	PH	CEC	Organic Matter	Ammonia	NOTES
TP20 0.1-0.2	S	31/10/13																			
TP20 0.4-0.5						x	x	x			x		x								
TP20 2.4-2.5																					
TP20 3.4-3.5																					
TP21 0.1-0.2						x	x				x		x								
TP21 0.4-0.5						x															
TP21 1.4-1.5																					
TP21 2.9-3.0																					
TP21 3.4-3.5																					
TP19 0.1-0.2						x					x										
TP19 0.4-0.5						x	x	x	x		x	x									
TP19 1.0-1.5																					
TP19 3.9-4.0																					
TP17 0.9-1.0																					
TP17 1.8-1.9																					
TP31 0.1-0.2						x					x										
TP31 0.9-1.0																					
TP31 1.4-1.5	↓	↓																			

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	OF:	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

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CHAIN OF CUSTODY

4 of 4

JBS&G

#398243

398304

PROJECT NO.: 43006		LABORATORY BATCH NO.	
PROJECT NAME: Urban Growth		SAMPLERS: EL * MD.	
SEND REPORT TO:	SEND INVOICE TO: gng@jbsg.com.au	PHONE: 02 82450300	EMAIL:
DATE NEEDED BY: Standard		QC LEVEL:	
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:			

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	TPH/BTEX	TPH aliph/arom	TPH silica gel	Biological	nutrients	PAHs	asbestos	PCBs/OCPs	ASLP	EC	Fe	pH	CEC	organic matter	ammonia	NOTES
TP30_0.1-0.2	S	30/10/13				X																
TP30_0.9-1.0	↓																					
TP30_1.5-1.6	↓	↓																				
Rinsate1	W	31/10/13				X	X					X		X								
Trip S	W	29/10/13					X															
Trip B	W	29/10/13					X															
TP19 1.9-2.0	S	29/10/13								X						X	X	X	X	X		
TP17 0.9-1.0						X	X	X	X	X	X											
TP17-1.8-1.9						X	X	X	X	X	X											

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes....... No .... Intact .... Broken ....
OF: JBS&G	TRANSPORT CO.	OF:	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

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Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Sample Receipt Advice

Company name:	**JBS & G (NSW & WA) Pty Ltd**
Contact name:	Michelle Delandro
Client job number:	EXTERNAL: URBAN GROWTH 43008
COC number:	Not provided
Turn around time:	10 Day
Date/Time received:	Nov 1, 2013 9:52 AM
Eurofins | mgt reference:	**398304**

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 : 14 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.

☑ Organic samples had Teflon liners.

☑ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Notes

Parent report 398243 | Anlaysis performed by Enviromental Pathogens Canberra

Contact notes

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

Jean Heng on Phone : (+61) (2) 9900 8400 or by e.mail: JeanHeng@eurofins.com.au

Results will be delivered electronically via e.mail to Michelle Delandro - MDelandro@jbsg.com.au.

Eurofins | mgt Sample Receipt

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 9:52 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:** **Phone:** **Fax:**	398304 02 8245 0300	**Due:** **Priority:** **Contact Name:**	Nov 15, 2013 10 Day Thomas Harding
Client Job No.:	EXTERNAL: URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					Enteric Viruses Presence/Absence (Adenovirus Enterovirus and Reovirus)	Helminth Ova
boratory where analysis is conducted						
elbourne Laboratory - NATA Site # 1254 & 14271						
dney Laboratory - NATA Site # 18217						
isbane Laboratory - NATA Site # 20794						
ternal Laboratory					X	X
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
16 2.7-2.8	Oct 31, 2013		Soil	S13-No00568	X	X
26 0.9-1.0	Oct 31, 2013		Soil	S13-No00569	X	X
18 1.0-1.1	Oct 31, 2013		Soil	S13-No00570	X	X
18 1.8-1.9	Oct 31, 2013		Soil	S13-No00571	X	X
19 1.9-2.0	Oct 31, 2013		Soil	S13-No00572	X	X
17 0.9-1.0	Oct 31, 2013		Soil	S13-No00573	X	X
17 1.8-1.9	Oct 31, 2013		Soil	S13-No00574	X	X

Environmental *pathogens*

Sefton McGraw
Eurofins Environment Testing Australia P/L
PO Box 276
Oakleigh VIC 3166
ph 03 95647055 fax 03 95647190

Final Report – 08/11/13

Seven biosolid samples were received and analysed for Viruses as requested.

For virus detection ~20g of sample was dissolved in buffer and processed by PEG precipitation and analysed by cell culture.

All samples are processed according to methods WI 300, WI 429, WI 500-561 inclusive as appropriate.

All controls were valid. (<1 denotes viruses not detected.) The results are shown in the following table.

VIRUSES DETECTED BY CELL CULTURE

Sample Identification	Date Sampled	Laboratory Number	Viruses isolated in Cell Culture	Number of Viruses detected Per 10 grams
No00568	01/11/13	13-0509	Reovirus Enterovirus Adenovirus	<1 <1 <1
No00569	01/11/13	13-0510	Reovirus Enterovirus Adenovirus	<1 <1 <1
No00570	01/11/13	13-0511	Reovirus Enterovirus Adenovirus	<1 <1 <1
No00571	01/11/13	13-0512	Reovirus Enterovirus Adenovirus	<1 <1 <1
No00572	01/11/13	13-0513	Reovirus Enterovirus Adenovirus	<1 <1 <1
No00573	01/11/13	13-0514	Reovirus Enterovirus Adenovirus	<1 <1 <1
No00574	01/11/13	13-0515	Reovirus Enterovirus Adenovirus	<1 <1 <1

Dr. G. S. Grohmann
Principal Consultant

Ref:c:\pathogens\mgt\081113.rep

Environmental Pathogens
Pty Limited ABN 84 073 422 134

PO Box 82 Campbell ACT 2612
pathogens@bigpond.com
www.pathogens.com.au

Canberra Tel/fax 61.2.6247 0982
Sydney Tel/fax 61.2.9449 6901
Mobile 0419 414 572

eurofins | mgt

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

Attention: **Michelle Delandro**

Report **398304-S**
Client Reference EXTERNAL: URBAN GROWTH 43008
Received Date Nov 01, 2013

Client Sample ID			**TP16 2.7-2.8**	**TP26 0.9-1.0**	**TP18 1.0-1.1**	**TP18 1.8-1.9**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S13-No00568**	**S13-No00569**	**S13-No00570**	**S13-No00571**
Date Sampled			**Oct 31, 2013**	**Oct 31, 2013**	**Oct 31, 2013**	**Oct 31, 2013**
Test/Reference	LOR	Unit				
Enteric Viruses Presence/Absence (Adenovirus Enterovirus and Reovirus)						
Helminth Ova						

Client Sample ID			**TP19 1.9-2.0**	**TP17 0.9-1.0**	**TP17 1.8-1.9**
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S13-No00572**	**S13-No00573**	**S13-No00574**
Date Sampled			**Oct 31, 2013**	**Oct 31, 2013**	**Oct 31, 2013**
Test/Reference	LOR	Unit			
Enteric Viruses Presence/Absence (Adenovirus Enterovirus and Reovirus)					
Helminth Ova					

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
Helminth Ova	Sydney	Nov 01, 2013	0 Day

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 9:52 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:** **Phone:** **Fax:**	398304 02 8245 0300	**Due:** **Priority:** **Contact Name:**	Nov 15, 2013 10 Day Thomas Harding
Client Job No.:	EXTERNAL: URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					Enteric Viruses Presence/Absence (Adenovirus Enterovirus and Reovirus)	Helminth Ova
boratory where analysis is conducted						
elbourne Laboratory - NATA Site # 1254 & 14271						
dney Laboratory - NATA Site # 18217						
isbane Laboratory - NATA Site # 20794						
ternal Laboratory					X	X
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
16 2.7-2.8	Oct 31, 2013		Soil	S13-No00568	X	X
26 0.9-1.0	Oct 31, 2013		Soil	S13-No00569	X	X
18 1.0-1.1	Oct 31, 2013		Soil	S13-No00570	X	X
18 1.8-1.9	Oct 31, 2013		Soil	S13-No00571	X	X
19 1.9-2.0	Oct 31, 2013		Soil	S13-No00572	X	X
17 0.9-1.0	Oct 31, 2013		Soil	S13-No00573	X	X
17 1.8-1.9	Oct 31, 2013		Soil	S13-No00574	X	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

UNITS

mg/kg: milligrams per Kilogram

ug/l: micrograms per litre

ppb: Parts per billion

org/100ml: Organisms per 100 millilitres

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

mg/l: milligrams per litre

ppm: Parts per million

%: Percentage

NTU: Units

TERMS

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

QC - ACCEPTANCE CRITERIA

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

Results <10 times the LOR : No Limit

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

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

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

QC DATA GENERAL COMMENTS

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

Comments

Helminth ova and Enteric viruses analysed by Environmental Pathogens

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	Yes

Authorised By

Jean Heng Client Services

Dr. Bob Symons
Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

Sefton McGraw
Eurofins Environment Testing Australia P/L
PO Box 276
Oakleigh VIC 3166
ph 03 95647055 fax 03 95647190

Final Report – 14/11/13

Three biosolid samples were received and analysed for Viruses as requested.

For virus detection ~20g of sample was dissolved in buffer and processed by PEG precipitation and analysed by cell culture.

All samples are processed according to methods WI 300, WI 429, WI 500-561 inclusive as appropriate.

All controls were valid. (<1 denotes viruses not detected.) The results are shown in the following table.

VIRUSES DETECTED BY CELL CULTURE

Sample Identification	Date Sampled	Laboratory Number	Viruses isolated in Cell Culture	Number of Viruses detected Per 10 grams
No00922	04/11/13	13-0521	Reovirus Enterovirus Adenovirus	<1 <1 <1
No00923	04/11/13	13-0522	Reovirus Enterovirus Adenovirus	<1 <1 <1
No00924	04/11/13	13-0523	Reovirus Enterovirus Adenovirus	<1 <1 <1

Dr. G. S. Grohmann
Principal Consultant

thardinge@jbsg.com.au
elui@jbsg.com.au
mdelandro@jbsg.com.au

PO 1 of 3

#398113

JBS&G

CHAIN OF CUSTODY

PROJECT NO.: 43008
PROJECT NAME: Urban Growth
SEND REPORT TO:
SEND INVOICE TO: gis.jbsg.com.au
DATE NEEDED BY: Standard
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

LABORATORY BATCH NO:
SAMPLERS EL & MD.
PHONE: 02 82450300 EMAIL:
QC LEVEL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	TRH/BTEX	TPH aph/arom	TPH Silica Gel	Biologicals	Nutrients	PAHs	Asbestos	PCB/OCP	ASLP	EC	pH	PH	CEC	organic matter	ammonia	NOTES
TP01 0.1-0.2	S	30/10/13				X				X		X										
TP01 0.6-0.7						X						X				X	X	X	X	X		TPH aliphatic/aromatic split
TP01 1.4-1.5																						
TP01 1.9-2.0										X						X	X	X	X	X		
TP02 0.1-0.2				Combo 5A →		X	X					X	X	X		X	X	X	X	X		Biologicals = E coli, Salmonella, Faecal coliforms
TP02 0.4-0.5																						
TP02 0.9-1.0																						
TP02 1.4-1.5																						
TP02 3.4-3.5																						
TP03 0.1-0.2						X						X	X	X								
TP03 0.4-0.5																						
TP03 1.9-2.0																						
TP03 4.3-4.4																						
TP04 0.1-0.2				Combo 5 →		X	X					X		X								
TP04 0.6-0.7																						
TP04 1.2-1.3						X	X				X	X									X	Ammonia odour.
TP04 3.6-3.7	↓	↓	12pm				X			X		X										bacteria.

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: M. Delandro DATE: 30.10.13	CONSIGNMENT NOTE NO.	NAME: Ellen Ng DATE: 31/10/13	COOLER SEAL – Yes / No Intact / Broken
OF: JBS&G	TRANSPORT CO.	OF: EP Mgt 11:20	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

EXTERNAL: 398367

thardin@jbsg.com.au
elul@jbsg.com.au
mdelandro@jbsg.com.au

pg 2 of 3

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 43005
PROJECT NAME: Urban Growth
SEND REPORT TO: SEND INVOICE TO:
DATE NEEDED BY:
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

LABORATORY BATCH NO.
SAMPLERS EL & MD
PHONE: 02 82450300 EMAIL:
QC LEVEL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	TPH/BTEX	PAHS	TPH aliph/arom	TPH Silica	Biological	Nutrients	asbestos	PCB/OCPS	AsIP	EC	Cl	pH	CEC	organic matter	ammonia	NOTES
TP05 0.1-0.2	S	30/10/13				X		X					X									
TP05 0.6-0.7	↓	↓																				
TP05 1.1-1.2																						
TP05 3.9-4.0																						
QS001				Combo 5A →		X	X	X					X	X								
QS001A						X	X	X					X	X								SECONDARY LAB
TP06 0.1-0.2						X		X						X								
TP06 0.4-0.5																						
TP06 1.4-1.5																						
TP06 2.4-2.5																						
TP07 0.1-0.2						X		X														
TP07 0.4-0.5																						
TP07 1.4-1.5																						
TP07 3.4-3.5				Combo 2 →		X	X	X														
TP08 0.1-0.2						X		X					X			X	X	X	X	X		
TP08 1.5-1.6																X	X	X	X	X		
TP08 2.4-2.5	↓	↓																				

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: M. Delandro DATE: 30/10/13	CONSIGNMENT NOTE NO.	NAME: Eleng Wong DATE: 31/10/13 11:20	COOLER SEAL – Yes...... No .... Intact .... Broken ....
OF: JBS&G	TRANSPORT CO.	OF: Envirolab	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

tharding@jbsg.com.au
eliu@jbsg.com.au
mdelandro@jbsg.com.au

pg 3 of 3

#398113

JBS&G

CHAIN OF CUSTODY

PROJECT NO.: 43005	LABORATORY BATCH NO.
PROJECT NAME: Urban Growth	SAMPLERS EL + MD.
SEND REPORT TO:	SEND INVOICE TO: gng@gmdition	PHONE: 02 82450300 EMAIL:
DATE NEEDED BY:	QC LEVEL:
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:	

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	TPH/BTEX	TPH aliph/arom	TPH Silica Gel	Biological	nutrients	PAHs	asbestos	PCB/OPPs	AsLP	EC	Fe	pH	CEC	organic matter	ammonia	NOTES
TP09 0.1-0.2	S	30/10/13				X	X	X	X	X		X		X								
TP09 0.4-0.5	↓	↓																				
TP09 1.2-1.3	↓	↓																				
QS002	↓	↓		Combo 2 →		X	X					X										
QS002A.	↓	↓				X	X					X										SECONDARY LAB.
TP[illegible] 0.1-0.2	↓	↓				X						X	X									
TP[illegible] 0.4-0.5	↓	↓																				
TP10 2.3-2.4	↓	↓																				
TP11 [illegible]-0.2	↓	↓				X						X		X								
TP11 0.6-0.7	↓	↓																				
TP11 1.9-2.0	↓	↓				X	X															
TP09 1.5-1.6.	↓	↓																				
TB	↓	29/10/13																				
TS	↓.	25/10/13.																				

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: M.Delandro DATE: 30/10/13 OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: Ellen Ng OF: Ef/mgt DATE: 31/10/13 11:20	COOLER SEAL – Yes......: No .... Intact .... Broken .... COOLER TEMP ...... deg C
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: DATE: OF:	COOLER SEAL – Yes...... No .... Intact .... Broken .... COOLER TEMP ...... deg C

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

EXTERNAL # 398367

From: Thomas Harding [mailto:THarding@jbsg.com.au]
Sent: Friday, 1 November 2013 8:17 AM
To: Jean Heng
Subject: Ed Park

Jean,

The auditor works these works would like to include the following analysis for all the biological works:

- enteric viruses and helminth ova

Apologies, we were only told this morning.

Thank you

Tom

JBS&G # 398367

Tom Harding | Hydrogeologist | JBS&G
Sydney | Melbourne | Adelaide | Perth | Brisbane
Level 1, 50 Margaret Street Sydney NSW 2000
T: 02 8245 0300 | M: 0418 560 381 | www.jbsg.com.au
Contaminated Land | Groundwater Remediation | Auditing and Compliance | Assessments and Approvals | Occupational Hygiene and Monitoring

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Oct 31, 2013 11:20 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:** **Phone:** **Fax:**	398367 02 8245 0300	**Due:** **Priority:** **Contact Name:**	Nov 8, 2013 5 Day Thomas Harding
Client Job No.:	EXTERNAL: URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					Enteric Viruses Presence/Absence (Adenovirus Enterovirus and Reovirus)	Helminth Ova
boratory where analysis is conducted						
elbourne Laboratory - NATA Site # 1254 & 14271						
dney Laboratory - NATA Site # 18217						
isbane Laboratory - NATA Site # 20794						
ternal Laboratory					X	X
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
01 1.9-2.0	Oct 30, 2013		Soil	S13-No00922	X	X
04 3.6-3.7	Oct 30, 2013		Soil	S13-No00923	X	X
09 0.1-0.2	Oct 30, 2013		Soil	S13-No00924	X	X

eurofins mgt

eurofins | mgt

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

Attention: **Michelle Delandro**

Report **398367-S**
Client Reference EXTERNAL: URBAN GROWTH 43008
Received Date Oct 31, 2013

Client Sample ID			**TP01 1.9-2.0**	**TP04 3.6-3.7**	**TP09 0.1-0.2**
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S13-No00922**	**S13-No00923**	**S13-No00924**
Date Sampled			**Oct 30, 2013**	**Oct 30, 2013**	**Oct 30, 2013**
Test/Reference	LOR	Unit			
Enteric Viruses Presence/Absence (Adenovirus Enterovirus and Reovirus)					
Helminth Ova					

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
Helminth Ova	Sydney	Nov 01, 2013	0 Day

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Oct 31, 2013 11:20 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:** **Phone:** **Fax:**	398367 02 8245 0300	**Due:** **Priority:** **Contact Name:**	Nov 8, 2013 5 Day Thomas Harding
Client Job No.:	EXTERNAL: URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					Enteric Viruses Presence/Absence (Adenovirus Enterovirus and Reovirus)	Helminth Ova
boratory where analysis is conducted						
elbourne Laboratory - NATA Site # 1254 & 14271						
dney Laboratory - NATA Site # 18217						
isbane Laboratory - NATA Site # 20794						
ternal Laboratory					X	X
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
01 1.9-2.0	Oct 30, 2013		Soil	S13-No00922	X	X
04 3.6-3.7	Oct 30, 2013		Soil	S13-No00923	X	X
09 0.1-0.2	Oct 30, 2013		Soil	S13-No00924	X	X

eurofins mgt

Eurofins | mgt Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

UNITS

mg/kg: milligrams per Kilogram

ug/l: micrograms per litre

ppb: Parts per billion

org/100ml: Organisms per 100 millilitres

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

mg/l: milligrams per litre

ppm: Parts per million

%: Percentage

NTU: Units

TERMS

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

QC - ACCEPTANCE CRITERIA

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

Results <10 times the LOR : No Limit

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

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

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

QC DATA GENERAL COMMENTS

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

Comments

Viruses analysed by Environmental Pathogens

Sample Integrity

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

Authorised By

Jean Heng Client Services

Dr. Bob Symons
Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

Sefton McGraw
Eurofins Environment Testing Australia P/L
PO Box 276
Oakleigh VIC 3166
ph 03 95647055 fax 03 95647190

Final Report – 15/11/13

Four biosolid samples were received and analysed for Viruses as requested.

For virus detection ~20g of sample was dissolved in buffer and processed by PEG precipitation and analysed by cell culture.

All samples are processed according to methods WI 300, WI 429, WI 500-561 inclusive as appropriate.

All controls were valid. (<1 denotes viruses not detected.) The results are shown in the following table.

VIRUSES DETECTED BY CELL CULTURE

Sample Identification	Date Sampled	Laboratory Number	Viruses isolated in Cell Culture	Number of Viruses detected Per 10 grams
No01401	04/11/13	13-0528	Reovirus Enterovirus Adenovirus	<1 <1 <1
No01402	04/11/13	13-0529	Reovirus Enterovirus Adenovirus	<1 <1 <1
No01403	04/11/13	13-0530	Reovirus Enterovirus Adenovirus	<1 <1 <1
No01404	04/11/13	13-0531	Reovirus Enterovirus Adenovirus	<1 <1 <1

Dr. G. S. Grohmann
Principal Consultant

External = # 398436

tharding@jbsg.com.au
elluc@jbsg.com.au
mdelandro@jbsg.com.au

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 43008
PROJECT NAME: Urban Growth
SEND REPORT TO: Tharding SEND INVOICE TO: gpg@jbsg.com.au
DATE NEEDED BY: Standard 3 day TAT
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

LABORATORY BATCH NO.
SAMPLERS EL & EMD
PHONE: 02 82450300 EMAIL:
QC LEVEL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	PAHs	TPH/BTEX	TPH Silica Gel	OCPs/PCBs	asbestos	ASLP	Biological	Fe	CEC	PH	Organic Matter	Nutrients	TPH/Phen/Chrom	ammonia		NOTES
TP29 0.1-0.2	S	1/11/13				X	X	X		X	X											
TP29 0.4-0.5																						
TP29 1.4-1.5																						
TP29 1.9-2.0																						
TP29 2.4-2.5																						
TP29 2.9-3.0														X	X	X	X					
QS003						Hold																
QS003A						Hold																
TP27 0.1-0.2																						
TP27 0.4-0.5						X	X	X	X													
TP27 0.9-1.0																						
TP27 2.4-2.5																						
TP24 0.1-0.2						X																
TP24 0.4-0.5																						
TP24 1.4-1.5																						
TP24 2.4-2.5																						
TP23 0.1-0.2						X	X	X		X												
TP32 0.1-0.2																						

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: Ellen Wu DATE: 1/11/13	COOLER SEAL - Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	OF: EFTPOST 17:15	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

tharding@jbsg.com.au
elau@jbsg.com.au
ndellendro@jbsg.com.au

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 43098
PROJECT NAME: Urban Growth
SEND REPORT TO:
SEND INVOICE TO: gng@jbsg.com.au
DATE NEEDED BY: Standard
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

LABORATORY BATCH NO.
SAMPLERS EJ NJD
PHONE: 02 82450300 EMAIL:
QC LEVEL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals X	PAHs	TPH/BTEX	OCP/PCBs	asbestos	ASLP	Biological	Nutrients	Fe	PH	Organic Matter	CEC	Ammonia	TPH alpha/gram	TPH Silica gel		NOTES
TP32 0.4-0.5	S	1/11/13																				
TP32 0.9-1.0																						
TP32 1.4-1.5																						
TP32 2.4-2.5																						
TP32 3.4-3.5																						
TP32 4.4-4.5																						
TP32 5.4-5.5																						
TP32 6.4-6.5																						
TP32 6.9-7.0																						
TP32 7.9-8.0												X	X									
TP32 9.9-10.0																						
TP33 0.1-0.2												X										
TP34 0.1-0.2												X										
TP35 0.1-0.2												X										
TP17 0.4-0.5																						
TP18 0.4-0.5																						
TP33 0.1-0.2																						
TP34 0.1-0.2	S																					

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	OF:	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

thardingj@jbsg.com.au
ewu@jbsg.com.au
mdelgado@jbsg.com.au

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 43005	LABORATORY BATCH NO.
PROJECT NAME: Orbdy Growth	SAMPLERS: EL & MP
SEND REPORT TO: THarding SEND INVOICE TO: gag@jbsg.com.au	PHONE: 02 82450300 EMAIL:
DATE NEEDED BY: 5 day	QC LEVEL:

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	TRH/BTEX	PAHs	TPH aliph arom	TPH silica gel	Fe	CEC	ASLP	PH	Biological	Nutrients	Ammonia	PCB/OCPs	Organic matter	asbestos		NOTES
TP35 0.1-0.2	S	1/11/13																				
Rinsate2	S	↓				X	X	X										X				
Trip S	W	29/10/13					X															
Trip B	W	29/10/13					X															
TP18 0.4-0.5																						
~~TP29 0.1-0.2~~																						
TP29 0.9-1																						
QS004						X	X	X										X				
QS004A						X	X	X										X				Send to Envirolab.
QS004 A																				X		Send to Rickbrod

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes....... No .... Intact .... Broken ....
OF: JBS&G	TRANSPORT CO.	OF:	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

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eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh Vic 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F6, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Sample Receipt Advice

Company name: **JBS & G (NSW & WA) Pty Ltd**

Contact name: Thomas Harding
Client job number: EXTERNAL : URBAN GROWTH 43008
COC number: Not provided
Turn around time: 10 Day
Date/Time received: Nov 1, 2013 5:15 PM
Eurofins | mgt reference: **398436**

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 : 9.5 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.

☑ Organic samples had Teflon liners.

☑ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Notes

Parent report 398440 | Anlaysis performed by Enviromental Pathogens Canberra

Contact notes

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

Jean Heng on Phone : (+61) (2) 9900 8400 or by e.mail: JeanHeng@eurofins.com.au

Results will be delivered electronically via e.mail to Thomas Harding - tharding@jbsg.com.au.

Eurofins | mgt Sample Receipt

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 5:15 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:** **Phone:** **Fax:**	398436 02 8245 0300	**Due:** **Priority:** **Contact Name:**	Nov 18, 2013 10 Day Thomas Harding
Client Job No.:	EXTERNAL : URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					Enteric Viruses Presence/Absence (Adenovirus Enterovirus and Reovirus)	Helminth Ova
boratory where analysis is conducted						
elbourne Laboratory - NATA Site # 1254 & 14271						
rdney Laboratory - NATA Site # 18217						
isbane Laboratory - NATA Site # 20794						
ternal Laboratory					X	X
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
32 7.9-8.0	Nov 01, 2013		Soil	S13-No01401	X	X
33 0.1-0.2	Nov 01, 2013		Soil	S13-No01402	X	X
34 0.1-0.2	Nov 01, 2013		Soil	S13-No01403	X	X
35 0.1-0.2	Nov 01, 2013		Soil	S13-No01404	X	X

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

Attention: **Thomas Harding**

Report **398436-S**
Client Reference EXTERNAL : URBAN GROWTH 43008
Received Date Nov 01, 2013

Client Sample ID			**TP32 6.9-7.0**	**TP33 0.1-0.2**	**TP34 0.1-0.2**	**TP35 0.1-0.2**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S13-No01401**	**S13-No01402**	**S13-No01403**	**S13-No01404**
Date Sampled			**Nov 01, 2013**	**Nov 01, 2013**	**Nov 01, 2013**	**Nov 01, 2013**
Test/Reference	LOR	Unit				
Enteric Viruses Presence/Absence (Adenovirus Enterovirus and Reovirus)			see attached	see attached	see attached	see attached
Helminth Ova			see attached	see attached	see attached	see attached

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
Helminth Ova	Sydney	Nov 04, 2013	0 Day

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 5:15 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:** **Phone:** **Fax:**	398436 02 8245 0300	**Due:** **Priority:** **Contact Name:**	Nov 18, 2013 10 Day Thomas Harding
Client Job No.:	EXTERNAL : URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					Enteric Viruses Presence/Absence (Adenovirus Enterovirus and Reovirus)	Helminth Ova
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34 0.1-0.2	Nov 01, 2013		Soil	S13-No01403	X	X
35 0.1-0.2	Nov 01, 2013		Soil	S13-No01404	X	X

Eurofins | mgt Internal Quality Control Review and Glossary

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5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data.

Comments

Virus/Helminth analysed by Environmental Pathogen;

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	Yes

Authorised By

Jean Heng Client Services

Dr. Bob Symons
Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

External = # 398436

tharding@jbsg.com.au
ellue@jbsg.com.au
mdelandro@jbsg.com.au

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 43008
PROJECT NAME: Urban growth
SEND REPORT TO: Tharding SEND INVOICE TO: ap@jbsg.com.au
DATE NEEDED BY: Standard 5 day
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

LABORATORY BATCH NO.
SAMPLERS EL & MD
PHONE: 02 82450300 EMAIL:
QC LEVEL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	PAHs	TPH/BTEX	TPH Silica Gel	OCPs/PCBs	Asbestos	ASLP	Biological	Fe	CEC	PH	Organic Matter	Nutrients	TPH/OPH/Chrom	Ammonia		NOTES
TP29 0.1-0.2	S	1/11/13				X	X	X		X	X											
TP29 0.4-0.5																						
TP29 1.4-1.5																						
TP29 1.9-2.0																						
TP29 2.4-2.5																						
TP29 2.9-3.0														X	X	X	X					
QS003						Hold																
QS003A						Hold																
TP27 0.1-0.2																						
TP27 0.4-0.5						X	X	X	X													
TP27 0.9-1.0																						
TP27 2.4-2.5																						
TP24 0.1-0.2						X																
TP24 0.4-0.5																						
TP24 1.4-1.5																						
TD24 2.4-2.5																						
TP23 0.1-0.2						X	X	X		X												
TP32 0.1-0.2																						

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: Elkin Ng DATE: 1/11/13 17:15	COOLER SEAL - Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	OF: EPingt	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

tharding@jbsg.com.au
elun@jbsg.com.au
ndellandro@jbsg.com.au

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 43988	LABORATORY BATCH NO.
PROJECT NAME: Urban Growth	SAMPLERS RJ MJO
SEND REPORT TO: SEND INVOICE TO: gng@jbsg.com.au	PHONE: 02 82450300 EMAIL:
DATE NEEDED BY: Standard	QC LEVEL:
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:	

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	PAHs	TPH/BTEX	OCP/PCBs	Asbestos	ASLP	Biological	Asbestos	Fe	PH	Organics Monitor	CEC	Ammonia	TPH clean/ arom.	TPH Silica gel		NOTES
TP32 0.4-0.5	S	1/11/13				X																
TP32 0.9-1.0																						
TP32 1.4-1.5																						
TP32 2.4-2.5																						
TP32 3.4-3.5																						
TP32 4.4-4.5																						
TP32 5.4-5.5																						
TP32 6.4-6.5																						
TP32 6.9-7.0																						
TP32 7.9-8.0												X	X									
TP32 9.9-10.0																						
TP33 0.1-0.2												X										
TP34 0.1-0.2												X										
TP35 0.1-0.2												X										
TP17 0.4-0.5																						
TP18 0.4-0.5																						
TP33 0.1-0.2																						
TP34 0.1-0.2	S																					

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL - Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	OF:	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

thardiny@jbsg.com.au
ewu@jbsg.com.au
mdelandro@jbsg.com.au

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 43003	LABORATORY BATCH NO.
PROJECT NAME: Urban Growth	SAMPLERS EL & MP
SEND REPORT TO: T Harding / SEND INVOICE TO: gng@jbsg.com.au	PHONE: 02 82450300 EMAIL:
DATE NEEDED BY: 5 day	QC LEVEL:
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:	

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	TRH/BTEX	PAHs	TPH aliph arom	TPH silica gel	Fe	CEC	ASLP	PH	Biological	Nutrients	Ammonia	PCB/OCPs	organic matter	asbestos		NOTES
TP35 0.1-0.2	[illegible]	1/11/13																				
Rinsate2	S	↓				X	X	X										X				
Trip3	W	29/10/13					X															
TripB	W	29/10/13					X															
TP18 0.4-0.5																						
~~TP23 0.1-0.2~~																						
TP29 0.9-1																						
QS004						X	X	X										X				
QS004A						X	X	X										X				Send to Envirolab.
QS004A																				X		Send to Pickford

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes...... No .... Intact .... Broken ....
OF: JBS&G	TRANSPORT CO.	OF:	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

Food & Pharmaceutical

EUROFINS ENVIRONMENT TESTING AUSTRALIA P/L
UNIT F3 PARK VIEW BUILDING
16 MARS ROAD
LANE COVE NSW, 2066

Attention: **Jean Heng**

CERTIFICATE OF ANALYSIS

Our Ref No: FS1333747 **Your Ref:** 13-827-398440

Report Date: 11 Nov 2013. Project:

Overall Description: Soil Samples
Samples Received: 05 Nov 2013 at 13:17 hrs.
Testing Commenced: 05 Nov 2013 at 17:30 hrs.

This report cannot be reproduced except in full, without written approval from the laboratory.
Samples tested as received into the laboratory.

Sample Details: Test Description		Results	Units	Site
001 Client ID: TP32 6.9-7.0 Eurofin/MGT ID: No01491 (NATA Accredited)				
WM0001	Salmonella spp	N/D	in 25g	NSW
WM0010	E. coli	<2.0	MPN/g	NSW
WM0010	Faecal Coliforms	<2.0	MPN/g	NSW
002 Client ID: TP33 0.1-0.2 Eurofin/MGT ID: No01494 (NATA Accredited)				
WM0001	Salmonella spp	N/D	in 25g	NSW
WM0010	E. coli	<2.0	MPN/g	NSW
WM0010	Faecal Coliforms	<2.0	MPN/g	NSW
003 Client ID: TP34 0.1-0.2 Eurofin/MGT ID: No01495 (NATA Accredited)				
WM0001	Salmonella spp	N/D	in 25g	NSW
WM0010	E. coli	<2.0	MPN/g	NSW
WM0010	Faecal Coliforms	<2.0	MPN/g	NSW
004 Client ID: TP35 0.1-0.2 Eurofin/MGT ID: No01496 (NATA Accredited)				
WM0001	Salmonella spp	N/D	in 25g	NSW
WM0010	E. coli	<2.0	MPN/g	NSW
WM0010	Faecal Coliforms	<2.0	MPN/g	NSW

10/2-8 South Street, Rydalmere NSW 2116 Phone: +61 2 8832 7500 Fax: +61 2 9898 3472
Food & Pharmaceutical. An ALS Limited Company

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Tina Papadopoulos	Laboratory Manager - Microbiology	Water Microbiology

NATA
WORLD RECOGNISED ACCREDITATION

General Comments

Accredited for compliance with ISO/IEC 17025

10/2-8 South Street, Rydalmere NSW 2116 Phone: +61 2 8832 7500 Fax: +61 2 9898 3472

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Food & Pharmaceutical www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh Vic 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F6, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Sample Receipt Advice

Company name:	**JBS & G (NSW & WA) Pty Ltd**
Contact name:	Michelle Delandro
Client job number:	URBAN GROWTH 43008
COC number:	Not provided
Turn around time:	5 Day
Date/Time received:	Nov 1, 2013 5:15 PM
Eurofins | mgt reference:	**398440**

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 : 9.5 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.

☑ Organic samples had Teflon liners.

☑ Sample containers for volatile analysis received with zero headspace.

☑ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Notes

Asbestos conducted at Envirolab | Microbiological analysis conducted at ALS | QS004A forwarded to Envirolab and Pickford as requested | QS003, QA003A and TP29 1.9-2.0 not received, analysis cancelled | TP33 0.1-0.2, TP34 0.1-0.2 and TP35 0.1-0.2 doubled up on the COC, one set removed | One bag labeled as TP34, not found on COC, thus placed on hold

Contact notes

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

Jean Heng on Phone : (+61) (2) 9900 8400 or by e.mail: JeanHeng@eurofins.com.au

Results will be delivered electronically via e.mail to Michelle Delandro - MDelandro@jbsg.com.au.

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 5:15 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	398440	**Due:**	Nov 11, 2013
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Michelle Delandro
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Phosphorus	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup (TPH)	Total Nitrogen Set (as N)	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
boratory where analysis is conducted																															
elbourne Laboratory - NATA Site # 1254 & 14271														X																X	
dney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X	X		X
isbane Laboratory - NATA Site # 20794																																
ternal Laboratory								X	X								X														
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																												
29 0.1-0.2	Nov 01, 2013		Soil	S13-No01465	X																	X	X	X	X	X			X		
29 0.4-0.5	Nov 01, 2013		Soil	S13-No01466						X																					
29 1.4-1.5	Nov 01, 2013		Soil	S13-No01467						X																					
29 1.9-2.0	Nov 01, 2013		Soil	S13-No01468		X																									
29 2.4-2.5	Nov 01, 2013		Soil	S13-No01469						X																					
29 2.9-3.0	Nov 01, 2013		Soil	S13-No01470	X						X			X	X															X	
003	Nov 01, 2013		Soil	S13-No01471		X																									
003A	Nov 01, 2013		Soil	S13-No01472		X																									
27 0.1-0.2	Nov 01, 2013		Soil	S13-No01473						X																					
27 0.4-0.5	Nov 01, 2013		Soil	S13-No01474	X																	X		X	X		X		X		X

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 5:15 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:** **Phone:** **Fax:**	398440 02 8245 0300	**Due:** **Priority:** **Contact Name:**	Nov 11, 2013 5 Day Michelle Delandro
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Phosphorus	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup (TPH)	Total Nitrogen Set (as N)	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
boratory where analysis is conducted																															
elbourne Laboratory - NATA Site # 1254 & 14271														X																X	
dney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X	X		X
isbane Laboratory - NATA Site # 20794																																
ternal Laboratory								X	X								X														
27 0.9-1.0	Nov 01, 2013		Soil	S13-No01475						X																						
27 2.4-2.5	Nov 01, 2013		Soil	S13-No01476						X																						
24 0.1-0.2	Nov 01, 2013		Soil	S13-No01477	X																			X								
27 0.4-0.5	Nov 01, 2013		Soil	S13-No01478						X																						
24 1.4-1.5	Nov 01, 2013		Soil	S13-No01479						X																						
24 2.4-2.5	Nov 01, 2013		Soil	S13-No01480						X																						
23 0.1-0.2	Nov 01, 2013		Soil	S13-No01481	X																	X	X	X	X	X			X			
32 0.1-0.2	Nov 01, 2013		Soil	S13-No01482						X																						
32 0.4-0.5	Nov 01, 2013		Soil	S13-No01483	X																			X								
32 0.9-1.0	Nov 01, 2013		Soil	S13-No01484						X																						
32 1.4-1.5	Nov 01, 2013		Soil	S13-No01485						X																						

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 5:15 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	398440	**Due:**	Nov 11, 2013
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Michelle Delandro
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Phosphorus	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup (TPH)	Total Nitrogen Set (as N)	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
boratory where analysis is conducted																															
elbourne Laboratory - NATA Site # 1254 & 14271														X																	X	
dney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X	X		X
isbane Laboratory - NATA Site # 20794																																
ternal Laboratory								X	X								X														
32 2.4-2.5	Nov 01, 2013		Soil	S13-No01486						X																						
32 3.4-3.5	Nov 01, 2013		Soil	S13-No01487						X																						
32 4.4-4.5	Nov 01, 2013		Soil	S13-No01488						X																						
32 5.4-5.5	Nov 01, 2013		Soil	S13-No01489						X																						
32 6.4-6.5	Nov 01, 2013		Soil	S13-No01490						X																						
32 6.9-7.0	Nov 01, 2013		Soil	S13-No01491				X	X								X															
32 7.9-8.0	Nov 01, 2013		Soil	S13-No01492	X		X					X	X			X		X	X	X								X				
32 9.9-10.0	Nov 01, 2013		Soil	S13-No01493						X																						
33 0.1-0.2	Nov 01, 2013		Soil	S13-No01494				X	X								X															
34 0.1-0.2	Nov 01, 2013		Soil	S13-No01495				X	X								X															
35 0.1-0.2	Nov 01, 2013		Soil	S13-No01496				X	X								X															

mgt

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Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 5:15 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	398440	**Due:**	Nov 11, 2013
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Michelle Delandro
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Phosphorus	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup (TPH)	Total Nitrogen Set (as N)	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
boratory where analysis is conducted																															
elbourne Laboratory - NATA Site # 1254 & 14271														X																X	
dney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X	X		X
isbane Laboratory - NATA Site # 20794																																
ternal Laboratory								X	X								X														
217 0.4-0.5	Nov 01, 2013		Soil	S13-No01497						X																					
218 0.4-0.5	Nov 01, 2013		Soil	S13-No01498						X																					
NSATE 2	Nov 01, 2013		Water	S13-No01502																	X	X	X	X	X			X		
131029-2	Oct 29, 2013		Soil	S13-No01503																	X			X						
131029-2	Oct 29, 2013		Soil	S13-No01504																	X			X						
218 0.4-0.5	Oct 29, 2013		Soil	S13-No01505						X																					
229 0.9-1	Oct 29, 2013		Soil	S13-No01506						X																					
3004	Oct 29, 2013		Soil	S13-No01507	X																X	X	X	X	X			X		
LAB131029-	Oct 29, 2013		Soil	S13-No01508																	X			X						
234	Oct 29, 2013		Soil	S13-No01955						X																					

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

Attention: **Thomas Harding**

Report **398440-S**
Client Reference URBAN GROWTH 43008
Received Date Nov 01, 2013

Client Sample ID			**TP29 0.1-0.2**	**TP29 2.9-3.0**	**TP27 0.4-0.5**	**TP24 0.1-0.2**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S13-No01465**	**S13-No01470**	**S13-No01474**	**S13-No01477**
Date Sampled			**Nov 01, 2013**	**Nov 01, 2013**	**Nov 01, 2013**	**Nov 01, 2013**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	-	< 20	-
TRH C10-C14	20	mg/kg	< 20	-	< 20	-
TRH C15-C28	50	mg/kg	< 50	-	< 50	-
TRH C29-C36	50	mg/kg	< 50	-	< 50	-
TRH C10-36 (Total)	50	mg/kg	< 50	-	< 50	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	-	< 0.1	-
Toluene	0.1	mg/kg	< 0.1	-	< 0.1	-
Ethylbenzene	0.1	mg/kg	< 0.1	-	< 0.1	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-	< 0.2	-
o-Xylene	0.1	mg/kg	< 0.1	-	< 0.1	-
Xylenes - Total	0.3	mg/kg	< 0.3	-	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	120	-	117	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	-	< 0.5	-
TRH C6-C10	20	mg/kg	< 20	-	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	-	< 20	-
TRH >C10-C16	50	mg/kg	< 50	-	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-	< 50	-
TRH >C16-C34	100	mg/kg	< 100	-	< 100	-
TRH >C34-C40	100	mg/kg	< 100	-	< 100	-
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	< 0.5	-	< 0.5	-
Acenaphthylene	0.5	mg/kg	< 0.5	-	< 0.5	-
Anthracene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	-
Chrysene	0.5	mg/kg	< 0.5	-	< 0.5	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	-
Fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	-
Fluorene	0.5	mg/kg	< 0.5	-	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Naphthalene	0.5	mg/kg	< 0.5	-	< 0.5	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP29 0.1-0.2 Soil S13-No01465 Nov 01, 2013	TP29 2.9-3.0 Soil S13-No01470 Nov 01, 2013	TP27 0.4-0.5 Soil S13-No01474 Nov 01, 2013	TP24 0.1-0.2 Soil S13-No01477 Nov 01, 2013
Polycyclic Aromatic Hydrocarbons						
Phenanthrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Pyrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Total PAH	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(a)pyrene TEQ*	0.5	mg/kg	0.6	-	0.6	-
2-Fluorobiphenyl (surr.)	1	%	88	-	93	-
p-Terphenyl-d14 (surr.)	1	%	75	-	72	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	-	-
4.4'-DDD	0.05	mg/kg	< 0.05	-	-	-
4.4'-DDE	0.05	mg/kg	< 0.05	-	-	-
4.4'-DDT	0.05	mg/kg	< 0.05	-	-	-
a-BHC	0.05	mg/kg	< 0.05	-	-	-
Aldrin	0.05	mg/kg	< 0.05	-	-	-
b-BHC	0.05	mg/kg	< 0.05	-	-	-
d-BHC	0.05	mg/kg	< 0.05	-	-	-
Dieldrin	0.05	mg/kg	< 0.05	-	-	-
Endosulfan I	0.05	mg/kg	< 0.05	-	-	-
Endosulfan II	0.05	mg/kg	< 0.05	-	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	-
Endrin	0.05	mg/kg	< 0.05	-	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	-
Endrin ketone	0.05	mg/kg	< 0.05	-	-	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	-	-
Heptachlor	0.05	mg/kg	< 0.05	-	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	-
Methoxychlor	0.2	mg/kg	< 0.2	-	-	-
Toxaphene	1	mg/kg	< 1	-	-	-
Dibutylchlorendate (surr.)	1	%	97	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	112	-	-	-
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1232	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1242	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1248	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1254	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1260	0.5	mg/kg	< 0.5	-	-	-
Total PCB	0.5	mg/kg	< 0.5	-	-	-
Dibutylchlorendate (surr.)	1	%	97	-	-	-
Petroleum Hydrocarbons Silica Cleanup (TPH)						
TRH C10-C14 after Silica Cleanup (TPH)	50	mg/kg	-	-	< 50	-
TRH C15-C28 after Silica Cleanup (TPH)	100	mg/kg	-	-	< 100	-
TRH C29-C36 after Silica Cleanup (TPH)	100	mg/kg	-	-	< 100	-
TRH after Silica Cleanup (NEPM) *						
TRH >C10-C16 after Silica Cleanup	50	mg/kg	-	-	< 50	-
TRH >C16-C34 after Silica Cleanup	100	mg/kg	-	-	< 100	-
TRH >C34-C40 after Silica Cleanup	100	mg/kg	-	-	< 100	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP29 0.1-0.2 Soil S13-No01465 Nov 01, 2013	TP29 2.9-3.0 Soil S13-No01470 Nov 01, 2013	TP27 0.4-0.5 Soil S13-No01474 Nov 01, 2013	TP24 0.1-0.2 Soil S13-No01477 Nov 01, 2013
Organic Matter %	0.01	% w/w	-	4.2	-	-
pH (1:5 Aqueous extract)	0.1	units	-	8.5	-	-
% Moisture	0.1	%	14	17	17	11
Cation Exchange Capacity						
Conductivity (1:5 aqueous extract at 25°C)	10	uS/cm	-	120	-	-
Cation Exchange Capacity	0.05	meq/100g	-	17	-	-
Heavy Metals						
Arsenic	2	mg/kg	6.0	-	3.6	5.2
Cadmium	0.4	mg/kg	< 0.4	-	< 0.4	0.4
Chromium	5	mg/kg	8.4	-	11	27
Copper	5	mg/kg	16	-	13	44
Iron	5	mg/kg	-	17000	-	-
Lead	5	mg/kg	10	-	6.3	19
Mercury	0.05	mg/kg	< 0.05	-	< 0.05	0.56
Nickel	5	mg/kg	< 5	-	< 5	20
Zinc	5	mg/kg	34	-	9.8	68

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP23 0.1-0.2 Soil S13-No01481 Nov 01, 2013	TP32 0.4-0.5 Soil S13-No01483 Nov 01, 2013	TP32 6.9-7.0 Soil S13-No01491 Nov 01, 2013	TP32 7.9-8.0 Soil S13-No01492 Nov 01, 2013
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	-	-	-
TRH C10-C14	20	mg/kg	< 20	-	-	-
TRH C15-C28	50	mg/kg	< 50	-	-	-
TRH C29-C36	50	mg/kg	< 50	-	-	-
TRH C10-36 (Total)	50	mg/kg	< 50	-	-	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	-	-	-
Toluene	0.1	mg/kg	< 0.1	-	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	-	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-	-	-
o-Xylene	0.1	mg/kg	< 0.1	-	-	-
Xylenes - Total	0.3	mg/kg	< 0.3	-	-	-
4-Bromofluorobenzene (surr.)	1	%	117	-	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	-	-	-
TRH C6-C10	20	mg/kg	< 20	-	-	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	-	-	-
TRH >C10-C16	50	mg/kg	< 50	-	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-	-	-
TRH >C16-C34	100	mg/kg	< 100	-	-	-
TRH >C34-C40	100	mg/kg	< 100	-	-	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP23 0.1-0.2 Soil S13-No01481 Nov 01, 2013	TP32 0.4-0.5 Soil S13-No01483 Nov 01, 2013	TP32 6.9-7.0 Soil S13-No01491 Nov 01, 2013	TP32 7.9-8.0 Soil S13-No01492 Nov 01, 2013
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	< 0.5	-	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	-	-	-
Anthracene	0.5	mg/kg	< 0.5	-	-	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	-	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	-	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	-	-	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-	-	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	-	-
Chrysene	0.5	mg/kg	< 0.5	-	-	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	-	-
Fluoranthene	0.5	mg/kg	< 0.5	-	-	-
Fluorene	0.5	mg/kg	< 0.5	-	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	-	-
Naphthalene	0.5	mg/kg	< 0.5	-	-	-
Phenanthrene	0.5	mg/kg	< 0.5	-	-	-
Pyrene	0.5	mg/kg	< 0.5	-	-	-
Total PAH	0.5	mg/kg	< 0.5	-	-	-
Benzo(a)pyrene TEQ*	0.5	mg/kg	0.6	-	-	-
2-Fluorobiphenyl (surr.)	1	%	103	-	-	-
p-Terphenyl-d14 (surr.)	1	%	76	-	-	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	-	-
4.4'-DDD	0.05	mg/kg	< 0.05	-	-	-
4.4'-DDE	0.05	mg/kg	< 0.05	-	-	-
4.4'-DDT	0.05	mg/kg	< 0.05	-	-	-
a-BHC	0.05	mg/kg	< 0.05	-	-	-
Aldrin	0.05	mg/kg	< 0.05	-	-	-
b-BHC	0.05	mg/kg	< 0.05	-	-	-
d-BHC	0.05	mg/kg	< 0.05	-	-	-
Dieldrin	0.05	mg/kg	< 0.05	-	-	-
Endosulfan I	0.05	mg/kg	< 0.05	-	-	-
Endosulfan II	0.05	mg/kg	< 0.05	-	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	-
Endrin	0.05	mg/kg	< 0.05	-	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	-
Endrin ketone	0.05	mg/kg	< 0.05	-	-	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	-	-
Heptachlor	0.05	mg/kg	< 0.05	-	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	-
Methoxychlor	0.2	mg/kg	< 0.2	-	-	-
Toxaphene	1	mg/kg	< 1	-	-	-
Dibutylchlorendate (surr.)	1	%	100	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	110	-	-	-
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1232	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1242	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1248	0.5	mg/kg	< 0.5	-	-	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP23 0.1-0.2 Soil S13-No01481 Nov 01, 2013	TP32 0.4-0.5 Soil S13-No01483 Nov 01, 2013	TP32 6.9-7.0 Soil S13-No01491 Nov 01, 2013	TP32 7.9-8.0 Soil S13-No01492 Nov 01, 2013
Polychlorinated Biphenyls (PCB)						
Aroclor-1248	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1254	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1260	0.5	mg/kg	< 0.5	-	-	-
Total PCB	0.5	mg/kg	< 0.5	-	-	-
Dibutylchlorendate (surr.)	1	%	100	-	-	-
Chloride	10	mg/kg	-	-	-	67
Nitrate (as N)	0.1	mg/kg	-	-	-	0.1
Nitrite (as N)	0.1	mg/kg	-	-	-	< 0.1
Sulphate (as S)	10	mg/kg	-	-	-	18
Phosphorus	10	mg/kg	-	-	-	400
Sulphur	100	mg/kg	-	-	-	1200
% Moisture	0.1	%	21	16	-	3.2
Alkalinity						
Total Alkalinity (as CaCO3)	50	mg/kg	-	-	-	1000
Total Nitrogen Set (as N)						
Nitrate & Nitrite (as N)	0.1	mg/kg	-	-	-	0.2
Total Kjeldahl Nitrogen (as N)	10	mg/kg	-	-	-	1300
Total Nitrogen (as N)	10	mg/kg	-	-	-	1300
Heavy Metals						
Arsenic	2	mg/kg	33	6.4	-	-
Cadmium	0.4	mg/kg	1.2	< 0.4	-	-
Chromium	5	mg/kg	36	8.6	-	-
Copper	5	mg/kg	46	15	-	-
Lead	5	mg/kg	59	9.1	-	-
Mercury	0.05	mg/kg	0.91	0.08	-	-
Nickel	5	mg/kg	17	< 5	-	-
Zinc	5	mg/kg	190	19	-	-
E.Coli	1	MPN/g	-	-	see attached	-
Faecal Coliforms	1	MPN/g	-	-	see attached	-
Salmonella	1	org/g	-	-	see attached	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP33 0.1-0.2 Soil S13-No01494 Nov 01, 2013	TP34 0.1-0.2 Soil S13-No01495 Nov 01, 2013	TP35 0.1-0.2 Soil S13-No01496 Nov 01, 2013	TS131029-2 Soil S13-No01503 Oct 29, 2013
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	-	-	100%
BTEX						
Benzene	0.1	mg/kg	-	-	-	98%
Toluene	0.1	mg/kg	-	-	-	100%
Ethylbenzene	0.1	mg/kg	-	-	-	101%
m&p-Xylenes	0.2	mg/kg	-	-	-	101%

Client Sample ID			TP33 0.1-0.2	TP34 0.1-0.2	TP35 0.1-0.2	TS131029-2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S13-No01494	S13-No01495	S13-No01496	S13-No01503
Date Sampled			Nov 01, 2013	Nov 01, 2013	Nov 01, 2013	Oct 29, 2013
Test/Reference	LOR	Unit				
BTEX						
o-Xylene	0.1	mg/kg	-	-	-	101%
Xylenes - Total	0.3	mg/kg	-	-	-	101%
4-Bromofluorobenzene (surr.)	1	%	-	-	-	130
E.Coli	1	MPN/g	see attached	see attached	see attached	-
Faecal Coliforms	1	MPN/g	see attached	see attached	see attached	-
Salmonella	1	org/g	see attached	see attached	see attached	-

Client Sample ID			TB131029-2	QS004
Sample Matrix			Soil	Soil
Eurofins | mgt Sample No.			S13-No01504	S13-No01507
Date Sampled			Oct 29, 2013	Oct 29, 2013
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				
TRH C6-C9	20	mg/kg	< 20	< 20
TRH C10-C14	20	mg/kg	-	< 20
TRH C15-C28	50	mg/kg	-	< 50
TRH C29-C36	50	mg/kg	-	< 50
TRH C10-36 (Total)	50	mg/kg	-	< 50
BTEX				
Benzene	0.1	mg/kg	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	125	120
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				
Naphthalene[N02]	0.5	mg/kg	-	< 0.5
TRH C6-C10	20	mg/kg	-	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	< 20
TRH >C10-C16	50	mg/kg	-	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50
TRH >C16-C34	100	mg/kg	-	< 100
TRH >C34-C40	100	mg/kg	-	< 100
Polycyclic Aromatic Hydrocarbons				
Acenaphthene	0.5	mg/kg	-	< 0.5
Acenaphthylene	0.5	mg/kg	-	< 0.5
Anthracene	0.5	mg/kg	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	-	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5
Chrysene	0.5	mg/kg	-	< 0.5

Client Sample ID			TB131029-2	QS004
Sample Matrix			Soil	Soil
Eurofins | mgt Sample No.			S13-No01504	S13-No01507
Date Sampled			Oct 29, 2013	Oct 29, 2013
Test/Reference	LOR	Unit		
Polycyclic Aromatic Hydrocarbons				
Dibenz(a.h)anthracene	0.5	mg/kg	-	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5
Fluorene	0.5	mg/kg	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5
Phenanthrene	0.5	mg/kg	-	< 0.5
Pyrene	0.5	mg/kg	-	< 0.5
Total PAH	0.5	mg/kg	-	< 0.5
Benzo(a)pyrene TEQ*	0.5	mg/kg	-	0.6
2-Fluorobiphenyl (surr.)	1	%	-	93
p-Terphenyl-d14 (surr.)	1	%	-	71
Organochlorine Pesticides				
Chlordanes - Total	0.1	mg/kg	-	< 0.1
4.4'-DDD	0.05	mg/kg	-	< 0.05
4.4'-DDE	0.05	mg/kg	-	< 0.05
4.4'-DDT	0.05	mg/kg	-	< 0.05
a-BHC	0.05	mg/kg	-	< 0.05
Aldrin	0.05	mg/kg	-	< 0.05
b-BHC	0.05	mg/kg	-	< 0.05
d-BHC	0.05	mg/kg	-	< 0.05
Dieldrin	0.05	mg/kg	-	< 0.05
Endosulfan I	0.05	mg/kg	-	< 0.05
Endosulfan II	0.05	mg/kg	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	< 0.05
Endrin	0.05	mg/kg	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	< 0.05
Endrin ketone	0.05	mg/kg	-	< 0.05
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05
Heptachlor	0.05	mg/kg	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	< 0.05
Methoxychlor	0.2	mg/kg	-	< 0.2
Toxaphene	1	mg/kg	-	< 1
Dibutylchlorendate (surr.)	1	%	-	108
Tetrachloro-m-xylene (surr.)	1	%	-	109
Polychlorinated Biphenyls (PCB)				
Aroclor-1016	0.5	mg/kg	-	< 0.5
Aroclor-1232	0.5	mg/kg	-	< 0.5
Aroclor-1242	0.5	mg/kg	-	< 0.5
Aroclor-1248	0.5	mg/kg	-	< 0.5
Aroclor-1254	0.5	mg/kg	-	< 0.5
Aroclor-1260	0.5	mg/kg	-	< 0.5
Total PCB	0.5	mg/kg	-	< 0.5
Dibutylchlorendate (surr.)	1	%	-	108
% Moisture	0.1	%	-	17
Heavy Metals				
Arsenic	2	mg/kg	-	3.8

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TB131029-2 Soil S13-No01504 Oct 29, 2013	QS004 Soil S13-No01507 Oct 29, 2013
Heavy Metals				
Cadmium	0.4	mg/kg	-	< 0.4
Chromium	5	mg/kg	-	8.5
Copper	5	mg/kg	-	15
Lead	5	mg/kg	-	14
Mercury	0.05	mg/kg	-	< 0.05
Nickel	5	mg/kg	-	< 5
Zinc	5	mg/kg	-	32

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
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Nov 06, 2013	14 Day
- Method: E004 Petroleum Hydrocarbons (TPH)			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Nov 06, 2013	14 Day
- Method: LM-LTM-ORG2010			
BTEX	Sydney	Nov 05, 2013	14 Day
- Method: E029/E016 BTEX			
Polycyclic Aromatic Hydrocarbons	Sydney	Nov 06, 2013	14 Day
- Method: E007 Polyaromatic Hydrocarbons (PAH)			
Organochlorine Pesticides	Sydney	Nov 06, 2013	14 Day
- Method: E013 Organochlorine Pesticides (OC)			
Polychlorinated Biphenyls (PCB)	Sydney	Nov 06, 2013	28 Day
- Method: E013 Polychlorinated Biphenyls (PCB)			
TRH after Silica Cleanup (NEPM) *	Sydney	Nov 05, 2013	14 Day
- Method: LM-LTM-ORG2010			
Chloride	Sydney	Nov 06, 2013	28 Day
- Method: E033 /E045 /E047 Chloride			
Nitrate (as N)	Sydney	Nov 06, 2013	28 Day
- Method: E037 /E051 Nitrate as N			
Nitrite (as N)	Sydney	Nov 06, 2013	28 Day
- Method: E037 /E051 Nitrite as N			
Organic Matter %	Melbourne	Nov 07, 2013	5 Day
- Method: APHA 2540E Fixed and Volatile Solids Ignited at 550C			
pH (1:5 Aqueous extract)	Sydney	Nov 06, 2013	7 Day
- Method: E018.2 pH			
Sulphate (as S)	Sydney	Nov 06, 2013	28 Day
- Method: E045 Sulphate			
Phosphorus	Sydney	Nov 05, 2013	180 Day
- Method: E020/E030 Metals			
Sulphur	Sydney	Nov 05, 2013	7 Day
- Method: E020/E030 Metals			
% Moisture	Sydney	Nov 05, 2013	28 Day
- Method: E005 Moisture Content			
Alkalinity	Sydney	Nov 07, 2013	0 Day
Total Nitrogen Set (as N)			
Nitrate & Nitrite (as N)	Sydney	Nov 06, 2013	28 Day
- Method: E037 /E051 NOx (as N)			
Total Kjeldahl Nitrogen (as N)	Sydney	Nov 06, 2013	28 Day
- Method: E039/E053 Unfiltered Total Kjeldahl Nitrogen as N			
Cation Exchange Capacity	Melbourne	Nov 06, 2013	28 Day
- Method: 15B1, 15B2, 15B3 Soil Chemical Methods			
- Method: Rayment and Lyons			
Metals M8	Sydney	Nov 05, 2013	28 Day
- Method: E022 Acid Extractable metals in Soils & E026 Mercury			
Heavy Metals	Sydney	Nov 05, 2013	180 Day
- Method: E022 Acid Extractable metals in Soils			
Petroleum Hydrocarbons Silica Cleanup (TPH)	Sydney	Nov 06, 2013	14 Day
- Method: E004 Petroleum Hydrocarbons Silica Cleanup (TPH)			

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 5:15 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	398440	**Due:**	Nov 11, 2013
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Michelle Delandro
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Phosphorus	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup (TPH)	Total Nitrogen Set (as N)	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
boratory where analysis is conducted																															
elbourne Laboratory - NATA Site # 1254 & 14271														X																X	
dney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X	X		X
isbane Laboratory - NATA Site # 20794																																
ternal Laboratory								X	X								X														
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																												
29 0.1-0.2	Nov 01, 2013		Soil	S13-No01465	X																	X	X	X	X	X			X		
29 0.4-0.5	Nov 01, 2013		Soil	S13-No01466						X																					
29 1.4-1.5	Nov 01, 2013		Soil	S13-No01467						X																					
29 1.9-2.0	Nov 01, 2013		Soil	S13-No01468		X																									
29 2.4-2.5	Nov 01, 2013		Soil	S13-No01469						X																					
29 2.9-3.0	Nov 01, 2013		Soil	S13-No01470	X						X			X	X															X	
003	Nov 01, 2013		Soil	S13-No01471		X																									
003A	Nov 01, 2013		Soil	S13-No01472		X																									
27 0.1-0.2	Nov 01, 2013		Soil	S13-No01473						X																					
27 0.4-0.5	Nov 01, 2013		Soil	S13-No01474	X																	X		X	X		X		X		X

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Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

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boratory where analysis is conducted																															
elbourne Laboratory - NATA Site # 1254 & 14271														X																X	
dney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X	X		X
isbane Laboratory - NATA Site # 20794																																
ternal Laboratory								X	X								X														
27 0.9-1.0	Nov 01, 2013		Soil	S13-No01475						X																						
27 2.4-2.5	Nov 01, 2013		Soil	S13-No01476						X																						
24 0.1-0.2	Nov 01, 2013		Soil	S13-No01477	X																			X								
27 0.4-0.5	Nov 01, 2013		Soil	S13-No01478						X																						
24 1.4-1.5	Nov 01, 2013		Soil	S13-No01479						X																						
24 2.4-2.5	Nov 01, 2013		Soil	S13-No01480						X																						
23 0.1-0.2	Nov 01, 2013		Soil	S13-No01481	X																	X	X	X	X	X			X			
32 0.1-0.2	Nov 01, 2013		Soil	S13-No01482						X																						
32 0.4-0.5	Nov 01, 2013		Soil	S13-No01483	X																			X								
32 0.9-1.0	Nov 01, 2013		Soil	S13-No01484						X																						
32 1.4-1.5	Nov 01, 2013		Soil	S13-No01485						X																						

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Client Job No.:	URBAN GROWTH 43008				

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boratory where analysis is conducted																															
elbourne Laboratory - NATA Site # 1254 & 14271														X																	X	
dney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X	X		X
isbane Laboratory - NATA Site # 20794																																
ternal Laboratory								X	X								X														
32 2.4-2.5	Nov 01, 2013		Soil	S13-No01486						X																						
32 3.4-3.5	Nov 01, 2013		Soil	S13-No01487						X																						
32 4.4-4.5	Nov 01, 2013		Soil	S13-No01488						X																						
32 5.4-5.5	Nov 01, 2013		Soil	S13-No01489						X																						
32 6.4-6.5	Nov 01, 2013		Soil	S13-No01490						X																						
32 6.9-7.0	Nov 01, 2013		Soil	S13-No01491				X	X								X															
32 7.9-8.0	Nov 01, 2013		Soil	S13-No01492	X		X					X	X			X		X	X	X								X				
32 9.9-10.0	Nov 01, 2013		Soil	S13-No01493						X																						
33 0.1-0.2	Nov 01, 2013		Soil	S13-No01494				X	X								X															
34 0.1-0.2	Nov 01, 2013		Soil	S13-No01495				X	X								X															
35 0.1-0.2	Nov 01, 2013		Soil	S13-No01496				X	X								X															

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boratory where analysis is conducted																															
elbourne Laboratory - NATA Site # 1254 & 14271														X																X	
dney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X	X		X
isbane Laboratory - NATA Site # 20794																																
ternal Laboratory								X	X								X														
217 0.4-0.5	Nov 01, 2013		Soil	S13-No01497						X																					
218 0.4-0.5	Nov 01, 2013		Soil	S13-No01498						X																					
NSATE 2	Nov 01, 2013		Water	S13-No01502																	X	X	X	X	X			X		
131029-2	Oct 29, 2013		Soil	S13-No01503																	X			X						
131029-2	Oct 29, 2013		Soil	S13-No01504																	X			X						
218 0.4-0.5	Oct 29, 2013		Soil	S13-No01505						X																					
229 0.9-1	Oct 29, 2013		Soil	S13-No01506						X																					
3004	Oct 29, 2013		Soil	S13-No01507	X																X	X	X	X	X			X		
LAB131029-	Oct 29, 2013		Soil	S13-No01508																	X			X						
234	Oct 29, 2013		Soil	S13-No01955						X																					

Eurofins | mgt Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

UNITS

mg/kg: milligrams per Kilogram

ug/l: micrograms per litre

ppb: Parts per billion

org/100ml: Organisms per 100 millilitres

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

mg/l: milligrams per litre

ppm: Parts per million

%: Percentage

NTU: Units

TERMS

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

QC - ACCEPTANCE CRITERIA

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

Results <10 times the LOR : No Limit

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

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

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

QC DATA GENERAL COMMENTS

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

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH C6-C10 less BTEX (F1)	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
d-BHC	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.2			0.2	Pass	
Toxaphene	mg/kg	< 1			1	Pass	
Method Blank							
Polychlorinated Biphenyls (PCB)							
Aroclor-1016	mg/kg	< 0.5			0.5	Pass	
Aroclor-1232	mg/kg	< 0.5			0.5	Pass	
Aroclor-1242	mg/kg	< 0.5			0.5	Pass	
Aroclor-1248	mg/kg	< 0.5			0.5	Pass	
Aroclor-1254	mg/kg	< 0.5			0.5	Pass	
Aroclor-1260	mg/kg	< 0.5			0.5	Pass	
Total PCB	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Chloride	mg/kg	< 10			10	Pass	
Nitrate (as N)	mg/kg	< 0.1			0.1	Pass	
Nitrite (as N)	mg/kg	< 0.1			0.1	Pass	
Sulphate (as S)	mg/kg	< 10			10	Pass	
Phosphorus	mg/kg	< 10			10	Pass	
Sulphur	mg/kg	< 100			100	Pass	
Method Blank							
Alkalinity							
Total Alkalinity (as CaCO3)	mg/kg	< 50			50	Pass	
Method Blank							
Total Nitrogen Set (as N)							
Nitrate & Nitrite (as N)	mg/kg	< 0.1			0.1	Pass	
Total Kjeldahl Nitrogen (as N)	mg/kg	< 10			10	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Iron	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.05			0.05	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	94			70-130	Pass	
TRH C10-C14	%	80			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	101			70-130	Pass	
Toluene	%	96			70-130	Pass	
Ethylbenzene	%	93			70-130	Pass	
m&p-Xylenes	%	91			70-130	Pass	
o-Xylene	%	93			70-130	Pass	
Xylenes - Total	%	92			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	98			70-130	Pass	
TRH C6-C10	%	95			70-130	Pass	
TRH >C10-C16	%	88			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	130			70-130	Pass	
Acenaphthylene	%	118			70-130	Pass	
Anthracene	%	124			70-130	Pass	
Benz(a)anthracene	%	124			70-130	Pass	
Benzo(a)pyrene	%	107			70-130	Pass	
Benzo(b&j)fluoranthene	%	75			70-130	Pass	
Benzo(g.h.i)perylene	%	108			70-130	Pass	
Benzo(k)fluoranthene	%	129			70-130	Pass	
Chrysene	%	120			70-130	Pass	
Dibenz(a.h)anthracene	%	107			70-130	Pass	
Fluoranthene	%	125			70-130	Pass	
Fluorene	%	122			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	109			70-130	Pass	
Naphthalene	%	126			70-130	Pass	
Phenanthrene	%	129			70-130	Pass	
Pyrene	%	130			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	102			70-130	Pass	
4.4'-DDD	%	111			70-130	Pass	
4.4'-DDE	%	105			70-130	Pass	
4.4'-DDT	%	106			70-130	Pass	
a-BHC	%	108			70-130	Pass	
Aldrin	%	109			70-130	Pass	
b-BHC	%	85			70-130	Pass	
d-BHC	%	92			70-130	Pass	
Dieldrin	%	104			70-130	Pass	
Endosulfan I	%	108			70-130	Pass	
Endosulfan II	%	95			70-130	Pass	
Endosulfan sulphate	%	72			70-130	Pass	
Endrin	%	111			70-130	Pass	
Endrin aldehyde	%	74			70-130	Pass	
Endrin ketone	%	88			70-130	Pass	
g-BHC (Lindane)	%	102			70-130	Pass	
Heptachlor	%	105			70-130	Pass	
Heptachlor epoxide	%	104			70-130	Pass	
Hexachlorobenzene	%	102			70-130	Pass	
Methoxychlor	%	98			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls (PCB)							
Aroclor-1260	%	96			70-130	Pass	
LCS - % Recovery							
Chloride	%	88			70-130	Pass	
Nitrate (as N)	%	79			70-130	Pass	
Nitrite (as N)	%	95			70-130	Pass	
Sulphate (as S)	%	90			70-130	Pass	
Phosphorus	%	90			70-130	Pass	
Sulphur	%	95			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
Alkalinity							
Total Alkalinity (as CaCO3)	%	97			70-130	Pass	
LCS - % Recovery							
Total Nitrogen Set (as N)							
Nitrate & Nitrite (as N)	%	87			70-130	Pass	
Total Kjeldahl Nitrogen (as N)	%	115			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	81			70-130	Pass	
Cadmium	%	82			70-130	Pass	
Chromium	%	87			70-130	Pass	
Copper	%	96			70-130	Pass	
Iron	%	105			70-130	Pass	
Lead	%	84			70-130	Pass	
Mercury	%	98			70-130	Pass	
Nickel	%	90			70-130	Pass	
Zinc	%	87			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S13-No01465	CP	%	88			70-130	Pass	
TRH C10-C14	S13-No01465	CP	%	84			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S13-No01465	CP	%	95			70-130	Pass	
Toluene	S13-No01465	CP	%	89			70-130	Pass	
Ethylbenzene	S13-No01465	CP	%	87			70-130	Pass	
m&p-Xylenes	S13-No01465	CP	%	85			70-130	Pass	
o-Xylene	S13-No01465	CP	%	88			70-130	Pass	
Xylenes - Total	S13-No01465	CP	%	86			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S13-No01465	CP	%	78			70-130	Pass	
TRH C6-C10	S13-No01465	CP	%	88			70-130	Pass	
TRH >C10-C16	S13-No01465	CP	%	89			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S13-No01465	CP	%	126			70-130	Pass	
Acenaphthylene	S13-No01465	CP	%	118			70-130	Pass	
Anthracene	S13-No01465	CP	%	111			70-130	Pass	
Benz(a)anthracene	S13-No01465	CP	%	102			70-130	Pass	
Benzo(a)pyrene	S13-No01465	CP	%	130			70-130	Pass	
Benzo(b&j)fluoranthene	S13-No01465	CP	%	95			70-130	Pass	
Benzo(g.h.i)perylene	S13-No01465	CP	%	130			70-130	Pass	
Benzo(k)fluoranthene	S13-No01465	CP	%	127			70-130	Pass	
Chrysene	S13-No01465	CP	%	125			70-130	Pass	
Dibenz(a.h)anthracene	S13-No01465	CP	%	130			70-130	Pass	
Fluoranthene	S13-No01465	CP	%	129			70-130	Pass	
Fluorene	S13-No01465	CP	%	128			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S13-No01465	CP	%	123			70-130	Pass	
Naphthalene	S13-No01465	CP	%	127			70-130	Pass	
Phenanthrene	S13-No01465	CP	%	119			70-130	Pass	
Pyrene	S13-No01465	CP	%	119			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S13-No00214	NCP	%	118			70-130	Pass	
4.4'-DDD	S13-No00214	NCP	%	126			70-130	Pass	
4.4'-DDE	S13-No00214	NCP	%	121			70-130	Pass	
4.4'-DDT	S13-No00214	NCP	%	113			70-130	Pass	
a-BHC	S13-No00214	NCP	%	122			70-130	Pass	
Aldrin	S13-No00214	NCP	%	122			70-130	Pass	
b-BHC	S13-No00214	NCP	%	87			70-130	Pass	
d-BHC	S13-No00214	NCP	%	94			70-130	Pass	
Dieldrin	S13-No00214	NCP	%	119			70-130	Pass	
Endosulfan I	S13-No00214	NCP	%	125			70-130	Pass	
Endosulfan II	S13-No00214	NCP	%	103			70-130	Pass	
Endosulfan sulphate	S13-No00214	NCP	%	72			70-130	Pass	
Endrin	S13-No00214	NCP	%	125			70-130	Pass	
Endrin aldehyde	S13-No00214	NCP	%	72			70-130	Pass	
Endrin ketone	S13-No00214	NCP	%	87			70-130	Pass	
g-BHC (Lindane)	S13-No00214	NCP	%	112			70-130	Pass	
Heptachlor	S13-No00214	NCP	%	122			70-130	Pass	
Heptachlor epoxide	S13-No00214	NCP	%	119			70-130	Pass	
Hexachlorobenzene	S13-No00214	NCP	%	120			70-130	Pass	
Methoxychlor	S13-No00214	NCP	%	90			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls (PCB)				Result 1					
Aroclor-1260	S13-No01465	CP	%	87			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S13-No01465	CP	%	79			70-130	Pass	
Cadmium	S13-No01465	CP	%	97			70-130	Pass	
Chromium	S13-No01465	CP	%	92			70-130	Pass	
Copper	S13-No01465	CP	%	110			70-130	Pass	
Lead	S13-No01465	CP	%	102			70-130	Pass	
Mercury	S13-No00597	NCP	%	98			70-130	Pass	
Nickel	S13-No01465	CP	%	92			70-130	Pass	
Zinc	S13-No01465	CP	%	103			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S13-No01465	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S13-No01465	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S13-No01465	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S13-No01465	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S13-No01465	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S13-No01465	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S13-No01465	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S13-No01465	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S13-No01465	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	S13-No01465	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S13-No01465	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S13-No01465	CP	mg/kg	< 20	< 20	<1	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C10 less BTEX (F1)	S13-No01465	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S13-No01465	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S13-No01465	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S13-No01465	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S13-No01465	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S13-No01465	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S13-No01465	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S13-No01465	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S13-No01465	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S13-No01465	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S13-No01465	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S13-No01465	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S13-No01465	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S13-No01465	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S13-No01465	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S13-No01465	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S13-No01465	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S13-No01465	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S13-No01465	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S13-No01465	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S13-No01465	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S13-No01465	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S13-No01465	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S13-No01465	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	S13-No01465	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S13-No01465	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	S13-No01465	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	S13-No01465	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S13-No01465	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S13-No01465	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S13-No01465	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S13-No01465	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S13-No01465	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S13-No01465	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S13-No01465	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	S13-No01465	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S13-No01465	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S13-No01465	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S13-No01465	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S13-No01465	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Toxaphene	S13-No01465	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls (PCB)				Result 1	Result 2	RPD			
Aroclor-1016	S13-No01465	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1232	S13-No01465	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1242	S13-No01465	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1248	S13-No01465	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1254	S13-No01465	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1260	S13-No01465	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S13-No01465	CP	mg/kg	6.0	5.1	17	30%	Pass	
Cadmium	S13-No01465	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S13-No01465	CP	mg/kg	8.4	7.2	15	30%	Pass	
Copper	S13-No01465	CP	mg/kg	16	15	4.0	30%	Pass	
Lead	S13-No01465	CP	mg/kg	10	9.4	11	30%	Pass	
Mercury	S13-No00597	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Nickel	S13-No01465	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S13-No01465	CP	mg/kg	34	28	18	30%	Pass	
Duplicate									
Cation Exchange Capacity				Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract at 25°C)	M13-No01902	NCP	uS/cm	110	110	1.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Nitrate (as N)	S13-No01399	NCP	mg/kg	1.7	1.7	<1	30%	Pass	
Nitrite (as N)	S13-No01399	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Phosphorus	S13-No03512	NCP	mg/kg	16	45	95	30%	Fail	Q15
Duplicate									
Total Nitrogen Set (as N)				Result 1	Result 2	RPD			
Nitrate & Nitrite (as N)	S13-No01399	NCP	mg/kg	1.7	1.7	<1	30%	Pass	

Comments

E.Coli/Coliforms/Salmonella analysed by ALS,

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	Yes

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q15	The RPD reported passes Eurofins | mgt's Acceptance Criteria as stipulated in SOP 05. Refer to Glossary Page of this report for further details

Authorised By

Jean Heng	Client Services
Bob Symons	Senior Analyst-Inorganic (NSW)
Emily Rosenberg	Senior Analyst-Metal (VIC)
Huong Le	Senior Analyst-Inorganic (VIC)
James Norford	Senior Analyst-Metal (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)
Ryan Hamilton	Senior Analyst-Volatile (NSW)

Dr. Bob Symons

Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

eurofins | mgt

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

Attention: **Thomas Harding**

Report **398440-W**
Client Reference URBAN GROWTH 43008
Received Date Nov 01, 2013

Client Sample ID			**RINSATE 2**
Sample Matrix			**Water**
Eurofins | mgt Sample No.			**S13-No01502**
Date Sampled			**Nov 01, 2013**
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons - 1999 NEPM Fractions			
TRH C6-C9	0.02	mg/L	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1
TRH C10-36 (Total)	0.1	mg/L	< 0.1
BTEX			
Benzene	0.001	mg/L	< 0.001
Toluene	0.001	mg/L	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002
o-Xylene	0.001	mg/L	< 0.001
Xylenes - Total	0.003	mg/L	< 0.003
4-Bromofluorobenzene (surr.)	1	%	86
Total Recoverable Hydrocarbons - 2013 NEPM Fractions			
Naphthalene[N02]	0.02	mg/L	< 0.02
TRH C6-C10	0.02	mg/L	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1
Polycyclic Aromatic Hydrocarbons			
Acenaphthene	0.001	mg/L	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001
Anthracene	0.001	mg/L	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001
Chrysene	0.001	mg/L	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001
Fluoranthene	0.001	mg/L	< 0.001
Fluorene	0.001	mg/L	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001
Naphthalene	0.001	mg/L	< 0.001

Client Sample ID			RINSATE 2
Sample Matrix			Water
Eurofins | mgt Sample No.			S13-No01502
Date Sampled			Nov 01, 2013
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
Phenanthrene	0.001	mg/L	< 0.001
Pyrene	0.001	mg/L	< 0.001
Total PAH	0.001	mg/L	< 0.001
2-Fluorobiphenyl (surr.)	1	%	98
p-Terphenyl-d14 (surr.)	1	%	115
Organochlorine Pesticides			
Chlordanes - Total	0.001	mg/L	< 0.001
4.4'-DDD	0.0001	mg/L	< 0.0001
4.4'-DDE	0.0001	mg/L	< 0.0001
4.4'-DDT	0.0001	mg/L	< 0.0001
a-BHC	0.0001	mg/L	< 0.0001
Aldrin	0.0001	mg/L	< 0.0001
b-BHC	0.0001	mg/L	< 0.0001
d-BHC	0.0001	mg/L	< 0.0001
Dieldrin	0.0001	mg/L	< 0.0001
Endosulfan I	0.0001	mg/L	< 0.0001
Endosulfan II	0.0001	mg/L	< 0.0001
Endosulfan sulphate	0.0001	mg/L	< 0.0001
Endrin	0.0001	mg/L	< 0.0001
Endrin aldehyde	0.0001	mg/L	< 0.0001
Endrin ketone	0.0001	mg/L	< 0.0001
g-BHC (Lindane)	0.0001	mg/L	< 0.0001
Heptachlor	0.0001	mg/L	< 0.0001
Heptachlor epoxide	0.0001	mg/L	< 0.0001
Hexachlorobenzene	0.0001	mg/L	< 0.0001
Methoxychlor	0.0001	mg/L	< 0.0001
Toxaphene	0.01	mg/L	< 0.01
Dibutylchlorendate (surr.)	1	%	73
Tetrachloro-m-xylene (surr.)	1	%	88
Polychlorinated Biphenyls (PCB)			
Aroclor-1016	0.005	mg/L	< 0.005
Aroclor-1232	0.005	mg/L	< 0.005
Aroclor-1242	0.005	mg/L	< 0.005
Aroclor-1248	0.005	mg/L	< 0.005
Aroclor-1254	0.005	mg/L	< 0.005
Aroclor-1260	0.005	mg/L	< 0.005
Total PCB	0.005	mg/L	< 0.005
Dibutylchlorendate (surr.)	1	%	73
Heavy Metals			
Arsenic	0.005	mg/L	< 0.005
Cadmium	0.0005	mg/L	< 0.0005
Chromium	0.005	mg/L	< 0.005
Copper	0.005	mg/L	< 0.005
Lead	0.005	mg/L	< 0.005
Mercury	0.0001	mg/L	< 0.0001
Nickel	0.005	mg/L	< 0.005
Zinc	0.005	mg/L	< 0.005

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Nov 05, 2013	7 Day
- Method: E004 Petroleum Hydrocarbons (TPH)			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Nov 05, 2013	7 Day
- Method: LM-LTM-ORG2010			
BTEX	Sydney	Nov 04, 2013	14 Day
- Method: E029/E016 BTEX			
Polycyclic Aromatic Hydrocarbons	Sydney	Nov 05, 2013	7 Day
- Method: E007 Polyaromatic Hydrocarbons (PAH)			
Organochlorine Pesticides	Sydney	Nov 05, 2013	7 Day
- Method: E013 Organochlorine Pesticides (OC)			
Polychlorinated Biphenyls (PCB)	Sydney	Nov 05, 2013	7 Day
- Method: E013 Polychlorinated Biphenyls (PCB)			
Metals M8	Sydney	Nov 04, 2013	28 Day
- Method: E022/E030 Unfiltered Metals in Water & E026 Mercury			

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 5:15 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	398440	**Due:**	Nov 11, 2013
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Michelle Delandro
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Phosphorus	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup (TPH)	Total Nitrogen Set (as N)	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
boratory where analysis is conducted																															
elbourne Laboratory - NATA Site # 1254 & 14271														X																X	
dney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X	X		X
isbane Laboratory - NATA Site # 20794																																
ternal Laboratory								X	X								X														
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																												
29 0.1-0.2	Nov 01, 2013		Soil	S13-No01465	X																	X	X	X	X	X			X		
29 0.4-0.5	Nov 01, 2013		Soil	S13-No01466						X																					
29 1.4-1.5	Nov 01, 2013		Soil	S13-No01467						X																					
29 1.9-2.0	Nov 01, 2013		Soil	S13-No01468		X																									
29 2.4-2.5	Nov 01, 2013		Soil	S13-No01469						X																					
29 2.9-3.0	Nov 01, 2013		Soil	S13-No01470	X						X			X	X															X	
003	Nov 01, 2013		Soil	S13-No01471		X																									
003A	Nov 01, 2013		Soil	S13-No01472		X																									
27 0.1-0.2	Nov 01, 2013		Soil	S13-No01473						X																					
27 0.4-0.5	Nov 01, 2013		Soil	S13-No01474	X																	X		X	X		X		X		X

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 5:15 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:** **Phone:** **Fax:**	398440 02 8245 0300	**Due:** **Priority:** **Contact Name:**	Nov 11, 2013 5 Day Michelle Delandro
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Phosphorus	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup (TPH)	Total Nitrogen Set (as N)	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
boratory where analysis is conducted																															
elbourne Laboratory - NATA Site # 1254 & 14271														X																X	
dney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X	X		X
isbane Laboratory - NATA Site # 20794																																
ternal Laboratory								X	X								X														
27 0.9-1.0	Nov 01, 2013		Soil	S13-No01475						X																						
27 2.4-2.5	Nov 01, 2013		Soil	S13-No01476						X																						
24 0.1-0.2	Nov 01, 2013		Soil	S13-No01477	X																			X								
27 0.4-0.5	Nov 01, 2013		Soil	S13-No01478						X																						
24 1.4-1.5	Nov 01, 2013		Soil	S13-No01479						X																						
24 2.4-2.5	Nov 01, 2013		Soil	S13-No01480						X																						
23 0.1-0.2	Nov 01, 2013		Soil	S13-No01481	X																	X	X	X	X	X			X			
32 0.1-0.2	Nov 01, 2013		Soil	S13-No01482						X																						
32 0.4-0.5	Nov 01, 2013		Soil	S13-No01483	X																			X								
32 0.9-1.0	Nov 01, 2013		Soil	S13-No01484						X																						
32 1.4-1.5	Nov 01, 2013		Soil	S13-No01485						X																						

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 5:15 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	398440	**Due:**	Nov 11, 2013
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Michelle Delandro
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Phosphorus	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup (TPH)	Total Nitrogen Set (as N)	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
boratory where analysis is conducted																															
elbourne Laboratory - NATA Site # 1254 & 14271														X																	X	
dney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X	X		X
isbane Laboratory - NATA Site # 20794																																
ternal Laboratory								X	X								X														
32 2.4-2.5	Nov 01, 2013		Soil	S13-No01486						X																						
32 3.4-3.5	Nov 01, 2013		Soil	S13-No01487						X																						
32 4.4-4.5	Nov 01, 2013		Soil	S13-No01488						X																						
32 5.4-5.5	Nov 01, 2013		Soil	S13-No01489						X																						
32 6.4-6.5	Nov 01, 2013		Soil	S13-No01490						X																						
32 6.9-7.0	Nov 01, 2013		Soil	S13-No01491				X	X								X															
32 7.9-8.0	Nov 01, 2013		Soil	S13-No01492	X		X					X	X			X		X	X	X								X				
32 9.9-10.0	Nov 01, 2013		Soil	S13-No01493						X																						
33 0.1-0.2	Nov 01, 2013		Soil	S13-No01494				X	X								X															
34 0.1-0.2	Nov 01, 2013		Soil	S13-No01495				X	X								X															
35 0.1-0.2	Nov 01, 2013		Soil	S13-No01496				X	X								X															

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Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 5:15 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	398440	**Due:**	Nov 11, 2013
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Michelle Delandro
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	CANCELLED	Chloride	E.Coli	Faecal Coliforms	HOLD	Iron	Nitrate (as N)	Nitrite (as N)	Organic Matter %	pH (1:5 Aqueous extract)	Phosphorus	Salmonella	Sulphate (as S)	Sulphur	Total Alkalinity (as CaCO3)	TRH C6-C9	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Petroleum Hydrocarbons Silica Cleanup (TPH)	Total Nitrogen Set (as N)	Total Recoverable Hydrocarbons	Cation Exchange Capacity	TRH after Silica Cleanup (NEPM) *
boratory where analysis is conducted																															
elbourne Laboratory - NATA Site # 1254 & 14271														X																X	
dney Laboratory - NATA Site # 18217					X	X	X			X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X	X		X
isbane Laboratory - NATA Site # 20794																																
ternal Laboratory								X	X								X														
217 0.4-0.5	Nov 01, 2013		Soil	S13-No01497						X																					
218 0.4-0.5	Nov 01, 2013		Soil	S13-No01498						X																					
NSATE 2	Nov 01, 2013		Water	S13-No01502																	X	X	X	X	X			X		
131029-2	Oct 29, 2013		Soil	S13-No01503																	X			X						
131029-2	Oct 29, 2013		Soil	S13-No01504																	X			X						
218 0.4-0.5	Oct 29, 2013		Soil	S13-No01505						X																					
229 0.9-1	Oct 29, 2013		Soil	S13-No01506						X																					
3004	Oct 29, 2013		Soil	S13-No01507	X																X	X	X	X	X			X		
LAB131029-	Oct 29, 2013		Soil	S13-No01508																	X			X						
234	Oct 29, 2013		Soil	S13-No01955						X																					

Eurofins | mgt Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

UNITS

mg/kg: milligrams per Kilogram

ug/l: micrograms per litre

ppb: Parts per billion

org/100ml: Organisms per 100 millilitres

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

mg/l: milligrams per litre

ppm: Parts per million

%: Percentage

NTU: Units

TERMS

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

QC - ACCEPTANCE CRITERIA

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

Results <10 times the LOR : No Limit

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

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

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

QC DATA GENERAL COMMENTS

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

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total	mg/L	< 0.003			0.003	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.02			0.02	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH C6-C10 less BTEX (F1)	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/L	< 0.001			0.001	Pass	
4.4'-DDD	mg/L	< 0.0001			0.0001	Pass	
4.4'-DDE	mg/L	< 0.0001			0.0001	Pass	
4.4'-DDT	mg/L	< 0.0001			0.0001	Pass	
a-BHC	mg/L	< 0.0001			0.0001	Pass	
Aldrin	mg/L	< 0.0001			0.0001	Pass	
b-BHC	mg/L	< 0.0001			0.0001	Pass	
d-BHC	mg/L	< 0.0001			0.0001	Pass	
Dieldrin	mg/L	< 0.0001			0.0001	Pass	
Endosulfan I	mg/L	< 0.0001			0.0001	Pass	
Endosulfan II	mg/L	< 0.0001			0.0001	Pass	
Endosulfan sulphate	mg/L	< 0.0001			0.0001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin	mg/L	< 0.0001			0.0001	Pass	
Endrin aldehyde	mg/L	< 0.0001			0.0001	Pass	
Endrin ketone	mg/L	< 0.0001			0.0001	Pass	
g-BHC (Lindane)	mg/L	< 0.0001			0.0001	Pass	
Heptachlor	mg/L	< 0.0001			0.0001	Pass	
Heptachlor epoxide	mg/L	< 0.0001			0.0001	Pass	
Hexachlorobenzene	mg/L	< 0.0001			0.0001	Pass	
Methoxychlor	mg/L	< 0.0001			0.0001	Pass	
Toxaphene	mg/L	< 0.01			0.01	Pass	
Method Blank							
Polychlorinated Biphenyls (PCB)							
Aroclor-1016	mg/L	< 0.005			0.005	Pass	
Aroclor-1232	mg/L	< 0.005			0.005	Pass	
Aroclor-1242	mg/L	< 0.005			0.005	Pass	
Aroclor-1248	mg/L	< 0.005			0.005	Pass	
Aroclor-1254	mg/L	< 0.005			0.005	Pass	
Aroclor-1260	mg/L	< 0.005			0.005	Pass	
Total PCB	mg/L	< 0.005			0.005	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/L	< 0.005			0.005	Pass	
Cadmium	mg/L	< 0.0005			0.0005	Pass	
Chromium	mg/L	< 0.005			0.005	Pass	
Copper	mg/L	< 0.005			0.005	Pass	
Lead	mg/L	< 0.005			0.005	Pass	
Mercury	mg/L	< 0.0001			0.0001	Pass	
Nickel	mg/L	< 0.005			0.005	Pass	
Zinc	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	97			70-130	Pass	
TRH C10-C14	%	90			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	103			70-130	Pass	
Toluene	%	95			70-130	Pass	
Ethylbenzene	%	95			70-130	Pass	
m&p-Xylenes	%	97			70-130	Pass	
o-Xylene	%	96			70-130	Pass	
Xylenes - Total	%	97			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	106			70-130	Pass	
TRH C6-C10	%	91			70-130	Pass	
TRH >C10-C16	%	101			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	71			70-130	Pass	
Acenaphthylene	%	70			70-130	Pass	
Anthracene	%	89			70-130	Pass	
Benz(a)anthracene	%	79			70-130	Pass	
Benzo(a)pyrene	%	73			70-130	Pass	
Benzo(b&j)fluoranthene	%	71			70-130	Pass	
Benzo(g.h.i)perylene	%	80			70-130	Pass	
Benzo(k)fluoranthene	%	77			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Chrysene	%	75			70-130	Pass	
Dibenz(a.h)anthracene	%	73			70-130	Pass	
Fluoranthene	%	90			70-130	Pass	
Fluorene	%	71			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	70			70-130	Pass	
Naphthalene	%	75			70-130	Pass	
Phenanthrene	%	93			70-130	Pass	
Pyrene	%	92			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	100			70-130	Pass	
4.4'-DDD	%	100			70-130	Pass	
4.4'-DDE	%	100			70-130	Pass	
4.4'-DDT	%	100			70-130	Pass	
a-BHC	%	100			70-130	Pass	
Aldrin	%	100			70-130	Pass	
b-BHC	%	100			70-130	Pass	
d-BHC	%	100			70-130	Pass	
Dieldrin	%	110			70-130	Pass	
Endosulfan I	%	100			70-130	Pass	
Endosulfan II	%	110			70-130	Pass	
Endosulfan sulphate	%	110			70-130	Pass	
Endrin	%	110			70-130	Pass	
Endrin aldehyde	%	100			70-130	Pass	
Endrin ketone	%	110			70-130	Pass	
g-BHC (Lindane)	%	100			70-130	Pass	
Heptachlor	%	100			70-130	Pass	
Heptachlor epoxide	%	100			70-130	Pass	
Hexachlorobenzene	%	100			70-130	Pass	
Methoxychlor	%	120			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls (PCB)							
Aroclor-1260	%	115			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	98			70-130	Pass	
Cadmium	%	104			70-130	Pass	
Chromium	%	104			70-130	Pass	
Copper	%	106			70-130	Pass	
Lead	%	117			70-130	Pass	
Mercury	%	92			70-130	Pass	
Nickel	%	99			70-130	Pass	
Zinc	%	99			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S13-No01533	NCP	%	95			70-130	Pass	
TRH C10-C14	S13-No01217	NCP	%	98			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S13-No01533	NCP	%	104			70-130	Pass	
Toluene	S13-No01533	NCP	%	97			70-130	Pass	
Ethylbenzene	S13-No01533	NCP	%	95			70-130	Pass	
m&p-Xylenes	S13-No01533	NCP	%	98			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
o-Xylene	S13-No01533	NCP	%	97			70-130	Pass	
Xylenes - Total	S13-No01533	NCP	%	97			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S13-No01533	NCP	%	107			70-130	Pass	
TRH C6-C10	S13-No01533	NCP	%	87			70-130	Pass	
TRH >C10-C16	S13-No01217	NCP	%	111			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S13-Oc24820	NCP	%	104			70-130	Pass	
Acenaphthylene	S13-Oc24820	NCP	%	103			70-130	Pass	
Anthracene	S13-Oc24820	NCP	%	95			70-130	Pass	
Benz(a)anthracene	S13-Oc24820	NCP	%	109			70-130	Pass	
Benzo(a)pyrene	S13-Oc24820	NCP	%	96			70-130	Pass	
Benzo(b&j)fluoranthene	S13-Oc24820	NCP	%	116			70-130	Pass	
Benzo(g.h.i)perylene	S13-Oc24820	NCP	%	94			70-130	Pass	
Benzo(k)fluoranthene	S13-Oc24820	NCP	%	105			70-130	Pass	
Chrysene	S13-Oc24820	NCP	%	103			70-130	Pass	
Dibenz(a.h)anthracene	S13-Oc24820	NCP	%	85			70-130	Pass	
Fluoranthene	S13-Oc24820	NCP	%	114			70-130	Pass	
Fluorene	S13-Oc24820	NCP	%	107			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S13-Oc24820	NCP	%	95			70-130	Pass	
Naphthalene	S13-Oc24820	NCP	%	104			70-130	Pass	
Phenanthrene	S13-Oc24820	NCP	%	110			70-130	Pass	
Pyrene	S13-Oc24820	NCP	%	113			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M13-Oc23976	NCP	%	108			70-130	Pass	
Cadmium	M13-Oc23976	NCP	%	102			70-130	Pass	
Chromium	M13-Oc23976	NCP	%	102			70-130	Pass	
Copper	M13-Oc23976	NCP	%	91			70-130	Pass	
Lead	M13-Oc23976	NCP	%	99			70-130	Pass	
Mercury	M13-Oc23976	NCP	%	87			70-130	Pass	
Nickel	M13-Oc23976	NCP	%	93			70-130	Pass	
Zinc	M13-Oc23976	NCP	%	86			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S13-No01520	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C10-C14	S13-No01216	NCP	mg/L	0.43	0.41	5.0	30%	Pass	
TRH C15-C28	S13-No01216	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36	S13-No01216	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S13-No01520	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S13-No01520	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S13-No01520	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S13-No01520	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S13-No01520	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total	S13-No01520	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S13-No01520	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C6-C10	S13-No01520	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C10 less BTEX (F1)	S13-No01520	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH >C10-C16	S13-No01216	NCP	mg/L	0.50	0.47	6.0	30%	Pass	
TRH >C16-C34	S13-No01216	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C34-C40	S13-No01216	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Acenaphthylene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benz(a)anthracene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(b&j)fluoranthene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(g.h.i)perylene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(k)fluoranthene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a.h)anthracene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Phenanthrene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Pyrene	S13-Oc24819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M13-Oc23975	NCP	mg/L	0.011	0.011	4.0	30%	Pass	
Cadmium	M13-Oc23975	NCP	mg/L	< 0.0005	< 0.0005	<1	30%	Pass	
Chromium	M13-Oc23975	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Copper	M13-Oc23975	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Lead	M13-Oc23975	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Mercury	M13-Oc23975	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	M13-No00010	NCP	mg/L	0.37	0.38	3.0	30%	Pass	
Zinc	M13-Oc23975	NCP	mg/L	0.0080	0.0070	16	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	Yes

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised By

Jean Heng	Client Services
James Norford	Senior Analyst-Metal (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)
Ryan Hamilton	Senior Analyst-Volatile (NSW)

Dr. Bob Symons

Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

399026

From: Thomas Harding [mailto:THarding@jbsg.com.au]
Sent: Thursday, 7 November 2013 3:09 PM
To: Jean Heng
Cc: Michelle Delandro
Subject: Urban Growth

Jean,

Can I include the following samples on analysis for the Urban Growth Ed Park project please:

Lab report: 398440

Samples:

TP17 0.4-0.5 – Metals, TPH/BTEX, TPH aliphatic/aromatic spilt, TPH Silca gel clean up, Biologicals, nutrients
TP18 0.4-0.5 - Metals, TPH/BTEX, TPH aliphatic/aromatic spilt, TPH Silca gel clean up, Biologicals, nutrients

Thank you

Tom

eurofins | mgt

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Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
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16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Sample Receipt Advice

Company name: **JBS & G (NSW & WA) Pty Ltd**

Contact name: Thomas Harding
Client job number: ADDITIONAL : URBAN GROWTH 43008
COC number: Not provided
Turn around time: 6 Day
Date/Time received: Nov 11, 2013 9:20 AM
Eurofins | mgt reference: **399026**

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 : 9.5 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.

☑ Organic samples had Teflon liners.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Notes

Additional from report 398440 | Microbiological analysis outside of holding time | Microbiological analysis conducted at Eurofins | mgt Melbourne

Contact notes

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

Jean Heng on Phone : (+61) (2) 9900 8400 or by e.mail: JeanHeng@eurofins.com.au

Results will be delivered electronically via e.mail to Thomas Harding - tharding@jbsg.com.au.

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 11, 2013 9:20 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:** **Phone:** **Fax:**	399026 02 8245 0300	**Due:** **Priority:** **Contact Name:**	Nov 18, 2013 5 Day Thomas Harding
Client Job No.:	ADDITIONAL : URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	Chloride	E.coli	Nitrate (as N)	Nitrite (as N)	Phosphorus	Salmonella	Salmonella Volume/Mass Tested	Sulphate (as S)	Sulphur	Thermotolerant Coliforms	Total Alkalinity (as CaCO3)	Metals M8	BTEX	Petroleum Hydrocarbons Silica Cleanup (TPH)	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	TRH after Silica Cleanup (NEPM) *
laboratory where analysis is conducted																							
elbourne Laboratory - NATA Site # 1254 & 14271							X				X	X			X								
ydney Laboratory - NATA Site # 18217					X	X		X	X	X			X	X		X	X	X	X	X	X	X	X
risbane Laboratory - NATA Site # 20794																							
xternal Laboratory																							
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																			
217 0.4-0.5	Nov 01, 2013		Soil	S13-No04730	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
218 0.4-0.5	Nov 01, 2013		Soil	S13-No04731	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X

eurofins | mgt

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

Attention: **Thomas Harding**

Report **399026-S**
Client Reference ADDITIONAL : URBAN GROWTH 43008
Received Date Nov 07, 2013

Client Sample ID			[M01]**TP17 0.4-0.5**	[M01]**TP18 0.4-0.5**
Sample Matrix			**Soil**	**Soil**
Eurofins | mgt Sample No.			**S13-No04730**	**S13-No04731**
Date Sampled			**Nov 01, 2013**	**Nov 01, 2013**
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				
TRH C6-C9	20	mg/kg	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	< 50
BTEX				
Benzene	0.1	mg/kg	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	119	115
Aromatic & Aliphatic (TRH) - NP				
TRH >C35 Aromatic	200	mg/kg	< 200	< 200
TRH >C35 Aliphatic	1000	mg/kg	< 1000	< 1000
TRH C10-C15 Aliphatic	500	mg/kg	< 500	< 500
TRH C10-C15 Aromatic	50	mg/kg	< 50	< 50
TRH C16-C35 Aliphatic	1000	mg/kg	< 1000	< 1000
TRH C16-C35 Aromatic	50	mg/kg	< 50	< 50
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100
Petroleum Hydrocarbons Silica Cleanup (TPH)				
TRH C10-C14 after Silica Cleanup (TPH)	50	mg/kg	< 50	< 50
TRH C15-C28 after Silica Cleanup (TPH)	100	mg/kg	< 100	< 100
TRH C29-C36 after Silica Cleanup (TPH)	100	mg/kg	< 100	< 100
TRH after Silica Cleanup (NEPM) *				
TRH >C10-C16 after Silica Cleanup	50	mg/kg	< 50	< 50
TRH >C16-C34 after Silica Cleanup	100	mg/kg	< 100	< 100
TRH >C34-C40 after Silica Cleanup	100	mg/kg	< 100	< 100

Client Sample ID			[M01]TP17 0.4-0.5	[M01]TP18 0.4-0.5
Sample Matrix			Soil	Soil
Eurofins | mgt Sample No.			S13-No04730	S13-No04731
Date Sampled			Nov 01, 2013	Nov 01, 2013
Test/Reference	LOR	Unit		
Chloride	10	mg/kg	< 10	< 10
Nitrate (as N)	0.1	mg/kg	0.2	1.9
Nitrite (as N)	0.1	mg/kg	< 0.1	< 0.1
Sulphate (as S)	10	mg/kg	< 10	< 10
Phosphorus	10	mg/kg	1600	2400
Sulphur	100	mg/kg	1100	480
E.coli	1	MPN/g	<1	<1
Salmonella			[M10]Not Detected	[M10]Not Detected
Salmonella Volume/Mass Tested		g	25	25
Thermotolerant Coliforms	-	MPN/g	[M10]<1	[M10]<1
% Moisture	0.1	%	1.9	1.4
Alkalinity				
Total Alkalinity (as CaCO3)	50	mg/kg	< 50	< 50
Total Nitrogen Set (as N)				
Nitrate & Nitrite (as N)	0.1	mg/kg	0.2	2.0
Total Kjeldahl Nitrogen (as N)	10	mg/kg	110	270
Total Nitrogen (as N)	10	mg/kg	110	270
Heavy Metals				
Arsenic	2	mg/kg	< 2	2.1
Cadmium	0.4	mg/kg	< 0.4	< 0.4
Chromium	5	mg/kg	6.3	20
Copper	5	mg/kg	91	90
Lead	5	mg/kg	< 5	< 5
Mercury	0.05	mg/kg	< 0.05	< 0.05
Nickel	5	mg/kg	33	60
Zinc	5	mg/kg	54	78

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
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Nov 13, 2013	14 Day
- Method: E004 Petroleum Hydrocarbons (TPH)			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Nov 13, 2013	14 Day
- Method: LM-LTM-ORG2010			
BTEX	Sydney	Nov 13, 2013	14 Day
- Method: E029/E016 BTEX			
Aromatic & Aliphatic (TRH) - NP	Sydney	Nov 13, 2013	14 Day
- Method: E012 Aromatic & Aliphatic (TPH)			
TRH after Silica Cleanup (NEPM) *	Sydney	Nov 13, 2013	14 Day
- Method: LM-LTM-ORG2010			
Chloride	Sydney	Nov 14, 2013	28 Day
- Method: E033 /E045 /E047 Chloride			
Nitrate (as N)	Sydney	Nov 14, 2013	28 Day
- Method: E037 /E051 Nitrate as N			
Nitrite (as N)	Sydney	Nov 14, 2013	28 Day
- Method: E037 /E051 Nitrite as N			
Sulphate (as S)	Sydney	Nov 14, 2013	28 Day
- Method: E045 Sulphate			
Phosphorus	Sydney	Nov 13, 2013	180 Day
- Method: E020/E030 Metals			
Sulphur	Sydney	Nov 13, 2013	7 Day
- Method: E020/E030 Metals			
E.coli	Melbourne	Nov 13, 2013	72 Hour
- Method: 6621: E.coli in Soil by MPN			
Salmonella	Melbourne	Nov 13, 2013	72 Hour
Thermotolerant Coliforms	Melbourne	Nov 13, 2013	72 Hour
- Method: Inhouse: Thermotolerant Coliforms in Soil by MPN*			
% Moisture	Sydney	Nov 13, 2013	28 Day
- Method: E005 Moisture Content			
Alkalinity	Sydney	Nov 15, 2013	0 Day
Total Nitrogen Set (as N)			
Nitrate & Nitrite (as N)	Sydney	Nov 14, 2013	28 Day
- Method: E037 /E051 NOx (as N)			
Total Kjeldahl Nitrogen (as N)	Sydney	Nov 14, 2013	28 Day
- Method: E039/E053 Unfiltered Total Kjeldahl Nitrogen as N			
Metals M8	Sydney	Nov 13, 2013	28 Day
- Method: E022 Acid Extractable metals in Soils & E026 Mercury			
Petroleum Hydrocarbons Silica Cleanup (TPH)	Sydney	Nov 13, 2013	14 Day
- Method: E004 Petroleum Hydrocarbons Silica Cleanup (TPH)			

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 11, 2013 9:20 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:** **Phone:** **Fax:**	399026 02 8245 0300	**Due:** **Priority:** **Contact Name:**	Nov 18, 2013 5 Day Thomas Harding
Client Job No.:	ADDITIONAL : URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	Chloride	E.coli	Nitrate (as N)	Nitrite (as N)	Phosphorus	Salmonella	Salmonella Volume/Mass Tested	Sulphate (as S)	Sulphur	Thermotolerant Coliforms	Total Alkalinity (as CaCO3)	Metals M8	BTEX	Petroleum Hydrocarbons Silica Cleanup (TPH)	Total Nitrogen Set (as N)	Aromatic & Aliphatic (TRH) - NP	Total Recoverable Hydrocarbons	TRH after Silica Cleanup (NEPM) *
laboratory where analysis is conducted																							
elbourne Laboratory - NATA Site # 1254 & 14271							X				X	X			X								
ydney Laboratory - NATA Site # 18217					X	X		X	X	X			X	X		X	X	X	X	X	X	X	X
risbane Laboratory - NATA Site # 20794																							
xternal Laboratory																							
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																			
217 0.4-0.5	Nov 01, 2013		Soil	S13-No04730	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
218 0.4-0.5	Nov 01, 2013		Soil	S13-No04731	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

UNITS

mg/kg: milligrams per Kilogram

ug/l: micrograms per litre

ppb: Parts per billion

org/100ml: Organisms per 100 millilitres

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

mg/l: milligrams per litre

ppm: Parts per million

%: Percentage

NTU: Units

TERMS

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

QC - ACCEPTANCE CRITERIA

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

Results <10 times the LOR : No Limit

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

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

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

QC DATA GENERAL COMMENTS

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

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH C6-C10 less BTEX (F1)	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Petroleum Hydrocarbons Silica Cleanup (TPH)							
TRH C10-C14 after Silica Cleanup (TPH)	mg/kg	< 50			50	Pass	
TRH C15-C28 after Silica Cleanup (TPH)	mg/kg	< 100			100	Pass	
TRH C29-C36 after Silica Cleanup (TPH)	mg/kg	< 100			100	Pass	
Method Blank							
TRH after Silica Cleanup (NEPM) *							
TRH >C10-C16 after Silica Cleanup	mg/kg	< 50			50	Pass	
TRH >C16-C34 after Silica Cleanup	mg/kg	< 100			100	Pass	
TRH >C34-C40 after Silica Cleanup	mg/kg	< 100			100	Pass	
Method Blank							
Chloride	mg/kg	< 10			10	Pass	
Nitrate (as N)	mg/kg	< 0.1			0.1	Pass	
Nitrite (as N)	mg/kg	< 0.1			0.1	Pass	
Sulphate (as S)	mg/kg	< 10			10	Pass	
Phosphorus	mg/kg	< 10			10	Pass	
Sulphur	mg/kg	< 100			100	Pass	
Method Blank							
Total Nitrogen Set (as N)							
Nitrate & Nitrite (as N)	mg/kg	< 0.1			0.1	Pass	
Total Kjeldahl Nitrogen (as N)	mg/kg	< 10			10	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.05			0.05	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	86			70-130	Pass	
TRH C10-C14	%	76			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	106			70-130	Pass	
Toluene	%	95			70-130	Pass	
Ethylbenzene	%	91			70-130	Pass	
m&p-Xylenes	%	90			70-130	Pass	
o-Xylene	%	91			70-130	Pass	
Xylenes - Total	%	91			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	87			70-130	Pass	
TRH C6-C10	%	96			70-130	Pass	
TRH >C10-C16	%	82			70-130	Pass	
LCS - % Recovery							
Petroleum Hydrocarbons Silica Cleanup (TPH)							
TRH C10-C14 after Silica Cleanup (TPH)	%	73			70-130	Pass	
LCS - % Recovery							
TRH after Silica Cleanup (NEPM) *							
TRH >C10-C16 after Silica Cleanup	%	81			70-130	Pass	
LCS - % Recovery							
Chloride	%	108			70-130	Pass	
Nitrate (as N)	%	71			70-130	Pass	
Nitrite (as N)	%	97			70-130	Pass	
Sulphate (as S)	%	105			70-130	Pass	
Phosphorus	%	80			70-130	Pass	
Sulphur	%	87			70-130	Pass	
LCS - % Recovery							
Total Nitrogen Set (as N)							
Nitrate & Nitrite (as N)	%	84			70-130	Pass	
Total Kjeldahl Nitrogen (as N)	%	110			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	85			70-130	Pass	
Cadmium	%	85			70-130	Pass	
Chromium	%	90			70-130	Pass	
Copper	%	93			70-130	Pass	
Lead	%	95			70-130	Pass	
Mercury	%	103			70-130	Pass	
Nickel	%	93			70-130	Pass	
Zinc	%	95			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S13-No04351	NCP	%	87			70-130	Pass	
TRH C10-C14	S13-No05708	NCP	%	76			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S13-No04351	NCP	%	105			70-130	Pass	
Toluene	S13-No04351	NCP	%	94			70-130	Pass	
Ethylbenzene	S13-No04351	NCP	%	90			70-130	Pass	
m&p-Xylenes	S13-No04351	NCP	%	89			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
o-Xylene	S13-No04351	NCP	%	89			70-130	Pass	
Xylenes - Total	S13-No04351	NCP	%	89			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S13-No04351	NCP	%	73			70-130	Pass	
TRH C6-C10	S13-No04351	NCP	%	95			70-130	Pass	
TRH >C10-C16	S13-No05708	NCP	%	82			70-130	Pass	
Spike - % Recovery									
				Result 1					
Chloride	S13-No05595	NCP	%	98			70-130	Pass	
Sulphate (as S)	S13-No05595	NCP	%	98			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S13-No09122	NCP	%	84			70-130	Pass	
Cadmium	S13-No09122	NCP	%	84			70-130	Pass	
Chromium	S13-No09122	NCP	%	76			70-130	Pass	
Copper	S13-No09122	NCP	%	83			70-130	Pass	
Lead	S13-No09122	NCP	%	69			70-130	Fail	
Mercury	S13-No09122	NCP	%	93			70-130	Pass	
Nickel	S13-No09122	NCP	%	88			70-130	Pass	
Zinc	S13-No04182	NCP	%	106			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S13-No04351	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S13-No05708	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S13-No05708	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S13-No05708	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S13-No04351	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S13-No04351	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S13-No04351	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S13-No04351	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S13-No04351	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	S13-No04351	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S13-No04351	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S13-No04351	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10 less BTEX (F1)	S13-No04351	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S13-No05708	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S13-No05708	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S13-No05708	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Chloride	S13-No05594	NCP	mg/kg	11	11	1.0	30%	Pass	
Sulphate (as S)	S13-No05594	NCP	mg/kg	13	13	<1	30%	Pass	
Phosphorus	S13-No05472	NCP	mg/kg	35	33	6.0	30%	Pass	
Sulphur	S13-No05472	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S13-No04182	NCP	mg/kg	9.3	9.4	1.0	30%	Pass	
Cadmium	S13-No04182	NCP	mg/kg	0.70	0.70	7.0	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Chromium	S13-No04182	NCP	mg/kg	19	21	10	30%	Pass	
Copper	S13-No04182	NCP	mg/kg	33	32	2.0	30%	Pass	
Lead	S13-No04182	NCP	mg/kg	19	21	10	30%	Pass	
Mercury	S13-No02538	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Nickel	S13-No04182	NCP	mg/kg	7.7	9.3	18	30%	Pass	
Zinc	S13-No04182	NCP	mg/kg	54	67	22	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Nitrate (as N)	S13-No04731	CP	mg/kg	1.9	1.9	<1	30%	Pass	
Nitrite (as N)	S13-No04731	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Total Nitrogen Set (as N)				Result 1	Result 2	RPD			
Nitrate & Nitrite (as N)	S13-No04731	CP	mg/kg	2.0	2.0	<1	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
M01	Microbiological Testing performed outside the recommended holding time
M10	NATA accreditation does not cover the performance of this service in soil matrices
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.

Authorised By

Jean Heng	Client Services
Bob Symons	Senior Analyst-Inorganic (NSW)
James Norford	Senior Analyst-Metal (NSW)
Niloufer Lobo	Senior Analyst-Microbiology (VIC)
Ryan Hamilton	Senior Analyst-Organic (NSW)
Ryan Hamilton	Senior Analyst-Volatile (NSW)

Dr. Bob Symons
Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

Sefton McGraw
Eurofins Environment Testing Australia P/L
PO Box 276
Oakleigh VIC 3166
ph 03 95647055 fax 03 95647190

Final Report – 13/11/13

Two biosolid samples were received and analysed for Viruses as requested.

For virus detection ~20g of sample was dissolved in buffer and processed by PEG precipitation and analysed by cell culture.

All samples are processed according to methods WI 300, WI 429, WI 500-561 inclusive as appropriate.

All controls were valid. (<1 denotes viruses not detected.) The results are shown in the following table.

VIRUSES DETECTED BY CELL CULTURE

Sample Identification	Date Sampled	Laboratory Number	Viruses isolated in Cell Culture	Number of Viruses detected Per 10 grams
No006027	Not provided	13-0519	Reovirus Enterovirus Adenovirus	<1 <1 <1
No006028	Not provided	13-0520	Reovirus Enterovirus Adenovirus	<1 <1 <1

Dr. G. S. Grohmann
Principal Consultant

399026

399246

From: Thomas Harding [mailto:THarding@jbsg.com.au]
Sent: Thursday, 7 November 2013 3:09 PM
To: Jean Heng
Cc: Michelle Delandro
Subject: Urban Growth

Jean,

Can I include the following samples on analysis for the Urban Growth Ed Park project please:

Lab report: 398440

Samples:

TP17 0.4-0.5 – Metals, TPH/BTEX, TPH aliphatic/aromatic spilt, TPH Silca gel clean up, Biologicals, nutrients
TP18 0.4-0.5 - Metals, TPH/BTEX, TPH aliphatic/aromatic spilt, TPH Silca gel clean up, Biologicals, nutrients

Thank you

Tom

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh Vic 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F6, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Sample Receipt Advice

Company name: **JBS & G (NSW & WA) Pty Ltd**

Contact name: Thomas Harding
Client job number: EXTERNAL : URBAN GROWTH 43008
COC number: Not provided
Turn around time: 10 Day
Date/Time received: Nov 11, 2013 10:00 AM
Eurofins | mgt reference: **399249**

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 : 9.5 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.

☑ Organic samples had Teflon liners.

☑ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Notes

Parent report 399026 | Microbiological analysis outside of holding time | Microbiological analysis conducted at Environmental Pathogens Canberra

Contact notes

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

Jean Heng on Phone : (+61) (2) 9900 8400 or by e.mail: JeanHeng@eurofins.com.au

Results will be delivered electronically via e.mail to Thomas Harding - tharding@jbsg.com.au.

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 11, 2013 10:00 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:** **Phone:** **Fax:**	399249 02 8245 0300	**Due:** **Priority:** **Contact Name:**	Nov 25, 2013 10 Day Thomas Harding
Client Job No.:	EXTERNAL : URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					Enteric Viruses Presence/Absence (Adenovirus Enterovirus and Reovirus)	Helminth Ova
boratory where analysis is conducted						
elbourne Laboratory - NATA Site # 1254 & 14271						
dney Laboratory - NATA Site # 18217						
isbane Laboratory - NATA Site # 20794						
ternal Laboratory					X	X
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
17 0.4-0.5	Nov 01, 2013		Soil	S13-No06027	X	X
18 0.4-0.5	Nov 01, 2013		Soil	S13-No06028	X	X

eurofins | mgt

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

Attention: **Thomas Harding**

Report **399249-S**
Client Reference EXTERNAL : URBAN GROWTH 43008
Received Date Nov 11, 2013

Client Sample ID			**TP17 0.4-0.5**	**TP18 0.4-0.5**
Sample Matrix			**Soil**	**Soil**
Eurofins | mgt Sample No.			**S13-No06027**	**S13-No06028**
Date Sampled			**Nov 01, 2013**	**Nov 01, 2013**
Test/Reference	LOR	Unit		
Enteric Viruses Presence/Absence (Adenovirus Enterovirus and Reovirus)			see attached	see attached
Helminth Ova			see attached	see attached

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
Helminth Ova	Sydney	Nov 11, 2013	0 Day

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 11, 2013 10:00 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:** **Phone:** **Fax:**	399249 02 8245 0300	**Due:** **Priority:** **Contact Name:**	Nov 25, 2013 10 Day Thomas Harding
Client Job No.:	EXTERNAL : URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					Enteric Viruses Presence/Absence (Adenovirus Enterovirus and Reovirus)	Helminth Ova
boratory where analysis is conducted						
elbourne Laboratory - NATA Site # 1254 & 14271						
dney Laboratory - NATA Site # 18217						
isbane Laboratory - NATA Site # 20794						
ternal Laboratory					X	X
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
17 0.4-0.5	Nov 01, 2013		Soil	S13-No06027	X	X
18 0.4-0.5	Nov 01, 2013		Soil	S13-No06028	X	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

UNITS

mg/kg: milligrams per Kilogram

ug/l: micrograms per litre

ppb: Parts per billion

org/100ml: Organisms per 100 millilitres

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

mg/l: milligrams per litre

ppm: Parts per million

%: Percentage

NTU: Units

TERMS

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

QC - ACCEPTANCE CRITERIA

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

Results <10 times the LOR : No Limit

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

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

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

QC DATA GENERAL COMMENTS

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

Comments

Sample Integrity

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

Authorised By

Jean Heng Client Services

Dr. Bob Symons
Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

mdelandro@jbsg.com.au
elau@jbsg.com.au
tharding@jbsg.com.au

CHAIN OF CUSTODY

#309310

JBS&G

PROJECT NO.: 43008
PROJECT NAME: Urban Growth
SEND REPORT TO:
SEND INVOICE TO: gng@jbsg.com.au
DATE NEEDED BY: Standard
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:
Please forward 'triplicate1' to Enviro126

LABORATORY BATCH NO.:
SAMPLERS: EL & MD
PHONE: SYDNEY 02 82450300 – PERTH 08 9488 0100 EMAIL:
QC LEVEL: NEPM (2013)

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	SVOC	TPH/BTEX	WQ parameters	Nutrients TPH alphatic aromatic TPH silicagel	Biological	15 BTEX	NOTES:
MW01	W	4/11/13				✓				✓ ✓ ✓		X	
MW02						✓				✓ ✓ ✓		X	
MW03						✓				✓ ✓ ✓		X	
MW04						✓				✓ ✓ ✓		X	
SP01						✓	✓	✓	✓				
SP02						✓	✓	✓	✓				
SP03						✓	✓	✓	✓				
SP04						✓	✓	✓	✓				
OPW-01						✓	✓	✓	✓				
OPE-01	↓					✓	✓	✓	✓				
OPWS-01	S		1330			✓				✓ ✓ ✓			
OPWS-02			1335			✓				✓ ✓ ✓			
OPWS-03			1345			✓				✓ ✓ ✓			
OPWS-04			1350			✓				✓ ✓ ✓			
OPES-01			1435			✓				✓ ✓ ✓			
OPES-02			1440			✓				✓ ✓ ✓			
OPES-03			1445			✓				✓ ✓ ✓			
OPES-04	↓	↓	1450			✓				✓ ✓ ✓			

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: Penn 11/11	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: OF: night 17:00 12°	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 FormsO13 – Chain of Custody - Generic

WQ Parameters – pH, EC, redox, TDS/TSS, major anions/cations
Nutrients – Phosphorous, Nitrate, Ammonia
Biological – E.coli, salmonella sp, faecal coliforms, enteric viruses, helminth ova

modelundro@jbsg.com.au
eure@jbsg.com.au
tharding@jbsg.com.au

#309310

JBS&G

CHAIN OF CUSTODY

PROJECT NO.: 43008	LABORATORY BATCH NO.:
PROJECT NAME: Urban Growth	SAMPLERS: EL & MD
SEND REPORT TO: SEND INVOICE TO:	PHONE: SYDNEY 02 82450300 – PERTH 08 9488 0100 EMAIL:
DATE NEEDED BY: Standard	QC LEVEL: NEPM (2013)

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL: Please forward 'triplicate 1' to Envirolab

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavymetals	SVOC	TPH	TPH silica gel	[illegible]	BTEX/PAH	NOTES:
Dup1	W	11/11/13				X			X	X	X	
Triplicate1	W	↓				X			X	X	X	
Trip B	W	↓									X	
Rinsate1	W	↓				X	X		X	X		

forward to envirolab

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: Ellen Liu DATE: 11/11/13 OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: Jean DATE: 11/11 OF: mgt 11:00 12°	COOLER SEAL – Yes....... No .... Intact .... Broken .... COOLER TEMP .... deg C
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: DATE: OF:	COOLER SEAL – Yes....... No .... Intact .... Broken .... 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

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh Vic 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F6, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Sample Receipt Advice

Company name:	**JBS & G (NSW & WA) Pty Ltd**
Contact name:	Thomas Harding
Client job number:	URBAN GROWTH 43008
COC number:	Not provided
Turn around time:	5 Day
Date/Time received:	Nov 11, 2013 5:00 PM
Eurofins | mgt reference:	**399310**

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 : 12 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.

☑ Organic samples had Teflon liners.

☑ Sample containers for volatile analysis received with zero headspace.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Notes

External analysis in report 399312 | Sample TRIPLICATE 1 sent to Envirolab as requested

Contact notes

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

Jean Heng on Phone : (+61) (2) 9900 8400 or by e.mail: JeanHeng@eurofins.com.au

Results will be delivered electronically via e.mail to Thomas Harding - tharding@jbsg.com.au.

Eurofins | mgt Sample Receipt

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 11, 2013 5:00 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	399310	**Due:**	Nov 19, 2013
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Thomas Harding
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	Ammonia (as N)	Conductivity (at 25°C)	E.coli	Nitrate (as N)	pH	Redox Potential mV*	Salmonella	Salmonella Volume/Mass Tested	Suspended Solids	Thermotolerant Coliforms	Total Dissolved Solids	Total Phosphorous	TRH C6-C9	Metals M8	Metals M8 filtered	BTEX	Petroleum Hydrocarbons Silica Cleanup (TPH)	Aromatic & Aliphatic (TRH) - NP	Major Anions	Total Recoverable Hydrocarbons	Major Cations	Semivolatile Organic Compounds (SVOC)	TRH after Silica Cleanup (NEPM) *
boratory where analysis is conducted																												
elbourne Laboratory - NATA Site # 1254 & 14271								X				X	X		X													
dney Laboratory - NATA Site # 18217					X	X	X		X	X	X			X		X	X	X	X	X	X	X	X	X	X	X	X	X
isbane Laboratory - NATA Site # 20794																												
ternal Laboratory																												
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																								
W01	Nov 11, 2013		Water	S13-No06469		X			X								X			X	X	X	X					X
W02	Nov 11, 2013		Water	S13-No06470		X			X								X			X	X	X	X					X
W03	Nov 11, 2013		Water	S13-No06471		X			X								X			X	X	X	X					X
W04	Nov 11, 2013		Water	S13-No06472		X			X								X			X	X	X	X					X
01	Nov 11, 2013		Water	S13-No06473			X			X	X			X		X				X	X			X	X	X	X	
02	Nov 11, 2013		Water	S13-No06474			X			X	X			X		X				X	X			X	X	X	X	
03	Nov 11, 2013		Water	S13-No06475			X			X	X			X		X				X	X			X	X	X	X	
04	Nov 11, 2013		Water	S13-No06476			X			X	X			X		X				X	X			X	X	X	X	
W_01	Nov 11, 2013		Water	S13-No06477			X			X	X			X		X				X	X			X	X	X	X	
E_01	Nov 11, 2013		Water	S13-No06478			X			X	X			X		X				X	X			X	X	X	X	

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:** Nov 11, 2013 5:00 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:** **Phone:** **Fax:**	399310 02 8245 0300	**Due:** Nov 19, 2013 **Priority:** 5 Day **Contact Name:** Thomas Harding
Client Job No.:	URBAN GROWTH 43008			

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	Ammonia (as N)	Conductivity (at 25°C)	E.coli	Nitrate (as N)	pH	Redox Potential mV*	Salmonella	Salmonella Volume/Mass Tested	Suspended Solids	Thermotolerant Coliforms	Total Dissolved Solids	Total Phosphorous	TRH C6-C9	Metals M8	Metals M8 filtered	BTEX	Petroleum Hydrocarbons Silica Cleanup (TPH)	Aromatic & Aliphatic (TRH) - NP	Major Anions	Total Recoverable Hydrocarbons	Major Cations	Semivolatile Organic Compounds (SVOC)	TRH after Silica Cleanup (NEPM) *
aboratory where analysis is conducted																												
elbourne Laboratory - NATA Site # 1254 & 14271								X				X	X		X													
ydney Laboratory - NATA Site # 18217					X	X	X		X	X	X			X		X	X	X	X	X	X	X	X	X	X	X	X	X
risbane Laboratory - NATA Site # 20794																												
xternal Laboratory																												
PWS_01	Nov 11, 2013	1:30PM	Soil	S13-No06479	X			X				X	X		X				X			X	X					X
PWS_02	Nov 11, 2013	1:35PM	Soil	S13-No06480	X														X			X	X					X
PWS_03	Nov 11, 2013	1:35PM	Soil	S13-No06481	X			X				X	X		X				X			X	X					X
PWS_04	Nov 11, 2013	1:50PM	Soil	S13-No06482	X														X			X	X					X
PES_01	Nov 11, 2013	2:35PM	Soil	S13-No06483	X			X				X	X		X				X			X	X					X
PES_02	Nov 11, 2013	2:40PM	Soil	S13-No06484	X														X			X	X					X
PES_03	Nov 11, 2013	2:45PM	Soil	S13-No06485	X			X				X	X		X				X			X	X					X
PES_04	Nov 11, 2013	2:50PM	Soil	S13-No06486	X														X			X	X					X
UP1	Nov 11, 2013		Water	S13-No06487																X	X	X	X		X			X
RIPB	Nov 11, 2013		Water	S13-No06488														X			X							
NSATE 1	Nov 11, 2013		Water	S13-No06489																X			X				X	

eurofins | mgt

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

Attention: **Thomas Harding**

Report **399310-S**
Client Reference URBAN GROWTH 43008
Received Date Nov 11, 2013

Client Sample ID			OPWS_01	OPWS_02	OPWS_03	OPWS_04
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S13-No06479	S13-No06480	S13-No06481	S13-No06482
Date Sampled			Nov 11, 2013	Nov 11, 2013	Nov 11, 2013	Nov 11, 2013
Test/Reference	LOR	Unit				
Aromatic & Aliphatic (TRH) - NP						
TRH >C35 Aromatic	200	mg/kg	< 200	< 200	< 200	< 200
TRH >C35 Aliphatic	1000	mg/kg	< 1000	< 1000	< 1000	< 1000
TRH C10-C15 Aliphatic	500	mg/kg	< 500	< 500	< 500	< 500
TRH C10-C15 Aromatic	50	mg/kg	< 50	< 50	< 50	< 50
TRH C16-C35 Aliphatic	1000	mg/kg	< 1000	< 1000	< 1000	< 1000
TRH C16-C35 Aromatic	50	mg/kg	< 50	< 50	< 50	< 50
Petroleum Hydrocarbons Silica Cleanup (TPH)						
TRH C10-C14 after Silica Cleanup (TPH)	50	mg/kg	< 50	< 50	< 50	< 50
TRH C15-C28 after Silica Cleanup (TPH)	100	mg/kg	< 100	< 100	< 100	< 100
TRH C29-C36 after Silica Cleanup (TPH)	100	mg/kg	< 100	< 100	< 100	< 100
TRH after Silica Cleanup (NEPM) *						
TRH >C10-C16 after Silica Cleanup	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34 after Silica Cleanup	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40 after Silica Cleanup	100	mg/kg	< 100	< 100	< 100	< 100
Heavy Metals						
Arsenic	2	mg/kg	12	6.3	12	5.8
Cadmium	0.4	mg/kg	2.7	1.6	1.7	0.8
Chromium	5	mg/kg	21	14	73	19
Copper	5	mg/kg	200	130	750	210
Lead	5	mg/kg	2900	18	69	21
Mercury	0.05	mg/kg	2.6	2.0	8.7	2.7
Nickel	5	mg/kg	23	10	22	10.0
Zinc	5	mg/kg	660	270	500	180
E.coli	1	MPN/g	580	-	<10	-
Salmonella			[M10]Not Detected	-	[M10]Not Detected	-
Salmonella Volume/Mass Tested		g	25	-	25	-
Thermotolerant Coliforms	-	MPN/g	[M10]730	-	[M10]<10	-
% Moisture	0.1	%	78	64	69	48

Client Sample ID			OPES_01	OPES_02	OPES_03	OPES_04
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S13-No06483	S13-No06484	S13-No06485	S13-No06486
Date Sampled			Nov 11, 2013	Nov 11, 2013	Nov 11, 2013	Nov 11, 2013
Test/Reference	LOR	Unit				
Aromatic & Aliphatic (TRH) - NP						
TRH >C35 Aromatic	200	mg/kg	< 200	< 200	< 200	< 200
TRH >C35 Aliphatic	1000	mg/kg	< 1000	< 1000	< 1000	< 1000
TRH C10-C15 Aliphatic	500	mg/kg	< 500	< 500	< 500	< 500
TRH C10-C15 Aromatic	50	mg/kg	< 50	< 50	< 50	< 50
TRH C16-C35 Aliphatic	1000	mg/kg	< 1000	< 1000	< 1000	< 1000
TRH C16-C35 Aromatic	50	mg/kg	< 50	< 50	< 50	< 50
Petroleum Hydrocarbons Silica Cleanup (TPH)						
TRH C10-C14 after Silica Cleanup (TPH)	50	mg/kg	< 50	< 50	< 50	< 50
TRH C15-C28 after Silica Cleanup (TPH)	100	mg/kg	< 100	< 100	< 100	< 100
TRH C29-C36 after Silica Cleanup (TPH)	100	mg/kg	< 100	< 100	< 100	< 100
TRH after Silica Cleanup (NEPM) *						
TRH >C10-C16 after Silica Cleanup	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34 after Silica Cleanup	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40 after Silica Cleanup	100	mg/kg	< 100	< 100	< 100	< 100
Heavy Metals						
Arsenic	2	mg/kg	12	6.7	4.6	7.3
Cadmium	0.4	mg/kg	0.5	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	20	11	9.3	14
Copper	5	mg/kg	36	29	34	44
Lead	5	mg/kg	28	9.9	9.8	21
Mercury	0.05	mg/kg	0.21	0.07	0.19	0.25
Nickel	5	mg/kg	7.0	5.8	5.9	9.7
Zinc	5	mg/kg	28	24	67	68
E.coli	1	MPN/g	<10	-	51	-
Salmonella			[M10]Not Detected	-	[M10]Not Detected	-
Salmonella Volume/Mass Tested		g	25	-	25	-
Thermotolerant Coliforms	-	MPN/g	[M10]10	-	[M10]52	-
% Moisture	0.1	%	34	31	71	68

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
Aromatic & Aliphatic (TRH) - NP	Sydney	Nov 18, 2013	14 Day
- Method: E012 Aromatic & Aliphatic (TPH)			
TRH after Silica Cleanup (NEPM) *	Sydney	Nov 15, 2013	14 Day
- Method: LM-LTM-ORG2010			
Metals M8	Sydney	Nov 15, 2013	28 Day
- Method: E022 Acid Extractable metals in Soils & E026 Mercury			
E.coli	Melbourne	Nov 13, 2013	72 Hour
- Method: 6621: E.coli in Soil by MPN			
Salmonella	Melbourne	Nov 13, 2013	72 Hour
Thermotolerant Coliforms	Melbourne	Nov 13, 2013	72 Hour
- Method: Inhouse: Thermotolerant Coliforms in Soil by MPN*			
% Moisture	Sydney	Nov 15, 2013	28 Day
- Method: E005 Moisture Content			
Petroleum Hydrocarbons Silica Cleanup (TPH)	Sydney	Nov 18, 2013	14 Day
- Method: E004 Petroleum Hydrocarbons Silica Cleanup (TPH)			

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 11, 2013 5:00 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	399310	**Due:**	Nov 19, 2013
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Thomas Harding
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	Ammonia (as N)	Conductivity (at 25°C)	E.coli	Nitrate (as N)	pH	Redox Potential mV*	Salmonella	Salmonella Volume/Mass Tested	Suspended Solids	Thermotolerant Coliforms	Total Dissolved Solids	Total Phosphorous	TRH C6-C9	Metals M8	Metals M8 filtered	BTEX	Petroleum Hydrocarbons Silica Cleanup (TPH)	Aromatic & Aliphatic (TRH) - NP	Major Anions	Total Recoverable Hydrocarbons	Major Cations	Semivolatile Organic Compounds (SVOC)	TRH after Silica Cleanup (NEPM) *
boratory where analysis is conducted																												
elbourne Laboratory - NATA Site # 1254 & 14271								X				X	X		X													
dney Laboratory - NATA Site # 18217					X	X	X		X	X	X			X		X	X	X	X	X	X	X	X	X	X	X	X	X
isbane Laboratory - NATA Site # 20794																												
ternal Laboratory																												
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																								
W01	Nov 11, 2013		Water	S13-No06469		X			X								X			X	X	X	X					X
W02	Nov 11, 2013		Water	S13-No06470		X			X								X			X	X	X	X					X
W03	Nov 11, 2013		Water	S13-No06471		X			X								X			X	X	X	X					X
W04	Nov 11, 2013		Water	S13-No06472		X			X								X			X	X	X	X					X
01	Nov 11, 2013		Water	S13-No06473			X			X	X			X		X				X	X			X	X	X	X	
02	Nov 11, 2013		Water	S13-No06474			X			X	X			X		X				X	X			X	X	X	X	
03	Nov 11, 2013		Water	S13-No06475			X			X	X			X		X				X	X			X	X	X	X	
04	Nov 11, 2013		Water	S13-No06476			X			X	X			X		X				X	X			X	X	X	X	
W_01	Nov 11, 2013		Water	S13-No06477			X			X	X			X		X				X	X			X	X	X	X	
E_01	Nov 11, 2013		Water	S13-No06478			X			X	X			X		X				X	X			X	X	X	X	

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 11, 2013 5:00 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	399310	**Due:**	Nov 19, 2013
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Thomas Harding
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	Ammonia (as N)	Conductivity (at 25°C)	E.coli	Nitrate (as N)	pH	Redox Potential mV*	Salmonella	Salmonella Volume/Mass Tested	Suspended Solids	Thermotolerant Coliforms	Total Dissolved Solids	Total Phosphorous	TRH C6-C9	Metals M8	Metals M8 filtered	BTEX	Petroleum Hydrocarbons Silica Cleanup (TPH)	Aromatic & Aliphatic (TRH) - NP	Major Anions	Total Recoverable Hydrocarbons	Major Cations	Semivolatile Organic Compounds (SVOC)	TRH after Silica Cleanup (NEPM) *
aboratory where analysis is conducted																												
elbourne Laboratory - NATA Site # 1254 & 14271								X				X	X		X													
ydney Laboratory - NATA Site # 18217					X	X	X		X	X	X			X		X	X	X	X	X	X	X	X	X	X	X	X	X
risbane Laboratory - NATA Site # 20794																												
xternal Laboratory																												
PWS_01	Nov 11, 2013	1:30PM	Soil	S13-No06479	X			X				X	X		X				X			X	X					X
PWS_02	Nov 11, 2013	1:35PM	Soil	S13-No06480	X														X			X	X					X
PWS_03	Nov 11, 2013	1:35PM	Soil	S13-No06481	X			X				X	X		X				X			X	X					X
PWS_04	Nov 11, 2013	1:50PM	Soil	S13-No06482	X														X			X	X					X
PES_01	Nov 11, 2013	2:35PM	Soil	S13-No06483	X			X				X	X		X				X			X	X					X
PES_02	Nov 11, 2013	2:40PM	Soil	S13-No06484	X														X			X	X					X
PES_03	Nov 11, 2013	2:45PM	Soil	S13-No06485	X			X				X	X		X				X			X	X					X
PES_04	Nov 11, 2013	2:50PM	Soil	S13-No06486	X														X			X	X					X
JP1	Nov 11, 2013		Water	S13-No06487																X	X	X	X		X			X
RIPB	Nov 11, 2013		Water	S13-No06488														X			X							
NSATE 1	Nov 11, 2013		Water	S13-No06489																X			X				X	

Eurofins | mgt Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

UNITS

mg/kg: milligrams per Kilogram

ug/l: micrograms per litre

ppb: Parts per billion

org/100ml: Organisms per 100 millilitres

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

mg/l: milligrams per litre

ppm: Parts per million

%: Percentage

NTU: Units

TERMS

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

QC - ACCEPTANCE CRITERIA

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

Results <10 times the LOR : No Limit

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

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

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

QC DATA GENERAL COMMENTS

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

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Petroleum Hydrocarbons Silica Cleanup (TPH)							
TRH C10-C14 after Silica Cleanup (TPH)	mg/kg	< 50			50	Pass	
TRH C15-C28 after Silica Cleanup (TPH)	mg/kg	< 100			100	Pass	
TRH C29-C36 after Silica Cleanup (TPH)	mg/kg	< 100			100	Pass	
Method Blank							
TRH after Silica Cleanup (NEPM) *							
TRH >C10-C16 after Silica Cleanup	mg/kg	< 50			50	Pass	
TRH >C16-C34 after Silica Cleanup	mg/kg	< 100			100	Pass	
TRH >C34-C40 after Silica Cleanup	mg/kg	< 100			100	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.05			0.05	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Petroleum Hydrocarbons Silica Cleanup (TPH)							
TRH C10-C14 after Silica Cleanup (TPH)	%	76			70-130	Pass	
LCS - % Recovery							
TRH after Silica Cleanup (NEPM) *							
TRH >C10-C16 after Silica Cleanup	%	87			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	83			70-130	Pass	
Cadmium	%	91			70-130	Pass	
Chromium	%	89			70-130	Pass	
Copper	%	100			70-130	Pass	
Lead	%	89			70-130	Pass	
Mercury	%	98			70-130	Pass	
Nickel	%	92			70-130	Pass	
Zinc	%	99			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Petroleum Hydrocarbons Silica Cleanup (TPH)				Result 1					
TRH C10-C14 after Silica Cleanup (TPH)	S13-No09447	NCP	%	72			70-130	Pass	
Spike - % Recovery									
TRH after Silica Cleanup (NEPM) *				Result 1					
TRH >C10-C16 after Silica Cleanup	S13-No09447	NCP	%	82			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S13-No06536	NCP	%	74			70-130	Pass	
Cadmium	S13-No06536	NCP	%	83			70-130	Pass	
Chromium	S13-No06536	NCP	%	81			70-130	Pass	
Copper	S13-No06536	NCP	%	91			70-130	Pass	
Lead	S13-No06536	NCP	%	81			70-130	Pass	
Mercury	S13-No07356	NCP	%	97			70-130	Pass	
Nickel	S13-No06536	NCP	%	84			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Zinc	S13-No06536	NCP	%	92			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Petroleum Hydrocarbons Silica Cleanup (TPH)				Result 1	Result 2	RPD			
TRH C10-C14 after Silica Cleanup (TPH)	S13-No09447	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C15-C28 after Silica Cleanup (TPH)	S13-No09447	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH C29-C36 after Silica Cleanup (TPH)	S13-No09447	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
TRH after Silica Cleanup (NEPM) *				Result 1	Result 2	RPD			
TRH >C10-C16 after Silica Cleanup	S13-No09447	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34 after Silica Cleanup	S13-No09447	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40 after Silica Cleanup	S13-No09447	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S13-No06536	NCP	mg/kg	4.2	4.3	2.0	30%	Pass	
Cadmium	S13-No06536	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S13-No06536	NCP	mg/kg	< 5	6.4	45	30%	Fail	Q15
Copper	S13-No06536	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Lead	S13-No06536	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Mercury	S13-No07356	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Nickel	S13-No06536	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S13-No06536	NCP	mg/kg	8.9	14	44	30%	Fail	Q15

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	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
M10	NATA accreditation does not cover the performance of this service in soil matrices
Q15	The RPD reported passes Eurofins | mgt's Acceptance Criteria as stipulated in SOP 05. Refer to Glossary Page of this report for further details

Authorised By

Jean Heng	Client Services
James Norford	Senior Analyst-Metal (NSW)
Niloufer Lobo	Senior Analyst-Microbiology (VIC)
Ryan Hamilton	Senior Analyst-Organic (NSW)
Ryan Hamilton	Senior Analyst-Volatile (NSW)

Dr. Bob Symons
Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

eurofins | mgt

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

Attention: **Thomas Harding**

Report **399310-W**
Client Reference URBAN GROWTH 43008
Received Date Nov 11, 2013

Client Sample ID			**MW01**	**MW02**	**MW03**	**MW04**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins | mgt Sample No.			**S13-No06469**	**S13-No06470**	**S13-No06471**	**S13-No06472**
Date Sampled			**Nov 11, 2013**	**Nov 11, 2013**	**Nov 11, 2013**	**Nov 11, 2013**
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes - Total	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	85	83	85	81
Aromatic & Aliphatic (TRH) - NP						
TRH >C35 Aromatic	0.2	mg/L	< 1	< 1	< 1	< 1
TRH >C35 Aliphatic	1	mg/L	< 0.2	< 0.2	< 0.2	< 0.2
TRH C10-C15 Aliphatic	0.5	mg/L	< 0.5	< 0.5	< 0.5	< 0.5
TRH C10-C15 Aromatic	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C16-C35 Aliphatic	4	mg/L	< 5	< 5	< 5	< 5
TRH C16-C35 Aromatic	0.4	mg/L	< 0.4	< 0.4	< 0.4	< 0.4
Petroleum Hydrocarbons Silica Cleanup (TPH)						
TRH C10-C14 after Silica Cleanup (TPH)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28 after Silica Cleanup (TPH)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36 after Silica Cleanup (TPH)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH after Silica Cleanup (NEPM) *						
TRH >C10-C16 after Silica Cleanup	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34 after Silica Cleanup	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40 after Silica Cleanup	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Ammonia (as N)	0.01	mg/L	< 0.01	0.39	0.59	0.99
Nitrate (as N)	0.01	mg/L	0.04	0.04	0.04	0.09
Total Phosphorous	0.01	mg/L	< 0.01	0.01	0.05	0.03
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	< 0.001	< 0.001	0.001	0.011
Cadmium (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.035
Zinc (filtered)	0.005	mg/L	< 0.005	< 0.005	< 0.005	0.018

Client Sample ID			SP01	SP02	SP03	SP04
Sample Matrix			Water	Water	Water	Water
Eurofins | mgt Sample No.			S13-No06473	S13-No06474	S13-No06475	S13-No06476
Date Sampled			Nov 11, 2013	Nov 11, 2013	Nov 11, 2013	Nov 11, 2013
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-36 (Total)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes - Total	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	82	79	79	78
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Semivolatile Organic Compounds (SVOC)						
2-Chloronaphthalene	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
2-Chlorophenol	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
2-Fluorobiphenyl (surr.)	1	%	91	73	99	89
2-Methylnaphthalene	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
2-Methylphenol (o-Cresol)	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
2-Naphthylamine	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
2-Nitroaniline	0.004	mg/L	< 0.004	< 0.004	< 0.004	< 0.004
2-Nitrophenol	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
3&4-Methylphenol (m&p-Cresol)	0.004	mg/L	< 0.004	< 0.004	< 0.004	< 0.004
3-Methylcholanthrene	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
4-Aminobiphenyl	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
4-Bromophenyl phenyl ether	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
4-Chloro-3-methylphenol	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
4-Chlorophenyl phenyl ether	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
4-Nitrophenol	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
4.4'-DDD	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
4.4'-DDE	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
4.4'-DDT	0.004	mg/L	< 0.004	< 0.004	< 0.004	< 0.004
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Acetophenone	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Aldrin	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Aniline	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	SP01 Water S13-No06473 Nov 11, 2013	SP02 Water S13-No06474 Nov 11, 2013	SP03 Water S13-No06475 Nov 11, 2013	SP04 Water S13-No06476 Nov 11, 2013
Semivolatile Organic Compounds (SVOC)						
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bis(2-chloroethoxy)methane	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Bis(2-ethylhexyl)phthalate	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
Butyl benzyl phthalate	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Chlorpyrifos	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Chrysene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Coumaphos	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
d-BHC	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Demeton-O	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Demeton-S	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Di-n-butyl phthalate	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Di-n-octyl phthalate	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Diazinon	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibenzofuran	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Dichlorvos	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Dieldrin	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Diethyl phthalate	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Dimethoate	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Dimethyl phthalate	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Diphenylamine	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Disulfoton	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Endosulfan sulphate	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Endrin	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Endrin aldehyde	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Endrin ketone	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Ethoprop	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Fenitrothion	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Fensulfothion	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Fenthion	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
g-BHC (Lindane)	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Heptachlor	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Heptachlor epoxide	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Hexachlorobenzene	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Hexachlorobutadiene	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Hexachlorocyclopentadiene	0.004	mg/L	< 0.004	< 0.004	< 0.004	< 0.004
Hexachloroethane	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Malathion	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Methoxychlor	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Methyl azinphos	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Methyl parathion	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Mevinphos	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Monocrotophos	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
N-Nitrosodibutylamine	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
N-Nitrosodipropylamine	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
N-Nitrosopiperidine	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002

Client Sample ID			SP01	SP02	SP03	SP04
Sample Matrix			Water	Water	Water	Water
Eurofins | mgt Sample No.			S13-No06473	S13-No06474	S13-No06475	S13-No06476
Date Sampled			Nov 11, 2013	Nov 11, 2013	Nov 11, 2013	Nov 11, 2013
Test/Reference	LOR	Unit				
Semivolatile Organic Compounds (SVOC)						
Naphthalene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Nitrobenzene	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Nitrobenzene-d5 (surr.)	1	%	100	92	98	99
p-Terphenyl-d14 (surr.)	1	%	122	101	122	123
Parathion	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Pentachlorobenzene	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Pentachloronitrobenzene	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Phenol	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Phenol-d6 (surr.)	1	%	38	39	39	39
Phorate	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Profenofos	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Prothiofos	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ronnel	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Stirophos	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Trichloronate	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Ammonia (as N)	0.01	mg/L	0.03	< 0.01	< 0.01	0.03
Conductivity (at 25°C)	1	uS/cm	400	290	290	400
pH	0.1	units	7.2	7.3	7.5	7.2
Redox Potential mV*	1	mV	(+) 78	(+) 154	(+) 162	(+) 164
Suspended Solids	5	mg/L	46	< 5	< 5	< 5
Total Dissolved Solids	5	mg/L	220	160	150	230
Major Anions						
Bicarbonate Alkalinity (as CaCO3)	5	mg/L	110	91	94	120
Carbonate Alkalinity (as CaCO3)	5	mg/L	< 5	< 5	< 5	< 5
Chloride	1	mg/L	37	26	26	38
Nitrate (as N)	0.01	mg/L	0.06	< 0.01	0.01	0.05
Sulphate (as S)	2	mg/L	4.0	3.0	3.0	4.0
Alkali Metals						
Calcium	0.5	mg/L	36	31	30	36
Magnesium	0.5	mg/L	2.4	1.6	1.5	2.4
Potassium	0.5	mg/L	4.6	3.2	3.1	4.4
Sodium	0.5	mg/L	36	27	26	36
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Cadmium (filtered)	0.0001	mg/L	0.0002	< 0.0001	0.0002	0.0002
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	< 0.001	0.001	0.001	< 0.001
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Zinc (filtered)	0.005	mg/L	0.047	0.039	0.044	0.047

Client Sample ID			OPW_01	OPE_01	DUP1	TRIPB
Sample Matrix			Water	Water	Water	Water
Eurofins | mgt Sample No.			S13-No06477	S13-No06478	S13-No06487	S13-No06488
Date Sampled			Nov 11, 2013	Nov 11, 2013	Nov 11, 2013	Nov 11, 2013
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	< 0.05	-
TRH C15-C28	0.1	mg/L	0.2	0.4	< 0.1	-
TRH C29-C36	0.1	mg/L	0.1	0.2	< 0.1	-
TRH C10-36 (Total)	0.1	mg/L	0.3	0.6	< 0.1	-
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes - Total	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	82	78	77	76
Aromatic & Aliphatic (TRH) - NP						
TRH >C35 Aromatic	0.2	mg/L	-	-	< 1	-
TRH >C35 Aliphatic	1	mg/L	-	-	< 0.2	-
TRH C10-C15 Aliphatic	0.5	mg/L	-	-	< 0.5	-
TRH C10-C15 Aromatic	0.05	mg/L	-	-	< 0.05	-
TRH C16-C35 Aliphatic	4	mg/L	-	-	< 4	-
TRH C16-C35 Aromatic	0.4	mg/L	-	-	< 0.4	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.02	mg/L	< 0.02	< 0.02	< 0.02	-
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	< 0.02	-
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	< 0.02	-
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	< 0.05	-
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	< 0.05	< 0.05	-
TRH >C16-C34	0.1	mg/L	0.3	0.6	< 0.1	-
TRH >C34-C40	0.1	mg/L	< 0.1	0.3	< 0.1	-
Petroleum Hydrocarbons Silica Cleanup (TPH)						
TRH C10-C14 after Silica Cleanup (TPH)	0.05	mg/L	-	-	< 0.05	-
TRH C15-C28 after Silica Cleanup (TPH)	0.1	mg/L	-	-	< 0.1	-
TRH C29-C36 after Silica Cleanup (TPH)	0.1	mg/L	-	-	< 0.1	-
Semivolatile Organic Compounds (SVOC)						
2-Chloronaphthalene	0.002	mg/L	< 0.002	< 0.002	-	-
2-Chlorophenol	0.002	mg/L	< 0.002	< 0.002	-	-
2-Fluorobiphenyl (surr.)	1	%	96	85	-	-
2-Methylnaphthalene	0.002	mg/L	< 0.002	< 0.002	-	-
2-Methylphenol (o-Cresol)	0.002	mg/L	< 0.002	< 0.002	-	-
2-Naphthylamine	0.002	mg/L	< 0.002	< 0.002	-	-
2-Nitroaniline	0.004	mg/L	< 0.004	< 0.004	-	-
2-Nitrophenol	0.002	mg/L	< 0.002	< 0.002	-	-
3&4-Methylphenol (m&p-Cresol)	0.004	mg/L	< 0.004	< 0.004	-	-
3-Methylcholanthrene	0.002	mg/L	< 0.002	< 0.002	-	-
4-Aminobiphenyl	0.002	mg/L	< 0.002	< 0.002	-	-
4-Bromophenyl phenyl ether	0.002	mg/L	< 0.002	< 0.002	-	-
4-Chloro-3-methylphenol	0.002	mg/L	< 0.002	< 0.002	-	-
4-Chlorophenyl phenyl ether	0.002	mg/L	< 0.002	< 0.002	-	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	OPW_01 Water S13-No06477 Nov 11, 2013	OPE_01 Water S13-No06478 Nov 11, 2013	DUP1 Water S13-No06487 Nov 11, 2013	TRIPB Water S13-No06488 Nov 11, 2013
Semivolatile Organic Compounds (SVOC)						
4-Nitrophenol	0.002	mg/L	< 0.002	< 0.002	-	-
4.4'-DDD	0.002	mg/L	< 0.002	< 0.002	-	-
4.4'-DDE	0.002	mg/L	< 0.002	< 0.002	-	-
4.4'-DDT	0.004	mg/L	< 0.004	< 0.004	-	-
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	-	-
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	-	-
Acetophenone	0.002	mg/L	< 0.002	< 0.002	-	-
Aldrin	0.002	mg/L	< 0.002	< 0.002	-	-
Aniline	0.002	mg/L	< 0.002	< 0.002	-	-
Anthracene	0.001	mg/L	< 0.001	< 0.001	-	-
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	-	-
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	-	-
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	< 0.001	-	-
Bis(2-chloroethoxy)methane	0.002	mg/L	< 0.002	< 0.002	-	-
Bis(2-ethylhexyl)phthalate	0.02	mg/L	< 0.02	< 0.02	-	-
Butyl benzyl phthalate	0.002	mg/L	< 0.002	< 0.002	-	-
Chlorpyrifos	0.002	mg/L	< 0.002	< 0.002	-	-
Chrysene	0.001	mg/L	< 0.001	< 0.001	-	-
Coumaphos	0.002	mg/L	< 0.002	< 0.002	-	-
d-BHC	0.002	mg/L	< 0.002	< 0.002	-	-
Demeton-O	0.002	mg/L	< 0.002	< 0.002	-	-
Demeton-S	0.002	mg/L	< 0.002	< 0.002	-	-
Di-n-butyl phthalate	0.002	mg/L	< 0.002	< 0.002	-	-
Di-n-octyl phthalate	0.002	mg/L	< 0.002	< 0.002	-	-
Diazinon	0.002	mg/L	< 0.002	< 0.002	-	-
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	< 0.001	-	-
Dibenzofuran	0.002	mg/L	< 0.002	< 0.002	-	-
Dichlorvos	0.002	mg/L	< 0.002	< 0.002	-	-
Dieldrin	0.002	mg/L	< 0.002	< 0.002	-	-
Diethyl phthalate	0.002	mg/L	< 0.002	< 0.002	-	-
Dimethoate	0.002	mg/L	< 0.002	< 0.002	-	-
Dimethyl phthalate	0.002	mg/L	< 0.002	< 0.002	-	-
Diphenylamine	0.002	mg/L	< 0.002	< 0.002	-	-
Disulfoton	0.002	mg/L	< 0.002	< 0.002	-	-
Endosulfan sulphate	0.002	mg/L	< 0.002	< 0.002	-	-
Endrin	0.002	mg/L	< 0.002	< 0.002	-	-
Endrin aldehyde	0.002	mg/L	< 0.002	< 0.002	-	-
Endrin ketone	0.002	mg/L	< 0.002	< 0.002	-	-
Ethoprop	0.002	mg/L	< 0.002	< 0.002	-	-
Fenitrothion	0.002	mg/L	< 0.002	< 0.002	-	-
Fensulfothion	0.002	mg/L	< 0.002	< 0.002	-	-
Fenthion	0.002	mg/L	< 0.002	< 0.002	-	-
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	-	-
Fluorene	0.001	mg/L	< 0.001	< 0.001	-	-
g-BHC (Lindane)	0.002	mg/L	< 0.002	< 0.002	-	-
Heptachlor	0.002	mg/L	< 0.002	< 0.002	-	-
Heptachlor epoxide	0.002	mg/L	< 0.002	< 0.002	-	-
Hexachlorobenzene	0.002	mg/L	< 0.002	< 0.002	-	-
Hexachlorobutadiene	0.002	mg/L	< 0.002	< 0.002	-	-

Client Sample ID			OPW_01	OPE_01	DUP1	TRIPB
Sample Matrix			Water	Water	Water	Water
Eurofins | mgt Sample No.			S13-No06477	S13-No06478	S13-No06487	S13-No06488
Date Sampled			Nov 11, 2013	Nov 11, 2013	Nov 11, 2013	Nov 11, 2013
Test/Reference	LOR	Unit				
Semivolatile Organic Compounds (SVOC)						
Hexachlorocyclopentadiene	0.004	mg/L	< 0.004	< 0.004	-	-
Hexachloroethane	0.002	mg/L	< 0.002	< 0.002	-	-
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	-	-
Malathion	0.002	mg/L	< 0.002	< 0.002	-	-
Methoxychlor	0.001	mg/L	< 0.001	< 0.001	-	-
Methyl azinphos	0.002	mg/L	< 0.002	< 0.002	-	-
Methyl parathion	0.002	mg/L	< 0.002	< 0.002	-	-
Mevinphos	0.002	mg/L	< 0.002	< 0.002	-	-
Monocrotophos	0.02	mg/L	< 0.02	< 0.02	-	-
N-Nitrosodibutylamine	0.002	mg/L	< 0.002	< 0.002	-	-
N-Nitrosodipropylamine	0.002	mg/L	< 0.002	< 0.002	-	-
N-Nitrosopiperidine	0.002	mg/L	< 0.002	< 0.002	-	-
Naphthalene	0.001	mg/L	< 0.001	< 0.001	-	-
Nitrobenzene	0.002	mg/L	< 0.002	< 0.002	-	-
Nitrobenzene-d5 (surr.)	1	%	98	89	-	-
p-Terphenyl-d14 (surr.)	1	%	120	122	-	-
Parathion	0.002	mg/L	< 0.002	< 0.002	-	-
Pentachlorobenzene	0.002	mg/L	< 0.002	< 0.002	-	-
Pentachloronitrobenzene	0.002	mg/L	< 0.002	< 0.002	-	-
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	-	-
Phenanthrene	0.001	mg/L	< 0.001	< 0.001	-	-
Phenol	0.002	mg/L	< 0.002	< 0.002	-	-
Phenol-d6 (surr.)	1	%	40	39	-	-
Phorate	0.002	mg/L	< 0.002	< 0.002	-	-
Profenofos	0.002	mg/L	< 0.002	< 0.002	-	-
Prothiofos	0.002	mg/L	< 0.002	< 0.002	-	-
Pyrene	0.001	mg/L	< 0.001	< 0.001	-	-
Ronnel	0.002	mg/L	< 0.002	< 0.002	-	-
Stirophos	0.002	mg/L	< 0.002	< 0.002	-	-
Trichloronate	0.002	mg/L	< 0.002	< 0.002	-	-
TRH after Silica Cleanup (NEPM) *						
TRH >C10-C16 after Silica Cleanup	0.05	mg/L	-	-	< 0.05	-
TRH >C16-C34 after Silica Cleanup	0.1	mg/L	-	-	< 0.1	-
TRH >C34-C40 after Silica Cleanup	0.1	mg/L	-	-	< 0.1	-
Ammonia (as N)	0.01	mg/L	3.8	< 0.01	-	-
Conductivity (at 25°C)	1	uS/cm	480	370	-	-
pH	0.1	units	7.1	6.8	-	-
Redox Potential mV*	1	mV	(+) 140	(+) 113	-	-
Suspended Solids	5	mg/L	90	230	-	-
Total Dissolved Solids	5	mg/L	350	240	-	-
Major Anions						
Bicarbonate Alkalinity (as CaCO3)	5	mg/L	110	97	-	-
Carbonate Alkalinity (as CaCO3)	5	mg/L	< 5	< 5	-	-
Chloride	1	mg/L	51	47	-	-
Nitrate (as N)	0.01	mg/L	< 0.01	< 0.01	-	-
Sulphate (as S)	2	mg/L	11	< 2	-	-

Client Sample ID			OPW_01	OPE_01	DUP1	TRIPB
Sample Matrix			Water	Water	Water	Water
Eurofins | mgt Sample No.			S13-No06477	S13-No06478	S13-No06487	S13-No06488
Date Sampled			Nov 11, 2013	Nov 11, 2013	Nov 11, 2013	Nov 11, 2013
Test/Reference	LOR	Unit				
Alkali Metals						
Calcium	0.5	mg/L	15	9.7	-	-
Magnesium	0.5	mg/L	9.9	8.5	-	-
Potassium	0.5	mg/L	5.6	8.2	-	-
Sodium	0.5	mg/L	56	44	-	-
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	0.004	< 0.001	< 0.001	-
Cadmium (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	-
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Copper (filtered)	0.001	mg/L	0.002	< 0.001	< 0.001	-
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	-
Nickel (filtered)	0.001	mg/L	0.004	< 0.001	< 0.001	-
Zinc (filtered)	0.005	mg/L	0.010	< 0.005	< 0.005	-

Client Sample ID			RINSATE 1
Sample Matrix			Water
Eurofins | mgt Sample No.			S13-No06489
Date Sampled			Nov 11, 2013
Test/Reference	LOR	Unit	
Aromatic & Aliphatic (TRH) - NP			
TRH >C35 Aromatic	0.2	mg/L	< 1
TRH >C35 Aliphatic	1	mg/L	< 0.2
TRH C10-C15 Aliphatic	0.5	mg/L	< 0.5
TRH C10-C15 Aromatic	0.05	mg/L	< 0.05
TRH C16-C35 Aliphatic	4	mg/L	< 4
TRH C16-C35 Aromatic	0.4	mg/L	< 0.4
Semivolatile Organic Compounds (SVOC)			
2-Chloronaphthalene	0.002	mg/L	< 0.002
2-Chlorophenol	0.002	mg/L	< 0.002
2-Fluorobiphenyl (surr.)	1	%	95
2-Methylnaphthalene	0.002	mg/L	< 0.002
2-Methylphenol (o-Cresol)	0.002	mg/L	< 0.002
2-Naphthylamine	0.002	mg/L	< 0.002
2-Nitroaniline	0.004	mg/L	< 0.004
2-Nitrophenol	0.002	mg/L	< 0.002
3&4-Methylphenol (m&p-Cresol)	0.004	mg/L	< 0.004
3-Methylcholanthrene	0.002	mg/L	< 0.002
4-Aminobiphenyl	0.002	mg/L	< 0.002
4-Bromophenyl phenyl ether	0.002	mg/L	< 0.002
4-Chloro-3-methylphenol	0.002	mg/L	< 0.002
4-Chlorophenyl phenyl ether	0.002	mg/L	< 0.002
4-Nitrophenol	0.002	mg/L	< 0.002
4.4'-DDD	0.002	mg/L	< 0.002
4.4'-DDE	0.002	mg/L	< 0.002
4.4'-DDT	0.004	mg/L	< 0.004

Client Sample ID			RINSATE 1
Sample Matrix			Water
Eurofins | mgt Sample No.			S13-No06489
Date Sampled			Nov 11, 2013
Test/Reference	LOR	Unit	
Semivolatile Organic Compounds (SVOC)			
Acenaphthene	0.001	mg/L	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001
Acetophenone	0.002	mg/L	< 0.002
Aldrin	0.002	mg/L	< 0.002
Aniline	0.002	mg/L	< 0.002
Anthracene	0.001	mg/L	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001
Bis(2-chloroethoxy)methane	0.002	mg/L	< 0.002
Bis(2-ethylhexyl)phthalate	0.02	mg/L	< 0.02
Butyl benzyl phthalate	0.002	mg/L	< 0.002
Carbazole	0.002	mg/L	< 0.002
Chlorpyrifos	0.002	mg/L	< 0.002
Chrysene	0.001	mg/L	< 0.001
Coumaphos	0.002	mg/L	< 0.002
d-BHC	0.002	mg/L	< 0.002
Demeton-O	0.002	mg/L	< 0.002
Demeton-S	0.002	mg/L	< 0.002
Di-n-butyl phthalate	0.002	mg/L	< 0.002
Di-n-octyl phthalate	0.002	mg/L	< 0.002
Diazinon	0.002	mg/L	< 0.002
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001
Dibenzofuran	0.002	mg/L	< 0.002
Dichlorvos	0.002	mg/L	< 0.002
Dieldrin	0.002	mg/L	< 0.002
Diethyl phthalate	0.002	mg/L	< 0.002
Dimethoate	0.002	mg/L	< 0.002
Dimethyl phthalate	0.002	mg/L	< 0.002
Diphenylamine	0.002	mg/L	< 0.002
Disulfoton	0.002	mg/L	< 0.002
Endosulfan sulphate	0.002	mg/L	< 0.002
Endrin	0.002	mg/L	< 0.002
Endrin aldehyde	0.002	mg/L	< 0.002
Endrin ketone	0.002	mg/L	< 0.002
Ethoprop	0.002	mg/L	< 0.002
Fenitrothion	0.002	mg/L	< 0.002
Fensulfothion	0.002	mg/L	< 0.002
Fenthion	0.002	mg/L	< 0.002
Fluoranthene	0.001	mg/L	< 0.001
Fluorene	0.001	mg/L	< 0.001
g-BHC (Lindane)	0.002	mg/L	< 0.002
Heptachlor	0.002	mg/L	< 0.002
Heptachlor epoxide	0.002	mg/L	< 0.002
Hexachlorobenzene	0.002	mg/L	< 0.002
Hexachlorobutadiene	0.002	mg/L	< 0.002
Hexachlorocyclopentadiene	0.004	mg/L	< 0.004
Hexachloroethane	0.002	mg/L	< 0.002
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001

Client Sample ID			RINSATE 1
Sample Matrix			Water
Eurofins | mgt Sample No.			S13-No06489
Date Sampled			Nov 11, 2013
Test/Reference	LOR	Unit	
Semivolatile Organic Compounds (SVOC)			
Malathion	0.002	mg/L	< 0.002
Methoxychlor	0.001	mg/L	< 0.001
Methyl azinphos	0.002	mg/L	< 0.002
Methyl parathion	0.002	mg/L	< 0.002
Mevinphos	0.002	mg/L	< 0.002
Monocrotophos	0.02	mg/L	< 0.02
N-Nitrosodibutylamine	0.002	mg/L	< 0.002
N-Nitrosodipropylamine	0.002	mg/L	< 0.002
N-Nitrosopiperidine	0.002	mg/L	< 0.002
Naphthalene	0.001	mg/L	< 0.001
Nitrobenzene	0.002	mg/L	< 0.002
Nitrobenzene-d5 (surr.)	1	%	92
p-Terphenyl-d14 (surr.)	1	%	125
Parathion	0.002	mg/L	< 0.002
Pentachlorobenzene	0.002	mg/L	< 0.002
Pentachloronitrobenzene	0.002	mg/L	< 0.002
Pentachlorophenol	0.01	mg/L	< 0.01
Phenanthrene	0.001	mg/L	< 0.001
Phenol	0.002	mg/L	< 0.002
Phenol-d6 (surr.)	1	%	38
Phorate	0.002	mg/L	< 0.002
Profenofos	0.002	mg/L	< 0.002
Prothiofos	0.002	mg/L	< 0.002
Pyrene	0.001	mg/L	< 0.001
Ronnel	0.002	mg/L	< 0.002
Stirophos	0.002	mg/L	< 0.002
Trichloronate	0.002	mg/L	< 0.002
Heavy Metals			
Arsenic (filtered)	0.001	mg/L	< 0.001
Cadmium (filtered)	0.0001	mg/L	< 0.0001
Chromium (filtered)	0.001	mg/L	< 0.001
Copper (filtered)	0.001	mg/L	< 0.001
Lead (filtered)	0.001	mg/L	< 0.001
Mercury (filtered)	0.0001	mg/L	< 0.0001
Nickel (filtered)	0.001	mg/L	< 0.001
Zinc (filtered)	0.005	mg/L	< 0.005

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Nov 14, 2013	7 Day
- Method: E004 Petroleum Hydrocarbons (TPH)			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Nov 14, 2013	7 Day
- Method: LM-LTM-ORG2010			
BTEX	Sydney	Nov 11, 2013	14 Day
- Method: E029/E016 BTEX			
Aromatic & Aliphatic (TRH) - NP	Sydney	Nov 14, 2013	7 Day
- Method: E012 Aromatic & Aliphatic (TPH)			
Semivolatile Organic Compounds (SVOC)	Sydney	Nov 14, 2013	14 Day
- Method: E017 Semivolatile Organic Compounds (SVOC)			
TRH after Silica Cleanup (NEPM) *	Sydney	Nov 11, 2013	7 Day
- Method: LM-LTM-ORG2010			
Conductivity (at 25°C)	Sydney	Nov 13, 2013	28 Day
- Method: E032 Electrical conductivity (EC)			
Nitrate (as N)	Sydney	Nov 14, 2013	28 Day
- Method: E037 /E051 Nitrate as N			
pH	Sydney	Nov 13, 2013	1 Day
- Method: E018 pH ** Samples analysed outside holding time. Analysis should be performed in situ. Results for reference only.			
Redox Potential mV*	Sydney	Nov 13, 2013	5 Day
- Method: APHA 2580B Redox Potential			
Suspended Solids	Sydney	Nov 13, 2013	7 Day
- Method: 4100 Total Suspended Solids dried at 103-105°C			
Total Dissolved Solids	Sydney	Nov 13, 2013	7 Day
- Method: 4110 Total Dissolved Solids dried at 180 ± 2°C			
Total Phosphorous	Sydney	Nov 11, 2013	28 Day
- Method: E038 /E052 Total Phosphorus (as P)			
Major Anions			
Bicarbonate Alkalinity (as CaCO3)	Sydney	Nov 14, 2013	14 Day
- Method: E035 Alkalinity (CO3, HCO3, OH)			
Carbonate Alkalinity (as CaCO3)	Sydney	Nov 14, 2013	14 Day
- Method: E035 Alkalinity (CO3, HCO3, OH)			
Chloride	Sydney	Nov 14, 2013	28 Day
- Method: E033 /E045 /E047 Chloride			
Nitrate (as N)	Sydney	Nov 14, 2013	28 Day
- Method: E037 /E051 Nitrate as N			
Sulphate (as S)	Sydney	Nov 14, 2013	28 Day
- Method: E045 Sulphate			
Metals M8 filtered	Sydney	Nov 11, 2013	28 Day
- Method: E020/E030 Filtered Metals in Water & E026 Mercury			
Petroleum Hydrocarbons Silica Cleanup (TPH)	Sydney	Nov 14, 2013	7 Day
- Method: E004 Petroleum Hydrocarbons Silica Cleanup (TPH)			
Major Cations			
Ammonia (as N)	Sydney	Nov 11, 2013	28 Day
- Method: E036/E050 Ammonia as N			
Alkali Metals	Sydney	Nov 11, 2013	180 Day
- Method: E022/E030 Unfiltered Cations in Water			

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 11, 2013 5:00 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	399310	**Due:**	Nov 19, 2013
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Thomas Harding
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	Ammonia (as N)	Conductivity (at 25°C)	E.coli	Nitrate (as N)	pH	Redox Potential mV*	Salmonella	Salmonella Volume/Mass Tested	Suspended Solids	Thermotolerant Coliforms	Total Dissolved Solids	Total Phosphorous	TRH C6-C9	Metals M8	Metals M8 filtered	BTEX	Petroleum Hydrocarbons Silica Cleanup (TPH)	Aromatic & Aliphatic (TRH) - NP	Major Anions	Total Recoverable Hydrocarbons	Major Cations	Semivolatile Organic Compounds (SVOC)	TRH after Silica Cleanup (NEPM) *
boratory where analysis is conducted																												
elbourne Laboratory - NATA Site # 1254 & 14271								X				X	X		X													
dney Laboratory - NATA Site # 18217					X	X	X		X	X	X			X		X	X	X	X	X	X	X	X	X	X	X	X	X
isbane Laboratory - NATA Site # 20794																												
ternal Laboratory																												
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																								
W01	Nov 11, 2013		Water	S13-No06469		X			X								X			X	X	X	X					X
W02	Nov 11, 2013		Water	S13-No06470		X			X								X			X	X	X	X					X
W03	Nov 11, 2013		Water	S13-No06471		X			X								X			X	X	X	X					X
W04	Nov 11, 2013		Water	S13-No06472		X			X								X			X	X	X	X					X
01	Nov 11, 2013		Water	S13-No06473			X			X	X			X		X				X	X			X	X	X	X	
02	Nov 11, 2013		Water	S13-No06474			X			X	X			X		X				X	X			X	X	X	X	
03	Nov 11, 2013		Water	S13-No06475			X			X	X			X		X				X	X			X	X	X	X	
04	Nov 11, 2013		Water	S13-No06476			X			X	X			X		X				X	X			X	X	X	X	
W_01	Nov 11, 2013		Water	S13-No06477			X			X	X			X		X				X	X			X	X	X	X	
E_01	Nov 11, 2013		Water	S13-No06478			X			X	X			X		X				X	X			X	X	X	X	

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 11, 2013 5:00 PM
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		Fax:		**Contact Name:**	Thomas Harding
Client Job No.:	URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	Ammonia (as N)	Conductivity (at 25°C)	E.coli	Nitrate (as N)	pH	Redox Potential mV*	Salmonella	Salmonella Volume/Mass Tested	Suspended Solids	Thermotolerant Coliforms	Total Dissolved Solids	Total Phosphorous	TRH C6-C9	Metals M8	Metals M8 filtered	BTEX	Petroleum Hydrocarbons Silica Cleanup (TPH)	Aromatic & Aliphatic (TRH) - NP	Major Anions	Total Recoverable Hydrocarbons	Major Cations	Semivolatile Organic Compounds (SVOC)	TRH after Silica Cleanup (NEPM) *
aboratory where analysis is conducted																												
elbourne Laboratory - NATA Site # 1254 & 14271								X				X	X		X													
ydney Laboratory - NATA Site # 18217					X	X	X		X	X	X			X		X	X	X	X	X	X	X	X	X	X	X	X	X
risbane Laboratory - NATA Site # 20794																												
xternal Laboratory																												
PWS_01	Nov 11, 2013	1:30PM	Soil	S13-No06479	X			X				X	X		X				X			X	X					X
PWS_02	Nov 11, 2013	1:35PM	Soil	S13-No06480	X														X			X	X					X
PWS_03	Nov 11, 2013	1:35PM	Soil	S13-No06481	X			X				X	X		X				X			X	X					X
PWS_04	Nov 11, 2013	1:50PM	Soil	S13-No06482	X														X			X	X					X
PES_01	Nov 11, 2013	2:35PM	Soil	S13-No06483	X			X				X	X		X				X			X	X					X
PES_02	Nov 11, 2013	2:40PM	Soil	S13-No06484	X														X			X	X					X
PES_03	Nov 11, 2013	2:45PM	Soil	S13-No06485	X			X				X	X		X				X			X	X					X
PES_04	Nov 11, 2013	2:50PM	Soil	S13-No06486	X														X			X	X					X
UP1	Nov 11, 2013		Water	S13-No06487																X	X	X	X		X			X
RIPB	Nov 11, 2013		Water	S13-No06488														X			X							
NSATE 1	Nov 11, 2013		Water	S13-No06489																X			X				X	

Eurofins | mgt Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

UNITS

mg/kg: milligrams per Kilogram

ug/l: micrograms per litre

ppb: Parts per billion

org/100ml: Organisms per 100 millilitres

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

mg/l: milligrams per litre

ppm: Parts per million

%: Percentage

NTU: Units

TERMS

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

QC - ACCEPTANCE CRITERIA

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

Results <10 times the LOR : No Limit

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

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

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

QC DATA GENERAL COMMENTS

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

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total	mg/L	< 0.003			0.003	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.02			0.02	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH C6-C10 less BTEX (F1)	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
Semivolatile Organic Compounds (SVOC)							
2-Chloronaphthalene	mg/L	< 0.002			0.002	Pass	
2-Chlorophenol	mg/L	< 0.002			0.002	Pass	
2-Methylnaphthalene	mg/L	< 0.002			0.002	Pass	
2-Methylphenol (o-Cresol)	mg/L	< 0.002			0.002	Pass	
2-Naphthylamine	mg/L	< 0.002			0.002	Pass	
2-Nitroaniline	mg/L	< 0.004			0.004	Pass	
2-Nitrophenol	mg/L	< 0.002			0.002	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/L	< 0.004			0.004	Pass	
3-Methylcholanthrene	mg/L	< 0.002			0.002	Pass	
4-Aminobiphenyl	mg/L	< 0.002			0.002	Pass	
4-Bromophenyl phenyl ether	mg/L	< 0.002			0.002	Pass	
4-Chloro-3-methylphenol	mg/L	< 0.002			0.002	Pass	
4-Chlorophenyl phenyl ether	mg/L	< 0.002			0.002	Pass	
4-Nitrophenol	mg/L	< 0.002			0.002	Pass	
4.4'-DDD	mg/L	< 0.002			0.002	Pass	
4.4'-DDE	mg/L	< 0.002			0.002	Pass	
4.4'-DDT	mg/L	< 0.004			0.004	Pass	
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Acetophenone	mg/L	< 0.002			0.002	Pass	
Aldrin	mg/L	< 0.002			0.002	Pass	
Aniline	mg/L	< 0.002			0.002	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.001			0.001	Pass	
Bis(2-chloroethoxy)methane	mg/L	< 0.002			0.002	Pass	
Bis(2-ethylhexyl)phthalate	mg/L	< 0.02			0.02	Pass	
Butyl benzyl phthalate	mg/L	< 0.002			0.002	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
d-BHC	mg/L	< 0.002			0.002	Pass	
Di-n-butyl phthalate	mg/L	< 0.002			0.002	Pass	
Di-n-octyl phthalate	mg/L	< 0.002			0.002	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.001			0.001	Pass	
Dibenzofuran	mg/L	< 0.002			0.002	Pass	
Dieldrin	mg/L	< 0.002			0.002	Pass	
Diethyl phthalate	mg/L	< 0.002			0.002	Pass	
Dimethyl phthalate	mg/L	< 0.002			0.002	Pass	
Diphenylamine	mg/L	< 0.002			0.002	Pass	
Endosulfan sulphate	mg/L	< 0.002			0.002	Pass	
Endrin	mg/L	< 0.002			0.002	Pass	
Endrin aldehyde	mg/L	< 0.002			0.002	Pass	
Endrin ketone	mg/L	< 0.002			0.002	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
g-BHC (Lindane)	mg/L	< 0.002			0.002	Pass	
Heptachlor	mg/L	< 0.002			0.002	Pass	
Heptachlor epoxide	mg/L	< 0.002			0.002	Pass	
Hexachlorobenzene	mg/L	< 0.002			0.002	Pass	
Hexachlorobutadiene	mg/L	< 0.002			0.002	Pass	
Hexachlorocyclopentadiene	mg/L	< 0.004			0.004	Pass	
Hexachloroethane	mg/L	< 0.002			0.002	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Methoxychlor	mg/L	< 0.001			0.001	Pass	
N-Nitrosodibutylamine	mg/L	< 0.002			0.002	Pass	
N-Nitrosodipropylamine	mg/L	< 0.002			0.002	Pass	
N-Nitrosopiperidine	mg/L	< 0.002			0.002	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Nitrobenzene	mg/L	< 0.002			0.002	Pass	
Pentachlorobenzene	mg/L	< 0.002			0.002	Pass	
Pentachloronitrobenzene	mg/L	< 0.002			0.002	Pass	
Pentachlorophenol	mg/L	< 0.01			0.01	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Phenol	mg/L	< 0.002			0.002	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Ammonia (as N)	mg/L	< 0.01			0.01	Pass	
Nitrate (as N)	mg/L	< 0.01			0.01	Pass	
Suspended Solids	mg/L	< 5			5	Pass	
Total Dissolved Solids	mg/L	< 5			5	Pass	
Total Phosphorous	mg/L	< 0.01			0.01	Pass	
Method Blank							
Major Anions							
Bicarbonate Alkalinity (as CaCO3)	mg/L	< 5			5	Pass	
Carbonate Alkalinity (as CaCO3)	mg/L	< 5			5	Pass	
Chloride	mg/L	< 1			1	Pass	
Sulphate (as S)	mg/L	< 2			2	Pass	
Method Blank							
Alkali Metals							
Calcium	mg/L	< 0.5			0.5	Pass	
Magnesium	mg/L	< 0.5			0.5	Pass	
Potassium	mg/L	< 0.5			0.5	Pass	
Method Blank							
Heavy Metals							
Arsenic (filtered)	mg/L	< 0.001			0.001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Cadmium (filtered)	mg/L	< 0.0001			0.0001	Pass	
Chromium (filtered)	mg/L	< 0.001			0.001	Pass	
Copper (filtered)	mg/L	< 0.001			0.001	Pass	
Lead (filtered)	mg/L	< 0.001			0.001	Pass	
Mercury (filtered)	mg/L	< 0.0001			0.0001	Pass	
Nickel (filtered)	mg/L	< 0.001			0.001	Pass	
Zinc (filtered)	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	97			70-130	Pass	
TRH C10-C14	%	89			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	101			70-130	Pass	
Toluene	%	103			70-130	Pass	
Ethylbenzene	%	96			70-130	Pass	
m&p-Xylenes	%	104			70-130	Pass	
o-Xylene	%	103			70-130	Pass	
Xylenes - Total	%	104			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	94			70-130	Pass	
TRH C6-C10	%	98			70-130	Pass	
TRH >C10-C16	%	102			70-130	Pass	
LCS - % Recovery							
Semivolatile Organic Compounds (SVOC)							
2-Chlorophenol	%	91			30-130	Pass	
4-Chloro-3-methylphenol	%	77			30-130	Pass	
4-Nitrophenol	%	41			30-130	Pass	
Acenaphthene	%	86			70-130	Pass	
N-Nitrosodipropylamine	%	98			70-130	Pass	
Pentachlorophenol	%	96			30-130	Pass	
Pyrene	%	95			70-130	Pass	
LCS - % Recovery							
Ammonia (as N)	%	86			70-130	Pass	
Nitrate (as N)	%	118			70-130	Pass	
Suspended Solids	%	102			70-130	Pass	
Total Phosphorous	%	102			70-130	Pass	
LCS - % Recovery							
Major Anions							
Bicarbonate Alkalinity (as CaCO3)	%	104			70-130	Pass	
Chloride	%	107			70-130	Pass	
Sulphate (as S)	%	103			70-130	Pass	
LCS - % Recovery							
Alkali Metals							
Calcium	%	87			70-130	Pass	
Magnesium	%	102			70-130	Pass	
Potassium	%	74			70-130	Pass	
Sodium	%	109			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic (filtered)	%	102			70-130	Pass	
Cadmium (filtered)	%	98			70-130	Pass	
Chromium (filtered)	%	103			70-130	Pass	
Copper (filtered)	%	102			70-130	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Lead (filtered)			%	107			70-130	Pass	
Mercury (filtered)			%	80			70-130	Pass	
Nickel (filtered)			%	103			70-130	Pass	
Zinc (filtered)			%	102			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
				Result 1					
Ammonia (as N)	S13-No06469	CP	%	87			70-130	Pass	
Nitrate (as N)	S13-No08441	NCP	%	93			70-130	Pass	
Total Phosphorous	S13-No06247	NCP	%	103			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S13-No06470	CP	%	83			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S13-No06470	CP	%	100			70-130	Pass	
Toluene	S13-No06470	CP	%	99			70-130	Pass	
Ethylbenzene	S13-No06470	CP	%	89			70-130	Pass	
m&p-Xylenes	S13-No06470	CP	%	97			70-130	Pass	
o-Xylene	S13-No06470	CP	%	98			70-130	Pass	
Xylenes - Total	S13-No06470	CP	%	97			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S13-No06470	CP	%	89			70-130	Pass	
TRH C6-C10	S13-No06470	CP	%	74			70-130	Pass	
Spike - % Recovery									
Major Anions				Result 1					
Bicarbonate Alkalinity (as CaCO3)	S13-No06473	CP	%	92			70-130	Pass	
Sulphate (as S)	S13-No05424	NCP	%	101			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic (filtered)	S13-No06473	CP	%	108			70-130	Pass	
Cadmium (filtered)	S13-No06473	CP	%	107			70-130	Pass	
Chromium (filtered)	S13-No06473	CP	%	107			70-130	Pass	
Copper (filtered)	S13-No06473	CP	%	102			70-130	Pass	
Lead (filtered)	S13-No06473	CP	%	107			70-130	Pass	
Mercury (filtered)	S13-No06473	CP	%	86			70-130	Pass	
Nickel (filtered)	S13-No06473	CP	%	103			70-130	Pass	
Zinc (filtered)	S13-No06473	CP	%	109			70-130	Pass	
Spike - % Recovery									
Major Anions				Result 1					
Chloride	S13-No06474	CP	%	110			70-130	Pass	
Spike - % Recovery									
Alkali Metals				Result 1					
Calcium	S13-No06477	CP	%	104			70-130	Pass	
Magnesium	S13-No06477	CP	%	120			70-130	Pass	
Potassium	S13-No06477	CP	%	90			70-130	Pass	
Sodium	S13-No06477	CP	%	98			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S13-No06488	CP	%	95			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S13-No06488	CP	%	102			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Toluene	S13-No06488	CP	%	103			70-130	Pass	
Ethylbenzene	S13-No06488	CP	%	96			70-130	Pass	
m&p-Xylenes	S13-No06488	CP	%	105			70-130	Pass	
o-Xylene	S13-No06488	CP	%	104			70-130	Pass	
Xylenes - Total	S13-No06488	CP	%	105			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S13-No06488	CP	%	90			70-130	Pass	
TRH C6-C10	S13-No06488	CP	%	87			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S13-No06469	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S13-No06469	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S13-No06469	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S13-No06469	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S13-No06469	CP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S13-No06469	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total	S13-No06469	CP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S13-No06469	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C6-C10	S13-No06469	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C6-C10 less BTEX (F1)	S13-No06469	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Ammonia (as N)	S13-No06469	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Nitrate (as N)	S13-No08441	NCP	mg/L	0.79	0.79	<1	30%	Pass	
Total Phosphorous	S13-No06247	NCP	mg/L	0.020	0.022	32	30%	Fail	Q15
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic (filtered)	S13-No06472	CP	mg/L	0.011	0.012	<1	30%	Pass	
Cadmium (filtered)	S13-No06472	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Chromium (filtered)	S13-No06472	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper (filtered)	S13-No06472	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Lead (filtered)	S13-No06472	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury (filtered)	S13-No06472	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel (filtered)	S13-No06472	CP	mg/L	0.035	0.035	<1	30%	Pass	
Zinc (filtered)	S13-No06472	CP	mg/L	0.018	0.018	2.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Conductivity (at 25°C)	S13-No06473	CP	uS/cm	400	410	1.0	30%	Pass	
Suspended Solids	S13-No06473	CP	mg/L	46	55	17	30%	Pass	
Total Dissolved Solids	S13-No06001	NCP	mg/L	8200	8500	3.0	30%	Pass	
Duplicate									
Major Anions				Result 1	Result 2	RPD			
Bicarbonate Alkalinity (as CaCO3)	S13-No06473	CP	mg/L	110	120	<1	30%	Pass	
Carbonate Alkalinity (as CaCO3)	S13-No06473	CP	mg/L	< 5	< 5	<1	30%	Pass	
Chloride	S13-No06473	CP	mg/L	37	36	3.0	30%	Pass	
Sulphate (as S)	S13-No06473	CP	mg/L	4.0	3.0	<1	30%	Pass	

Duplicate									
Alkali Metals				Result 1	Result 2	RPD			
Calcium	S13-No06476	CP	mg/L	36	36	<1	30%	Pass	
Magnesium	S13-No06476	CP	mg/L	2.4	2.4	1.0	30%	Pass	
Potassium	S13-No06476	CP	mg/L	4.4	4.4	1.0	30%	Pass	
Sodium	S13-No06476	CP	mg/L	36	36	1.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S13-No06487	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S13-No06487	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S13-No06487	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S13-No06487	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S13-No06487	CP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S13-No06487	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total	S13-No06487	CP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S13-No06487	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C6-C10	S13-No06487	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C6-C10 less BTEX (F1)	S13-No06487	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	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
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
Q15	The RPD reported passes Eurofins | mgt's Acceptance Criteria as stipulated in SOP 05. Refer to Glossary Page of this report for further details

Authorised By

Jean Heng	Client Services
Bob Symons	Senior Analyst-Inorganic (NSW)
James Norford	Senior Analyst-Metal (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)
Ryan Hamilton	Senior Analyst-Volatile (NSW)

Dr. Bob Symons
Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

Sefton McGraw
Eurofins Environment Testing Australia P/L
PO Box 276
Oakleigh VIC 3166
ph 03 95647055 fax 03 95647190

Final Report – 29/11/13

Four biosolid samples were received on November 14 and analysed for Viruses and Helminths as requested.

For viral analysis, each sample was dissolved in buffer and processed by PEG precipitation, to give a final volume of <30ml, and analysed by cell culture.

For Helminth detection, the sample was dissolved in buffer and a flotation method was used to recover helminth ova. For the detection of helminth ova/eggs (including Taenia sp., & Ascaris sp.) the results are expressed in ova/cysts per volume of sample tested.

All samples are processed according to methods WI 300, WI 429, WI 500-561 inclusive as appropriate. All controls were valid. (<1 denotes viruses or helminths not detected.)

The results are shown in the following tables.

RESULTS

Viruses Detected by Cell Culture

Sample Identification	Volume Tested	Date Sampled	Laboratory Number	Reo-viruses	Adeno-viruses	Entero-viruses
No06490	20g	12/11/13	13-0549	<1 per 20g	<1 per 20g	<1 per 20g
No06491	20g	12/11/13	13-0550	<1 per 20g	<1 per 20g	<1 per 20g
No06492	20g	12/11/13	13-0551	<1 per 20g	<1 per 20g	<1 per 20g
No06493	20g	12/11/13	13-0552	<1 per 20g	<1 per 20g	<1 per 20g

Helminths Detected

Sample Identification	Volume Tested	Date Sampled	Laboratory Number	ova (eggs) detected	
				Taenia ova	Ascaris ova
No06490	20g	12/11/13	13-0553	<1 per 20g	<1 per 20g
No06491	20g	12/11/13	13-0554	<1 per 20g	<1 per 20g
No06492	20g	12/11/13	13-0555	<1 per 20g	<1 per 20g
No06493	20g	12/11/13	13-0556	<1 per 20g	<1 per 20g

Dr. G. S. Grohmann
Principal Consultant

mdelandro@jbsg.com.au
elau@jbsg.com.au
tharding@jbsg.com.au

#300312
#300310

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 43008
PROJECT NAME: Urban Growth
SEND REPORT TO:
SEND INVOICE TO: gng@jbsg.com.au
DATE NEEDED BY: Standard
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:
Please forward 'triplicate1' to Enviro126

LABORATORY BATCH NO.:
SAMPLERS: EL & MD
PHONE: SYDNEY 02 82450300 – PERTH 08 9488 0100 EMAIL:
QC LEVEL: NEPM (2013)

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	SVOC	TPH/BTEX	WQ parameters	Nutrients TPH aliphatic aromatic	TPH silica gel cleanup	Biological	B TEX	NOTES:
MW01	W	4/11/13				✓				✓	✓	✓		
MW02						✓				✓	✓	✓		
MW03						✓				✓	✓	✓		
MW04						✓				✓	✓	✓		
SP01						✓	✓	✓	✓					
SP02						✓	✓	✓	✓					
SP03						✓	✓	✓	✓					
SP04						✓	✓	✓	✓					
OPW-01						✓	✓	✓	✓					
OPE-01						✓	✓	✓	✓					
OPWS-01	S		1330			✓				✓	✓	✓		
OPWS-02			1335			✓				✓	✓	✓		
OPWS-03			1345			✓				✓	✓	✓		
OPWS-04			1350			✓				✓	✓	✓		
OPES-01			1435			✓				✓	✓	✓		
OPES-02			1440			✓				✓	✓	✓		
OPES-03			1445			✓				✓	✓	✓		
OPES-04			1450			✓				✓	✓	✓		

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: Penn 11/11	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: OF: 17:00 12°	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 Forms013 - Chain of Custody - Generic

WQ Parameters – pH, EC, redox, TDS/TSS, major anions/cations
Nutrients – Phosphorous, Nitrate, Ammonia
Biological – E.coli, salmonella sp, faecal coliforms, enteric viruses, helminth ova

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#300312
#300310

JBS&G

CHAIN OF CUSTODY

PROJECT NO.: 43008	LABORATORY BATCH NO.:
PROJECT NAME: Urban Growth	SAMPLERS: EL & MD
SEND REPORT TO: SEND INVOICE TO:	PHONE: SYDNEY 02 82450300 – PERTH 08 9488 0100 EMAIL:
DATE NEEDED BY: Standard	QC LEVEL: NEPM (2013)

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL: Please forward 'triplicate 1' to Envirolab

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	SVOC	TPH	TPH silica gel	[illegible]	BTEX/PAH	NOTES:
Dup1	W	11/11/13				X			X	X	X	
Triplicate1	W	↓				X			X	X	X	
Trip B	W	↓									X	
Rinsate1	W	↓				X	X		X	X		

forward to envirolab

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: Ellen Liu DATE: 11/11/13 OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: Jem DATE: 11/11 OF: mgt 11:00 12°	COOLER SEAL – Yes....... No .... Intact .... Broken .... COOLER TEMP .... deg C
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: DATE: OF:	COOLER SEAL – Yes....... No .... Intact .... Broken .... 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

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh Vic 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F6, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Sample Receipt Advice

Company name: **JBS & G (NSW & WA) Pty Ltd**

Contact name: Thomas Harding
Client job number: EXTERNAL: URBAN GROWTH 43008
COC number: Not provided
Turn around time: 10 Day
Date/Time received: Nov 11, 2013 5:00 PM
Eurofins | mgt reference: **399312**

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 : 12 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.

☑ Organic samples had Teflon liners.

☑ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Notes

Parent report 399310 | Microbiological analysis conducted at Environmental Pathogens Canberra

Contact notes

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

Jean Heng on Phone : (+61) (2) 9900 8400 or by e.mail: JeanHeng@eurofins.com.au

Results will be delivered electronically via e.mail to Thomas Harding - tharding@jbsg.com.au.

Eurofins | mgt Sample Receipt

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 11, 2013 5:00 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	399312	**Due:**	Nov 26, 2013
		Phone:	02 8245 0300	**Priority:**	10 Day
		Fax:		**Contact Name:**	Thomas Harding
Client Job No.:	EXTERNAL: URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					Enteric Viruses Presence/Absence (Adenovirus Enterovirus and Reovirus)	Helminth Ova
boratory where analysis is conducted						
elbourne Laboratory - NATA Site # 1254 & 14271						
dney Laboratory - NATA Site # 18217						
isbane Laboratory - NATA Site # 20794						
ternal Laboratory					X	X
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
WS_01	Nov 11, 2013	1:30PM	Soil	S13-No06490	X	X
WS_03	Nov 11, 2013	1:45PM	Soil	S13-No06491	X	X
ES_01	Nov 11, 2013	2:35PM	Soil	S13-No06492	X	X
ES_03	Nov 11, 2013	2:45PM	Soil	S13-No06493	X	X

Certificate of Analysis

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

Attention: **Thomas Harding**

Report **399312-S**
Client Reference EXTERNAL: URBAN GROWTH 43008
Received Date Nov 11, 2013

Client Sample ID			**OPWS_01**	**OPWS_03**	**OPES_01**	**OPES_03**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S13-No06490**	**S13-No06491**	**S13-No06492**	**S13-No06493**
Date Sampled			**Nov 11, 2013**	**Nov 11, 2013**	**Nov 11, 2013**	**Nov 11, 2013**
Test/Reference	LOR	Unit				
Enteric Viruses Presence/Absence (Adenovirus Enterovirus and Reovirus)			see attached	see attached	see attached	see attached
Helminth Ova			see attached	see attached	see attached	see attached

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
Helminth Ova	Sydney	Nov 11, 2013	0 Day

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 11, 2013 5:00 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	399312	**Due:**	Nov 26, 2013
		Phone:	02 8245 0300	**Priority:**	10 Day
		Fax:		**Contact Name:**	Thomas Harding
Client Job No.:	EXTERNAL: URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					Enteric Viruses Presence/Absence (Adenovirus Enterovirus and Reovirus)	Helminth Ova
boratory where analysis is conducted						
elbourne Laboratory - NATA Site # 1254 & 14271						
dney Laboratory - NATA Site # 18217						
isbane Laboratory - NATA Site # 20794						
ternal Laboratory					X	X
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
WS_01	Nov 11, 2013	1:30PM	Soil	S13-No06490	X	X
WS_03	Nov 11, 2013	1:45PM	Soil	S13-No06491	X	X
ES_01	Nov 11, 2013	2:35PM	Soil	S13-No06492	X	X
ES_03	Nov 11, 2013	2:45PM	Soil	S13-No06493	X	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

UNITS

mg/kg: milligrams per Kilogram

ug/l: micrograms per litre

ppb: Parts per billion

org/100ml: Organisms per 100 millilitres

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

mg/l: milligrams per litre

ppm: Parts per million

%: Percentage

NTU: Units

TERMS

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

QC - ACCEPTANCE CRITERIA

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

Results <10 times the LOR : No Limit

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

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

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

QC DATA GENERAL COMMENTS

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

Comments

Helminth ova/Enteric Viruses analysed by Environmental Pathogens, report 291113

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	Yes

Authorised By

Jean Heng Client Services

Dr. Bob Symons
Laboratory Manager

- Indicates Not Requested

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

Uncertainty data is available on request

#400236
19/11/13.

From: Thomas Harding <THarding@jbsg.com.au>
Date: 19 November 2013 11:17:32 AM AEDT
To: Jean Heng <JeanHeng@eurofins.com.au>
Subject: Lab Batch 398243 Urban Growth

Hi Jean,

Can I place the following samples on for analysis please? 4day turnaround please

Lab batch 398243

TP12 0.1-0.2 - TCLP Metals and PAHs
TP12 0.7-0.8 – PAHs and metals

Thank you

Tom

Tom Harding | Hydrogeologist | JBS&G
Sydney | Melbourne | Adelaide | Perth | Brisbane
Level 1, 50 Margaret Street Sydney NSW 2000
T: 02 8245 0300 | M: 0418 560 381 | www.jbsg.com.au
Contaminated Land | Groundwater Remediation | Auditing and Compliance | Assessments and Approvals | Occupational Hygiene and Monitoring

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh Vic 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F6, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Sample Receipt Advice

Company name: **JBS & G (NSW & WA) Pty Ltd**

Contact name: Thomas Harding
Client job number: ADDITIONAL: URBAN GROWTH 43008
COC number: Not provided
Turn around time: 4 Day
Date/Time received: Nov 19, 2013 11:17 AM
Eurofins | mgt reference: **400236**

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 : 14 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.

☑ Organic samples had Teflon liners.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Notes

Additional from report 398243 | TCLP and PAH outside of holding time

Contact notes

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

Jean Heng on Phone : (+61) (2) 9900 8400 or by e.mail: JeanHeng@eurofins.com.au

Results will be delivered electronically via e.mail to Thomas Harding - tharding@jbsg.com.au.

Eurofins | mgt Sample Receipt

Company Name:	JBS & G (NSW & WA) Pty Ltd		**Order No.:**		**Received:**	Nov 19, 2013 11:17 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000		**Report #:**	400236	**Due:**	Nov 25, 2013
			Phone:	02 8245 0300	**Priority:**	4 Day
			Fax:		**Contact Name:**	Thomas Harding
Client Job No.:	ADDITIONAL: URBAN GROWTH 43008					

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	Polycyclic Aromatic Hydrocarbons	Toxicity Characteristic Leaching Procedure (TCLP)	Metals M8
boratory where analysis is conducted								
elbourne Laboratory - NATA Site # 1254 & 14271								
dney Laboratory - NATA Site # 18217					X	X	X	X
isbane Laboratory - NATA Site # 20794								
ternal Laboratory								
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**				
12 0.1-0.2	Oct 31, 2013		TCLP	S13-No12941	X	X	X	X
12 0.7-0.8	Oct 31, 2013		Soil	S13-No12942	X	X		X

eurofins | mgt

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

Attention: **Thomas Harding**

Report **400236-L**
Client Reference ADDITIONAL: URBAN GROWTH 43008
Received Date Nov 19, 2013

Client Sample ID			**TP12 0.1-0.2**
Sample Matrix			**TCLP**
Eurofins | mgt Sample No.			**S13-No12941**
Date Sampled			**Oct 31, 2013**
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
Acenaphthene	0.001	mg/L	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001
Anthracene	0.001	mg/L	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001
Chrysene	0.001	mg/L	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001
Fluoranthene	0.001	mg/L	< 0.001
Fluorene	0.001	mg/L	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001
Naphthalene	0.001	mg/L	0.003
Phenanthrene	0.001	mg/L	< 0.001
Pyrene	0.001	mg/L	< 0.001
Total PAH	0.002	mg/L	0.003
2-Fluorobiphenyl (surr.)	1	%	96
p-Terphenyl-d14 (surr.)	1	%	114
Heavy Metals			
Arsenic	0.01	mg/L	< 0.01
Cadmium	0.005	mg/L	< 0.005
Chromium	0.05	mg/L	< 0.05
Copper	0.05	mg/L	< 0.05
Lead	0.01	mg/L	< 0.01
Mercury	0.001	mg/L	0.001
Nickel	0.05	mg/L	< 0.05
Zinc	0.05	mg/L	0.60
% Moisture	0.1	%	14
Toxicity Characteristic Leaching Procedure (TCLP)			
Leachate Fluid[C01]		comment	1.0
pH (TCLP - HCl addition)	0.1	units	1.9
pH (TCLP - initial)	0.1	units	5.6
pH (TCLP - off)	0.1	units	4.8

Sample History

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Description	Testing Site	Extracted	Holding Time
Polycyclic Aromatic Hydrocarbons	Sydney	Nov 21, 2013	7 Day
- Method: E007 Polyaromatic Hydrocarbons (PAH)			
Metals M8	Sydney	Nov 19, 2013	28 Day
- Method: E022 Acid Extractable metals in Soils & E026 Mercury			
% Moisture	Sydney	Nov 19, 2013	0 Day
- Method: E005 Moisture Content			
Toxicity Characteristic Leaching Procedure (TCLP)	Sydney	Nov 19, 2013	0 Day
- Method: E019 TCLP Preparation			

Company Name:	JBS & G (NSW & WA) Pty Ltd		**Order No.:**		**Received:**	Nov 19, 2013 11:17 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000		**Report #:**	400236	**Due:**	Nov 25, 2013
			Phone:	02 8245 0300	**Priority:**	4 Day
			Fax:		**Contact Name:**	Thomas Harding
Client Job No.:	ADDITIONAL: URBAN GROWTH 43008					

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	Polycyclic Aromatic Hydrocarbons	Toxicity Characteristic Leaching Procedure (TCLP)	Metals M8
boratory where analysis is conducted								
elbourne Laboratory - NATA Site # 1254 & 14271								
dney Laboratory - NATA Site # 18217					X	X	X	X
isbane Laboratory - NATA Site # 20794								
ternal Laboratory								
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**				
12 0.1-0.2	Oct 31, 2013		TCLP	S13-No12941	X	X	X	X
12 0.7-0.8	Oct 31, 2013		Soil	S13-No12942	X	X		X

Eurofins | mgt Internal Quality Control Review and Glossary

General

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ppb: Parts per billion

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ppm: Parts per million

%: Percentage

NTU: Units

TERMS

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

QC - ACCEPTANCE CRITERIA

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

Results <10 times the LOR : No Limit

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

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

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

QC DATA GENERAL COMMENTS

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

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank									
Polycyclic Aromatic Hydrocarbons									
Acenaphthene			mg/L	< 0.001			0.001	Pass	
Acenaphthylene			mg/L	< 0.001			0.001	Pass	
Anthracene			mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene			mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene			mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene			mg/L	< 0.001			0.001	Pass	
Benzo(g.h.i)perylene			mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene			mg/L	< 0.001			0.001	Pass	
Chrysene			mg/L	< 0.001			0.001	Pass	
Dibenz(a.h)anthracene			mg/L	< 0.001			0.001	Pass	
Fluoranthene			mg/L	< 0.001			0.001	Pass	
Fluorene			mg/L	< 0.001			0.001	Pass	
Indeno(1.2.3-cd)pyrene			mg/L	< 0.001			0.001	Pass	
Naphthalene			mg/L	< 0.001			0.001	Pass	
Phenanthrene			mg/L	< 0.001			0.001	Pass	
Pyrene			mg/L	< 0.001			0.001	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S13-No12494	NCP	%	107			70-130	Pass	
Cadmium	S13-No12494	NCP	%	108			70-130	Pass	
Chromium	S13-No12494	NCP	%	96			70-130	Pass	
Copper	S13-No12494	NCP	%	94			70-130	Pass	
Lead	S13-No12494	NCP	%	100			70-130	Pass	
Mercury	S13-No12494	NCP	%	79			70-130	Pass	
Nickel	S13-No12494	NCP	%	94			70-130	Pass	
Zinc	S13-No12494	NCP	%	102			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S13-No08842	NCP	mg/L	0.030	0.040	3.0	30%	Pass	
Cadmium	S13-No08842	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Chromium	S13-No08842	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
Copper	S13-No08842	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
Lead	S13-No08842	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Mercury	S13-No08842	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Nickel	S13-No08842	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
Zinc	S13-No08842	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
C01	Leachate Fluid Key: 1 - pH 5.0, 2 - pH 2.9, 3 - pH 9.2, 4 - Reagent (DI) water, 5 - Client sample, 6 - other
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised By

Jean Heng	Client Services
James Norford	Senior Analyst-Metal (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)

Dr. Bob Symons
Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

eurofins | mgt

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

Attention: **Thomas Harding**

Report **400236-S**
Client Reference ADDITIONAL: URBAN GROWTH 43008
Received Date Nov 19, 2013

Client Sample ID			**TP12 0.7-0.8**
Sample Matrix			**Soil**
Eurofins | mgt Sample No.			**S13-No12942**
Date Sampled			**Oct 31, 2013**
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
Acenaphthene	0.5	mg/kg	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5
Anthracene	0.5	mg/kg	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5
Chrysene	0.5	mg/kg	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5
Fluorene	0.5	mg/kg	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5
Naphthalene	0.5	mg/kg	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5
Pyrene	0.5	mg/kg	< 0.5
Total PAH	0.5	mg/kg	< 0.5
Benzo(a)pyrene TEQ (lower bound)*	0.5	mg/kg	< 0.5
Benzo(a)pyrene TEQ (medium bound)*	0.5	mg/kg	0.6
Benzo(a)pyrene TEQ (upper bound)*	0.5	mg/kg	1.2
2-Fluorobiphenyl (surr.)	1	%	100
p-Terphenyl-d14 (surr.)	1	%	102
Heavy Metals			
Arsenic	2	mg/kg	< 2
Cadmium	0.4	mg/kg	< 0.4
Chromium	5	mg/kg	< 5
Copper	5	mg/kg	< 5
Lead	5	mg/kg	< 5
Mercury	0.05	mg/kg	< 0.05
Nickel	5	mg/kg	< 5
Zinc	5	mg/kg	< 5
% Moisture	0.1	%	13

Description	Testing Site	Extracted	Holding Time
Polycyclic Aromatic Hydrocarbons	Sydney	Nov 19, 2013	14 Day
- Method: E007 Polyaromatic Hydrocarbons (PAH)			
Metals M8	Sydney	Nov 19, 2013	28 Day
- Method: E022 Acid Extractable metals in Soils & E026 Mercury			
% Moisture	Sydney	Nov 19, 2013	28 Day
- Method: E005 Moisture Content			

Company Name:	JBS & G (NSW & WA) Pty Ltd		**Order No.:**		**Received:**	Nov 19, 2013 11:17 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000		**Report #:**	400236	**Due:**	Nov 25, 2013
			Phone:	02 8245 0300	**Priority:**	4 Day
			Fax:		**Contact Name:**	Thomas Harding
Client Job No.:	ADDITIONAL: URBAN GROWTH 43008					

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Moisture	Polycyclic Aromatic Hydrocarbons	Toxicity Characteristic Leaching Procedure (TCLP)	Metals M8
boratory where analysis is conducted								
elbourne Laboratory - NATA Site # 1254 & 14271								
dney Laboratory - NATA Site # 18217					X	X	X	X
isbane Laboratory - NATA Site # 20794								
ternal Laboratory								
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**				
12 0.1-0.2	Oct 31, 2013		TCLP	S13-No12941	X	X	X	X
12 0.7-0.8	Oct 31, 2013		Soil	S13-No12942	X	X		X

Eurofins | mgt Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

UNITS

mg/kg: milligrams per Kilogram

ug/l: micrograms per litre

ppb: Parts per billion

org/100ml: Organisms per 100 millilitres

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

mg/l: milligrams per litre

ppm: Parts per million

%: Percentage

NTU: Units

TERMS

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

QC - ACCEPTANCE CRITERIA

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

Results <10 times the LOR : No Limit

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

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

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

QC DATA GENERAL COMMENTS

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

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	111			70-130	Pass	
Acenaphthylene	%	104			70-130	Pass	
Anthracene	%	115			70-130	Pass	
Benz(a)anthracene	%	116			70-130	Pass	
Benzo(a)pyrene	%	92			70-130	Pass	
Benzo(b&j)fluoranthene	%	83			70-130	Pass	
Benzo(g.h.i)perylene	%	86			70-130	Pass	
Benzo(k)fluoranthene	%	107			70-130	Pass	
Chrysene	%	108			70-130	Pass	
Dibenz(a.h)anthracene	%	91			70-130	Pass	
Fluoranthene	%	122			70-130	Pass	
Fluorene	%	111			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	90			70-130	Pass	
Naphthalene	%	108			70-130	Pass	
Phenanthrene	%	122			70-130	Pass	
Pyrene	%	121			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S13-No16502	NCP	%	115			70-130	Pass	
Acenaphthylene	S13-No16502	NCP	%	115			70-130	Pass	
Anthracene	S13-No16502	NCP	%	112			70-130	Pass	
Benz(a)anthracene	S13-No16502	NCP	%	110			70-130	Pass	
Benzo(a)pyrene	S13-No16502	NCP	%	110			70-130	Pass	
Benzo(b&j)fluoranthene	S13-No16502	NCP	%	86			70-130	Pass	
Benzo(g.h.i)perylene	S13-No16502	NCP	%	105			70-130	Pass	
Benzo(k)fluoranthene	S13-No16502	NCP	%	122			70-130	Pass	
Chrysene	S13-No16502	NCP	%	121			70-130	Pass	
Dibenz(a.h)anthracene	S13-No16502	NCP	%	102			70-130	Pass	
Fluoranthene	S13-No16502	NCP	%	123			70-130	Pass	
Fluorene	S13-No16502	NCP	%	116			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S13-No16502	NCP	%	109			70-130	Pass	
Naphthalene	S13-No16502	NCP	%	123			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Phenanthrene	S13-No16502	NCP	%	120			70-130	Pass	
Pyrene	S13-No16502	NCP	%	126			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S13-No16502	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S13-No16502	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S13-No16502	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S13-No16502	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S13-No16502	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S13-No16502	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S13-No16502	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S13-No16502	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S13-No16502	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S13-No16502	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S13-No16502	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S13-No16502	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S13-No16502	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S13-No16502	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S13-No16502	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S13-No16502	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised By

Jean Heng	Client Services
James Norford	Senior Analyst-Metal (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)

Dr. Bob Symons
Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 43008
PROJECT NAME: Ed Parlc
SEND REPORT TO: THarding SEND INVOICE TO: Cburg
DATE NEEDED BY: 5 day
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

LABORATORY BATCH NO.
SAMPLERS
PHONE: 02 82450300 EMAIL:
QC LEVEL:

	SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Asbestos	8 Hazd Metals	TPH/BTEX	PAHs	PCBs/OCPs	NOTES
1	TP02 0.1-0.2	Soil	8/11/13		Jar & Bag		X					
2	TP03 0.1-0.2	↓					X					
3	TP05 0.1-0.2						X					
6	TP08 0.1-0.2						X					
8	TP10 - 0.1-0.2						X					
4	03001						X	X	X	X	X	
5	03001A							X	X	X	X	
7	03002A	↓										

99986
11 - Samples
COC 5/11

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ....., Broken .....
OF: JBS&G	TRANSPORT CO.	OF:	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

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

CERTIFICATE OF ANALYSIS 99986

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

Attention: Tom Harding, Ellen Luu

Sample log in details:

Your Reference:	**43008, Urban Growth**
No. of samples:	8 soils
Date samples received / completed instructions received	01/11/13 / 01/11/13

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

Report Details:

Date results requested by: / Issue Date:	12/11/13 / 12/11/13
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

vTRH(C6-C10)/BTEXN in Soil			
Our Reference:	UNITS	99986-5	99986-7
Your Reference	----------	QS001A	QS002A
Depth	----------	-	-
Date Sampled		30/10/2013	30/10/2013
Type of sample		Soil	Soil
Date extracted	-	06/11/2013	06/11/2013
Date analysed	-	09/11/2013	09/11/2013
TRH C_6 - C_9	mg/kg	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25
Benzene	mg/kg	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1
m+p-xylene	mg/kg	<2	<2
o-Xylene	mg/kg	<1	<1
naphthalene	mg/kg	<1	<1
Surrogate aaa-Trifluorotoluene	%	97	95

svTRH (C10-C40) in Soil			
Our Reference:	UNITS	99986-5	99986-7
Your Reference	----------	QS001A	QS002A
Depth	----------	-	-
Date Sampled		30/10/2013	30/10/2013
Type of sample		Soil	Soil
Date extracted	-	06/11/2013	06/11/2013
Date analysed	-	07/11/2013	07/11/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	<100
TRHC$_{29}$ - C$_{36}$	mg/kg	<100	<100
TRH>C$_{10}$-C$_{16}$	mg/kg	<50	<50
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	<50	<50
TRH>C$_{16}$-C$_{34}$	mg/kg	<100	<100
TRH>C$_{34}$-C$_{40}$	mg/kg	<100	<100
Surrogate o-Terphenyl	%	87	86

PAHs in Soil			
Our Reference:	UNITS	99986-5	99986-7
Your Reference	----------	QS001A	QS002A
Depth	----------	-	-
Date Sampled		30/10/2013	30/10/2013
Type of sample		Soil	Soil
Date extracted	-	06/11/2013	06/11/2013
Date analysed	-	07/11/2013	07/11/2013
Naphthalene	mg/kg	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	96	97

Organochlorine Pesticides in soil			
Our Reference:	UNITS	99986-5	99986-7
Your Reference	----------	QS001A	QS002A
Depth	----------	-	-
Date Sampled		30/10/2013	30/10/2013
Type of sample		Soil	Soil
Date extracted	-	06/11/2013	06/11/2013
Date analysed	-	06/11/2013	06/11/2013
HCB	mg/kg	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1
Surrogate TCMX	%	81	81

PCBs in Soil			
Our Reference:	UNITS	99986-5	99986-7
Your Reference	----------	QS001A	QS002A
Depth	----------	-	-
Date Sampled		30/10/2013	30/10/2013
Type of sample		Soil	Soil
Date extracted	-	06/11/2013	06/11/2013
Date analysed	-	06/11/2013	06/11/2013
Arochlor 1016	mg/kg	<0.1	<0.1
Arochlor 1221	mg/kg	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1
Surrogate TCLMX	%	81	81

Acid Extractable metals in soil			
Our Reference:	UNITS	99986-5	99986-7
Your Reference	----------	QS001A	QS002A
Depth	----------	-	-
Date Sampled		30/10/2013	30/10/2013
Type of sample		Soil	Soil
Date digested	-	06/11/2013	06/11/2013
Date analysed	-	06/11/2013	06/11/2013
Arsenic	mg/kg	5	12
Cadmium	mg/kg	<0.4	<0.4
Chromium	mg/kg	11	15
Copper	mg/kg	18	28
Lead	mg/kg	14	26
Mercury	mg/kg	0.2	<0.1
Nickel	mg/kg	5	16
Zinc	mg/kg	25	65

Moisture			
Our Reference:	UNITS	99986-5	99986-7
Your Reference	----------	QS001A	QS002A
Depth	----------	-	-
Date Sampled		30/10/2013	30/10/2013
Type of sample		Soil	Soil
Date prepared	-	06/11/2013	06/11/2013
Date analysed	-	07/11/2013	07/11/2013
Moisture	%	9.6	13

Asbestos ID - soils WA					
Our Reference:	UNITS	99986-1	99986-2	99986-3	99986-8
Your Reference	----------	TP02	TP05	TP05	TP10
Depth	----------	0.1-0.2	0.1-0.2	0.1-0.2	0.1-0.2
Date Sampled		30/10/2013	30/10/2013	30/10/2013	30/10/2013
Type of sample		Soil	Soil	Soil	Soil
Date analysed	-	11/11/2013	11/11/2013	11/11/2013	11/11/2013
Sample mass tested	g	271.06g	376.12g	461.53g	506.98g
Sample Description	-	Brown fine-grained clayey soil & rocks	Brown fine-grained clayey soil & rocks	Brown fine-grained clayey soil & rocks	Brown fine-grained clayey soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg	No asbestos detected at reporting limit of 0.1g/kg	No asbestos detected at reporting limit of 0.1g/kg	No asbestos detected at reporting limit of 0.1g/kg
Trace Analysis	-	No respirable fibres detected	No respirable fibres detected	No respirable fibres detected	No respirable fibres detected

Asbestos ID - soils				
Our Reference:	UNITS	99986-4	99986-5	99986-6
Your Reference	----------	QS001	QS001A	TP08
Depth	----------	-	-	0.1-0.2
Date Sampled		30/10/2013	30/10/2013	30/10/2013
Type of sample		Soil	Soil	Soil
Date analysed	-	11/11/2013	11/11/2013	11/11/2013
Sample mass tested	g	Approx 40g	Approx 40g	Approx 40g
Sample Description	-	Brown coarse-grained soil	Brown coarse-grained soil	Brown fine-grained soil
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg	No asbestos detected at reporting limit of 0.1g/kg	No asbestos detected at reporting limit of 0.1g/kg
Trace Analysis	-	No respirable fibres detected	No respirable fibres detected	No respirable fibres detected

Method ID	Methodology Summary
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note Naphthalene is determined from the VOC analysis.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Inorg-008	Moisture content determined by heating at 105+/-5 deg C for a minimum of 12 hours.
ASB-003	Asbestos ID - Minimum 500mL soil sample was analysed as recommended by "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 as per AS4964-2004.
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.

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			06/11/2013	[NT]	[NT]	LCS-4	06/11/2013
Date analysed	-			09/11/2013	[NT]	[NT]	LCS-4	09/11/2013
TRHC$_6$ - C$_9$	mg/kg	25	Org-016	<25	[NT]	[NT]	LCS-4	94%
TRHC$_6$ - C$_{10}$	mg/kg	25	Org-016	<25	[NT]	[NT]	LCS-4	94%
Benzene	mg/kg	0.2	Org-016	<0.2	[NT]	[NT]	LCS-4	105%
Toluene	mg/kg	0.5	Org-016	<0.5	[NT]	[NT]	LCS-4	96%
Ethylbenzene	mg/kg	1	Org-016	<1	[NT]	[NT]	LCS-4	90%
m+p-xylene	mg/kg	2	Org-016	<2	[NT]	[NT]	LCS-4	91%
o-Xylene	mg/kg	1	Org-016	<1	[NT]	[NT]	LCS-4	90%
naphthalene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%		Org-016	108	[NT]	[NT]	LCS-4	101%

QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			06/11/2013	[NT]	[NT]	LCS-4	06/11/2013
Date analysed	-			07/11/2013	[NT]	[NT]	LCS-4	07/11/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	50	Org-003	<50	[NT]	[NT]	LCS-4	110%
TRHC$_{15}$ - C$_{28}$	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-4	115%
TRHC$_{29}$ - C$_{36}$	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-4	134%
TRH>C$_{10}$-C$_{16}$	mg/kg	50	Org-003	<50	[NT]	[NT]	LCS-4	110%
TRH>C$_{16}$-C$_{34}$	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-4	115%
TRH>C$_{34}$-C$_{40}$	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-4	134%
Surrogate o-Terphenyl	%		Org-003	96	[NT]	[NT]	LCS-4	116%

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			06/11/2013	[NT]	[NT]	LCS-4	06/11/2013
Date analysed	-			07/11/2013	[NT]	[NT]	LCS-4	07/11/2013
Naphthalene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-4	103%
Acenaphthylene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-4	101%
Phenanthrene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-4	99%
Anthracene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-4	100%

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Pyrene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-4	101%
Benzo(a)anthracene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-4	90%
Benzo(b+k)fluoranthene	mg/kg	0.2	Org-012 subset	<0.2	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	0.05	Org-012 subset	<0.05	[NT]	[NT]	LCS-4	94%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012 subset	96	[NT]	[NT]	LCS-4	96%
QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			06/11/2013	[NT]	[NT]	LCS-4	06/11/2013
Date analysed	-			06/11/2013	[NT]	[NT]	LCS-4	06/11/2013
HCB	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-4	84%
gamma-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
beta-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-4	92%
Heptachlor	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-4	86%
delta-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-4	87%
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-4	89%
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
pp-DDE	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-4	99%
Dieldrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-4	90%
Endrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-4	82%
pp-DDD	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-4	107%
Endosulfan II	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
pp-DDT	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-4	90%
Methoxychlor	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate TCMX	%		Org-005	106	[NT]	[NT]	LCS-4	80%

QUALITY CONTROL PCBs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			06/11/2013	[NT]	[NT]	LCS-4	06/11/2013
Date analysed	-			06/11/2013	[NT]	[NT]	LCS-4	06/11/2013
Arochlor 1016	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1221	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1232	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1242	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1248	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1254	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	LCS-4	101%
Arochlor 1260	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate TCLMX	%		Org-006	106	[NT]	[NT]	LCS-4	74%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date digested	-			06/11/2013	[NT]	[NT]	LCS-8	06/11/2013
Date analysed	-			06/11/2013	[NT]	[NT]	LCS-8	06/11/2013
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	[NT]	[NT]	LCS-8	98%
Cadmium	mg/kg	0.4	Metals-020 ICP-AES	<0.4	[NT]	[NT]	LCS-8	106%
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	LCS-8	101%
Copper	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	LCS-8	99%
Lead	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	LCS-8	99%
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	[NT]	[NT]	LCS-8	97%
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	LCS-8	101%
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	LCS-8	106%

QUALITY CONTROL Moisture	UNITS	PQL	METHOD	Blank
Date prepared	-			[NT]
Date analysed	-			[NT]
Moisture	%	0.1	Inorg-008	[NT]
QUALITY CONTROL Asbestos ID - soils WA	UNITS	PQL	METHOD	Blank
Date analysed	-			[NT]
QUALITY CONTROL Asbestos ID - soils	UNITS	PQL	METHOD	Blank
Date analysed	-			[NT]

Report Comments:

This report is consistent with the analytical procedures and reporting recommendations in the Western Australian Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009.
Note: All samples analysed as received. However, samples are below the minimum 500mL sample volume as per Western Australia's DOH guidelines.

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

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NA: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	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.

PICKFORD & RHYDER CONSULTING PTY LTD
ABN 17 105 546 076
Occupational Hygiene Measurements and Solutions.

PO Box 1422 Lane Cove 1595
Rear - 244 Burns Bay Road
Lane Cove NSW Australia
Phone: (02) 9418 9151
Fax: (02) 9418 9150

7 November 2013

JBS&G Pty Ltd
Level 1
50 Margaret Street
SYDNEY NSW 2000

CERTIFICATE OF ANALYSIS – ASBESTOS IDENTIFICATION

YOUR REFERENCE/JOB No: 43008
TYPE OF SAMPLES: Bulk samples - as received from Envirolab Services
SITE LOCATION: Urban Growth
DATE SAMPLED: not specified **DATE RECEIVED:** 5 November 2013
OUR REFERENCE: 76899-ID

TEST METHOD: Soil samples examined by Stereomicroscopy and Polarized Light Microscopy (with Dispersion Staining) in accordance with AS 4964-2004: - 'Method for the qualitative identification of asbestos in bulk samples' as outlined in Laboratory Method ID/1. The Reporting Limit for the results in this Certificate is numerically equal to the lowest detection limit of 0.1 g/kg. Trace asbestos analysis has been conducted, which is generally designed to detect 'respirable' asbestos fibres (i.e. less than 3 micrometres in width) distributed throughout the sample.

Sample No	*Lab No*	*Sample Information*	*Analysis Result*	*Description*
QS004A	76899	Soil sample as received	no asbestos detected	The sample was a brown clumpy soil with plant matter of total approximate weight 113 g, in which organic fibres were detected. No asbestos fibres were detected or found at the Reporting Limit of 0.1g/kg in the sample.

All sampling and site work has been undertaken by the client - the analytical procedures and results reported on this Certificate have been conducted by Pickford & Rhyder Consulting.

Sampling is not covered by the scope of accreditation.

Analysed and reported by:

Gary Conaty,
Approved Identifier and Signatory.

NATA
ACCREDITED FOR TECHNICAL COMPETENCE

Accreditation number 2515

Lab No 76899

tharding@jbsg.com.au
ewu@jbsg.com.au
mdelandro@jbsg.com.au

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 43008	LABORATORY BATCH NO.
PROJECT NAME: Urban Growth	SAMPLERS EC & MP
SEND REPORT TO: THarding — SEND INVOICE TO: [illegible]@jbsg.com.au	PHONE: 02 82450300 EMAIL:
DATE NEEDED BY: 5 day	QC LEVEL:

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	TPH/BTEX	PAHs	TPH aliph/arom	TPH silica gel	Fe	CEC	ASIP	pH	Biological	Nutrients	Ammonia	PCB/OCPs	organic matter	asbestos		NOTES
TP35 0.1-0.2	[illegible]	1/11/13																				
Rinsate 2	S	↓				X	X	X										X				
Trip S	W	29/10/13					X															
Trip B	W	29/10/13					X															
TP18 0.4-0.5																						
~~TP[illegible] 0.1-0.2~~																						
TP29 0.9-1																						
QS004						X	X	X										X				
QS004A						X	X	X										X				Send to Envirolab.
QS004A																				X		Send to Pickford

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: Ellen DATE: 01/11/13 17:45 pm	COOLER SEAL – Yes....... No .... Intact .... Broken ....
OF: JBS&G	TRANSPORT CO.	OF: Envirolab [illegible]	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

JM / 5/11/13, 1015.

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: Tom Harding, Ellen Luu

Sample log in details:

Your reference:	**43008, Urban Growth**
Envirolab Reference:	**100099**
Date received:	04/11/2013
Date results expected to be reported:	**11/11/13**

Samples received in appropriate condition for analysis:	YES
No. of samples provided	6 Soils
Turnaround time requested:	Standard
Temperature on receipt (°C)	10.0
Cooling Method:	Ice Pack
Sampling Date Provided:	YES

Comments:

Samples will be held for 1 month for water samples and 2 months for soil samples from date of receipt of samples.

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

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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: T Harding

Sample log in details:

Your reference:	**43008, Urban Growth**
Envirolab Reference:	**100279**
Date received:	05/11/2013
Date results expected to be reported:	**12/11/13**

Samples received in appropriate condition for analysis:	YES
No. of samples provided	2 Soils
Turnaround time requested:	Standard
Temperature on receipt (°C)	14.1
Cooling Method:	Ice Pack
Sampling Date Provided:	YES

Comments:

Samples will be held for 1 month for water samples and 2 months for soil samples from date of receipt of samples.

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

Envirolab Services Pty Ltd
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12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
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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: Tom Harding, Ellen Luu

Sample log in details:

Your reference:	**43008, Urban Growth**
Envirolab Reference:	**99986**
Date received:	01/11/13
Date results expected to be reported:	**12/11/13**

Samples received in appropriate condition for analysis:	YES
No. of samples provided	8 soils
Turnaround time requested:	Standard
Temperature on receipt (°C)	16.5
Cooling Method:	Ice Pack
Sampling Date Provided:	YES

Comments:

Samples will be held for 1 month for water samples and 2 months for soil samples from date of receipt of samples.

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

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
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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: T Harding, T Creese

Sample log in details:

Your reference:	**43109, Waterloo**
Envirolab Reference:	**99993**
Date received:	01/11/13
Date results expected to be reported:	**8/11/13**

Samples received in appropriate condition for analysis:	YES
No. of samples provided	49 Soils
Turnaround time requested:	Standard
Temperature on receipt (°C)	11.5
Cooling Method:	Ice
Sampling Date Provided:	YES

Comments:

Samples will be held for 1 month for water samples and 2 months for soil samples from date of receipt of samples.

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

eurofins | mgt

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

Attention: **Michelle Battam**

Report **398367-S**
Client Reference EXTERNAL: URBAN GROWTH 43008
Received Date Oct 31, 2013

Client Sample ID			**TP01 1.9-2.0**	**TP04 3.6-3.7**	**TP09 0.1-0.2**
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S13-No00922**	**S13-No00923**	**S13-No00924**
Date Sampled			**Oct 30, 2013**	**Oct 30, 2013**	**Oct 30, 2013**
Test/Reference	LOR	Unit			
Enteric Viruses Presence/Absence (Adenovirus Enterovirus and Reovirus)			see attached	see attached	see attached
Helminth Ova			see attached	see attached	see attached

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
Helminth Ova	Sydney	Nov 01, 2013	0 Day

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F6, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Oct 31, 2013 11:20 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	398367	**Due:**	Nov 8, 2013
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Thomas Harding
Client Job No.:	EXTERNAL: URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					Enteric Viruses Presence/Absence (Adenovirus Enterovirus and Reovirus)	Helminth Ova
Laboratory where analysis is conducted						
Melbourne Laboratory - NATA Site # 1254 & 14271						
Sydney Laboratory - NATA Site # 18217						
Brisbane Laboratory - NATA Site # 20794						
External Laboratory					X	X
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
TP01 1.9-2.0	Oct 30, 2013		Soil	S13-No00922	X	X
TP04 3.6-3.7	Oct 30, 2013		Soil	S13-No00923	X	X
TP09 0.1-0.2	Oct 30, 2013		Soil	S13-No00924	X	X

Eurofins | mgt Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

UNITS

mg/kg: milligrams per Kilogram

ug/l: micrograms per litre

ppb: Parts per billion

org/100ml: Organisms per 100 millilitres

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

mg/l: milligrams per litre

ppm: Parts per million

%: Percentage

NTU: Units

TERMS

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

QC - ACCEPTANCE CRITERIA

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

Results <10 times the LOR : No Limit

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

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

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

QC DATA GENERAL COMMENTS

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

Comments

Viruses analysed by Environmental Pathogens

Sample Integrity

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

Authorised By

Jean Heng Client Services

Dr. Bob Symons
Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

thardinge@jbsg.com.au
elui@jbsg.com.au
mdelandro@jbsg.com.au

PO 1 of 3

#398113

JBS&G

CHAIN OF CUSTODY

PROJECT NO.: 43008
PROJECT NAME: Urban Growth
SEND REPORT TO:
SEND INVOICE TO: gis.jbsg.com.au
DATE NEEDED BY: Standard
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

LABORATORY BATCH NO:
SAMPLERS EL & MD.
PHONE: 02 82450300 EMAIL:
QC LEVEL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	TRH/BTEX	TPH aph/arom	TPH Silica Gel	Biologicals	Nutrients	PAHs	Asbestos	PCB/OCP	ASLP	EC	pH	PH	CEC	organic matter	ammonia	NOTES
TP01 0.1-0.2	S	30/10/13				X				X		X										
TP01 0.6-0.7						X						X				X	X	X	X	X		TPH aliphatic/aromatic split
TP01 1.4-1.5																						
TP01 1.9-2.0										X						X	X	X	X	X		
TP02 0.1-0.2				Combo 5A →		X	X					X	X	X		X	X	X	X	X		Biologicals = E coli, Salmonella, Faecal coliforms
TP02 0.4-0.5																						
TP02 0.9-1.0																						
TP02 1.4-1.5																						
TP02 3.4-3.5																						
TP03 0.1-0.2						X						X	X	X								
TP03 0.4-0.5																						
TP03 1.9-2.0																						
TP03 4.3-4.4																						
TP04 0.1-0.2				Combo 5 →		X	X					X		X								
TP04 0.6-0.7																						
TP04 1.2-1.3						X	X				X	X									X	Ammonia odour.
TP04 3.6-3.7	↓	↓	12pm				X			X		X										bacteria.

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: M. Delandro DATE: 30.10.13	CONSIGNMENT NOTE NO.	NAME: Ellen Ng DATE: 31/10/13	COOLER SEAL – Yes / No Intact / Broken
OF: JBS&G	TRANSPORT CO.	OF: EP Mgt 11:20	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

EXTERNAL: 398367

tharding@jbsg.com.au
elliu@jbsg.com.au
mdelandro@jbsg.com.au

Pg 2 of 3

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 43005
PROJECT NAME: Urban Growth
SEND REPORT TO:
SEND INVOICE TO:
DATE NEEDED BY:
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

LABORATORY BATCH NO.
SAMPLERS EL & MD
PHONE: 02 82450300
EMAIL:
QC LEVEL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	TPH/BTEX	PAHS	TPH Aliph/Arom	TPH Silica	Biological	Nutrients	Asbestos	PCB/OCPS	AsIP	EC	Cl	pH	CEC	Organic matter	Ammonia	NOTES
TP05 0.1-0.2	S	30/10/13				X		X					X									
TP05 0.6-0.7																						
TP05 1.1-1.2																						
TP05 3.9-4.0																						
QS001				Combo 5A →		X	X	X					X	X								
QS001A						X	X	X					X	X								SECONDARY LAB
TP06 0.1-0.2						X		X						X								
TP06 0.4-0.5																						
TP06 1.4-1.5																						
TP06 2.4-2.5																						
TP07 0.1-0.2						X		X														
TP07 0.4-0.5																						
TP07 1.4-1.5																						
TP07 3.4-3.5				Combo 2 →		X	X	X														
TP08 0.1-0.2						X		X					X			X	X	X	X	X		
TP08 1.5-1.6																X	X	X	X	X		
TP08 2.4-2.5																						

RELINQUISHED BY:
NAME: M. Delandro DATE: 30/10/13
OF: JBS&G
NAME: DATE:
OF:

METHOD OF SHIPMENT:
CONSIGNMENT NOTE NO.
TRANSPORT CO.
CONSIGNMENT NOTE NO.
TRANSPORT CO

RECEIVED BY:
NAME: Elan Ng DATE: 31/10/13 11:20
OF: Eflingt
NAME: DATE:
OF:

FOR RECEIVING LAB USE ONLY:
COOLER SEAL – Yes...... No .... Intact .... Broken ....
COOLER TEMP ...... deg C
COOLER SEAL – Yes...... No .... Intact .... Broken ....
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

thardinq@jbsg.com.au
eliu@jbsg.com.au
mdelandro@jbsg.com.au

pg 3 of 3

#398113

JBS&G

CHAIN OF CUSTODY

PROJECT NO.: 43005	LABORATORY BATCH NO.
PROJECT NAME: Urban Growth	SAMPLERS EL + MP.
SEND REPORT TO: SEND INVOICE TO: gng@gmdition	PHONE: 02 82450300 EMAIL:
DATE NEEDED BY:	QC LEVEL:
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:	

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	TPH/BTEX	TPH aliph/arom	TPH Silica Gel	Biological	nutrients	PAHs	asbestos	PCB/OPPs	ASLP	EC	Fe	pH	CEC	organic matter	ammonia	NOTES
TP09 0.1-0.2	S	30/10/13				X	X	X	X	X		X		X								
TP09 0.4-0.5	↓	↓																				
TP09 1.2-1.3																						
QS002				Combo 2 →		X	X					X										
QS002A.						X	X					X										
TP[illegible] 0.1-0.2						X						X	X									SECONDARY LAB.
TP[illegible] 0.4-0.5																						
TP10 2.3-2.4																						
TP11 0.1-0.2						X						X		X								
TP11 0.6-0.7																						
TP11 1.9-2.0						X	X															
TP09 1.5-1.6.	↓	↓																				
TB		29/10/13																				
TS	↓.	29/10/13.																				

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: M.Delandro DATE: 30/10/13 OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: Ellen Ng DATE: 31/10/13 11:20 OF: Envirolab [illegible]	COOLER SEAL – Yes......: No .... Intact .... Broken .... COOLER TEMP ...... deg C
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: DATE: OF:	COOLER SEAL – Yes...... No .... Intact .... Broken .... COOLER TEMP ...... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; HC = 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 FormsO13 – Chain of Custody

EXTERNAL # 398367

From: Thomas Harding [mailto:THarding@jbsg.com.au]
Sent: Friday, 1 November 2013 8:17 AM
To: Jean Heng
Subject: Ed Park

Jean,

The auditor works these works would like to include the following analysis for all the biological works:

- enteric viruses and helminth ova

Apologies, we were only told this morning.

Thank you

Tom

JBS&G # 398367

Tom Harding | Hydrogeologist | JBS&G
Sydney | Melbourne | Adelaide | Perth | Brisbane
Level 1, 50 Margaret Street Sydney NSW 2000
T: 02 8245 0300 | M: 0418 560 381 | www.jbsg.com.au
Contaminated Land | Groundwater Remediation | Auditing and Compliance | Assessments and Approvals | Occupational Hygiene and Monitoring

Sefton McGraw
Eurofins Environment Testing Australia P/L
PO Box 276
Oakleigh VIC 3166
ph 03 95647055 fax 03 95647190

Final Report – 05/12/13

Three biosolid samples were received on November 14 and analysed for Helminths as requested.

For Helminth detection, the sample was dissolved in buffer and a flotation method was used to recover helminth ova. For the detection of helminth ova/eggs (including Taenia sp., & Ascaris sp.) the results are expressed in ova/cysts per volume of sample tested.

All samples are processed according to methods WI 300, WI 429, WI 500-561 inclusive as appropriate. All controls were valid. (<1 denotes viruses or helminths not detected.)

The results are shown in the following tables.

RESULTS

Helminths Detected

Sample Identification	Volume Tested	Date Sampled	Laboratory Number	ova (eggs) detected	
				Taenia ova	Ascaris ova
No00922	20g	04/11/13	13-0568	<1 per 20g	<1 per 20g
No00923	20g	04/11/13	13-0569	<1 per 20g	<1 per 20g
No00924	20g	04/11/13	13-0570	<1 per 20g	<1 per 20g

Dr. G. S. Grohmann
Principal Consultant

eurofins | mgt

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

Attention: **Michelle Delandro**

Report **398304-S**
Client Reference EXTERNAL: URBAN GROWTH 43008
Received Date Nov 01, 2013

Client Sample ID			**TP16 2.7-2.8**	**TP26 0.9-1.0**	**TP18 1.0-1.1**	**TP18 1.8-1.9**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S13-No00568**	**S13-No00569**	**S13-No00570**	**S13-No00571**
Date Sampled			**Oct 31, 2013**	**Oct 31, 2013**	**Oct 31, 2013**	**Oct 31, 2013**
Test/Reference	LOR	Unit				
Enteric Viruses Presence/Absence (Adenovirus Enterovirus and Reovirus)						
Helminth Ova						

Client Sample ID			**TP19 1.9-2.0**	**TP17 0.9-1.0**	**TP17 1.8-1.9**
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S13-No00572**	**S13-No00573**	**S13-No00574**
Date Sampled			**Oct 31, 2013**	**Oct 31, 2013**	**Oct 31, 2013**
Test/Reference	LOR	Unit			
Enteric Viruses Presence/Absence (Adenovirus Enterovirus and Reovirus)					
Helminth Ova					

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
Helminth Ova	Sydney	Nov 01, 2013	0 Day

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F6, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name:	JBS & G (NSW & WA) Pty Ltd	**Order No.:**		**Received:**	Nov 1, 2013 9:52 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	398304	**Due:**	Nov 15, 2013
		Phone:	02 8245 0300	**Priority:**	10 Day
		Fax:		**Contact Name:**	Thomas Harding
Client Job No.:	EXTERNAL: URBAN GROWTH 43008				

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					Enteric Viruses Presence/Absence (Adenovirus Enterovirus and Reovirus)	Helminth Ova
Laboratory where analysis is conducted						
Melbourne Laboratory - NATA Site # 1254 & 14271						
Sydney Laboratory - NATA Site # 18217						
Brisbane Laboratory - NATA Site # 20794						
External Laboratory					X	X
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
TP16 2.7-2.8	Oct 31, 2013		Soil	S13-No00568	X	X
TP26 0.9-1.0	Oct 31, 2013		Soil	S13-No00569	X	X
TP18 1.0-1.1	Oct 31, 2013		Soil	S13-No00570	X	X
TP18 1.8-1.9	Oct 31, 2013		Soil	S13-No00571	X	X
TP19 1.9-2.0	Oct 31, 2013		Soil	S13-No00572	X	X
TP17 0.9-1.0	Oct 31, 2013		Soil	S13-No00573	X	X
TP17 1.8-1.9	Oct 31, 2013		Soil	S13-No00574	X	X

Eurofins | mgt Internal Quality Control Review and Glossary

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

mg/l: milligrams per litre

ppm: Parts per million

%: Percentage

NTU: Units

TERMS

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RPD	Relative Percent Difference between two Duplicate pieces of analysis.
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CRM	Certified Reference Material - reported as percent recovery
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Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
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Batch SPIKE	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
ASLP	Australian Standard Leaching Procedure (AS4439.3)
TCLP	Toxicity Characteristic Leaching Procedure
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CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within
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2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data.

Comments

Helminth ova and Enteric viruses analysed by Environmental Pathogens

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	Yes

Authorised By

Jean Heng Client Services

Dr. Bob Symons
Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

tharding@jbsg.com.au
cluu@jbsg.com.au
mdelandro@jbsg.com.au

1 of 4 #398243 #398304

JBS&G

CHAIN OF CUSTODY

PROJECT NO.: 43008
PROJECT NAME: Urban Growth
SEND REPORT TO: SEND INVOICE TO: ap@jbsg.com.au
DATE NEEDED BY: Standard
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

LABORATORY BATCH NO.
SAMPLERS RC & MD
PHONE: 02 82450300 EMAIL:
QC LEVEL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	TRH/BTEX	TRH aliph/arom	TRH silica gel	Biological	nutrients	PAHs	asbestos	PCBs/OCPs	ASLP	EC	Fe	pH	CEC	organic matter	Ammonia	NOTES
TP16 0.1-0.2	S	31/10/13				X																
TP16 0.5-1.0						X																
TP16 1.4-1.5																						
TP16 2.7-2.5										X												
TP15 0.1-0.2						X																
TP15 0.4-0.5						X																
TP15 1.4-1.5																						
TP14 0.1-0.2						X	X		X			X	X	X								
TP14 0.4-0.5																						
TP14 0.9-1.0																						
TP14 1.4-1.5						X																
TP14 2.5-2.7																						
TP13 0.1-0.2																						
TP13 0.5-0.6																						
TP13 1.0-1.1																						
TP13 2.1-2.2																						
TP12 0.1-0.2						X	X		X			X	X	X								
TP12 0.7-0.8	↓	↓				X																

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL - Yes..... No ...... Intact .... Broken ....
OF: JBS&G	TRANSPORT CO.	OF:	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

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CHAIN OF COUNTERSTODY

PROJECT NO.: 43008
PROJECT NAME: Urban Growth
SEND REPORT TO:
SEND INVOICE TO: gng@jbsg.com.au
DATE NEEDED BY: Standard
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

LABORATORY BATCH NO.
SAMPLERS
PHONE: 02 82450300
EMAIL:
QC LEVEL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	TPH/BTEX	TPH alph/arom	TPH Silica gel	Biological	nutrients	PAHs	asbestos	PCB/OCPs	ASLP	EC	FE	pH	CEC	Organic Matter	ammonia	NOTES
TP12 1.1-1.2	S	31/10/13																				
QS003																						
QS003A																						
TP26 0.1-0.2																						
TP26 0.5-0.6						X																
TP26 0.9-1.0										X												
TP26 2.6-2.7																						
TP25 0.1-0.2																						
TP25 0.4-0.5						X	X					X	X	X								
TP25 1.1-1.2																						
TP25 3.3-3.4																						
TP22 0.1-0.2						X	X					X	X	X								
TP22 0.9-1.0						X																
TP22 1.7-1.8																						
TP22 2.7-2.8																						
TP18 1.6-1.1						X	X	X	X	X	X											
TP18 1.8-1.9						X	X	X	X	X	X											
TP22 0.4-0.5	↓	↓																				

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes...... No .... Intact .... Broken ....
OF: JBS&G	TRANSPORT CO.	OF:	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

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3 of 4

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JBS&G

CHAIN OF CUSTODY

PROJECT NO.: 43008	LABORATORY BATCH NO.:
PROJECT NAME: Urban Growth	SAMPLERS: EL & MD
SEND REPORT TO:	SEND INVOICE TO: gng@jbsg.com.au
DATE NEEDED BY: Standard	PHONE: 02 82450300 EMAIL:
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:	QC LEVEL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	TPH/BTEX	TPH Chromatogram TPH Silica gel	Pesticides	Nutrients	PAHs	Asbestos	PCBs/OCPs	ASLP	EC	Fe	PH	CEC	Organic Matter	Ammonia	NOTES
TP20 0.1-0.2	S	31/10/13																			
TP20 0.4-0.5						x	x	x			x		x								
TP20 2.4-2.5																					
TP20 3.4-3.5																					
TP21 0.1-0.2						x	x				x		x								
TP21 0.4-0.5						x															
TP21 1.4-1.5																					
TP21 2.9-3.0																					
TP21 3.4-3.5																					
TP19 0.1-0.2						x					x										
TP19 0.4-0.5						x	x	x	x		x	x									
TP19 1.0-1.5																					
TP19 3.9-4.0																					
TP17 0.9-1.0																					
TP17 1.8-1.9																					
TP31 0.1-0.2						x					x										
TP31 0.9-1.0																					
TP31 1.4-1.5	↓	↓																			

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	OF:	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

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tharding@jbsg.com.au
ellul@jbsg.com.au
mdellandro@jbsg.com.au

CHAIN OF CUSTODY

PROJECT NO.: 43006
PROJECT NAME: Urban Growth
SEND REPORT TO:
SEND INVOICE TO: gng@jbsg.com.au
DATE NEEDED BY: Standard
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

LABORATORY BATCH NO.
SAMPLERS: EL * MD.
PHONE: 02 82450300
EMAIL:
QC LEVEL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	TPH/BTEX	TPH aliph/arom	TPH silica gel	Biological	nutrients	PAHs	asbestos	PCBs/OCPs	ASL P	EC	Fe	pH	CEC	organic matter	ammonia	NOTES
TP30_0.1-0.2	S	30/10/13				X																
TP30_0.9-1.0	↓	↓																				
TP30_1.5-1.6	↓	↓																				
Rinsate1	W	31/10/13				X	X					X		X								
Trip S	W	29/10/13					X															
Trip B	W	29/10/13					X															
TP19 1.9-2.0	S	29/10/13								X						X	X	X	X	X		
TP17 0.9-1.0						X	X	X	X	X	X											
TP17-1.8-1.9						X	X	X	X	X	X											

RELINQUISHED BY:
NAME: DATE:
OF: JBS&G
NAME: DATE:
OF:

METHOD OF SHIPMENT:
CONSIGNMENT NOTE NO.
TRANSPORT CO.
CONSIGNMENT NOTE NO.
TRANSPORT CO

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OF:
NAME: DATE:
OF:

FOR RECEIVING LAB USE ONLY:
COOLER SEAL – Yes....... No .... Intact .... Broken ....
COOLER TEMP ...... deg C
COOLER SEAL – Yes....... No .... Intact .... Broken ....
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

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Sefton McGraw
Eurofins Environment Testing Australia P/L
PO Box 276
Oakleigh VIC 3166
ph 03 95647055 fax 03 95647190

Final Report – 04/12/13

Four biosolid samples were received on November 14 and analysed for Viruses and Helminths as requested.

For Helminth detection, the sample was dissolved in buffer and a flotation method was used to recover helminth ova. For the detection of helminth ova/eggs (including Taenia sp., & Ascaris sp.) the results are expressed in ova/cysts per volume of sample tested.

All samples are processed according to methods WI 300, WI 429, WI 500-561 inclusive as appropriate. All controls were valid. (<1 denotes viruses or helminths not detected.)

The results are shown in the following tables.

RESULTS

Helminths Detected

Sample Identification	Volume Tested	Date Sampled	Laboratory Number	ova (eggs) detected	
				Taenia ova	Ascaris ova
No00568	20g	01/11/13	13-0557	<1 per 20g	<1 per 20g
No00569	20g	01/11/13	13-0558	<1 per 20g	<1 per 20g
No00570	20g	01/11/13	13-0559	<1 per 20g	<1 per 20g
No00571	20g	01/11/13	13-0560	<1 per 20g	<1 per 20g
No00572	20g	01/11/13	13-0561	<1 per 20g	<1 per 20g
No00573	20g	01/11/13	13-0562	<1 per 20g	<1 per 20g
No00574	20g	01/11/13	13-0563	<1 per 20g	<1 per 20g

Dr. G. S. Grohmann
Principal Consultant

Appendix E – Geotechnical Investigation

Document Distribution

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Document Status

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		Name	Name	Signature	Date
A	Michelle Battam	Matthew Bennett	Draft for client & auditor review	-	10/12/2013