



Detailed Site Investigation, Finucane Reserve, 1 Finucane Crescent, Matraville NSW

Randwick City Council

Report

JBS&G 68409 | 164,716

5 March 2025



Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the '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 before sample receipt deadlines as stated on the SRA.

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

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

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is seven days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units

mg/kg: milligrams per kilogram	mg/L: milligrams per litre	ppm: parts per million
µg/L: micrograms per litre	ppb: parts per billion	%: Percentage
org/100 mL: Organisms per 100 millilitres	NTU: Nephelometric Turbidity Units	MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony Forming Unit	Colour: Pt-Co Units (CU)	

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (<i>bis</i> -tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 6.0
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should only be used as a guide and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented.

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%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as 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 are not data from your samples.
3. 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.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
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	
TRH C6-C10	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							
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	
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-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
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-HCH (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	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	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	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	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&i)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							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	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-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	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	
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-HCH (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	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Total PCB*	mg/kg	< 0.1			0.1	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	109			70-130	Pass	
TRH C10-C14	%	103			70-130	Pass	
TRH C6-C10	%	108			70-130	Pass	
TRH >C10-C16	%	95			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	105			70-130	Pass	
Toluene	%	106			70-130	Pass	
Ethylbenzene	%	107			70-130	Pass	
m&p-Xylenes	%	106			70-130	Pass	
o-Xylene	%	104			70-130	Pass	
Xylenes - Total*	%	105			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	110			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
4,4'-DDD	%	102			70-130	Pass	
4,4'-DDT	%	113			70-130	Pass	
a-HCH	%	81			70-130	Pass	
Endosulfan I	%	92			70-130	Pass	
Endosulfan II	%	90			70-130	Pass	
Endosulfan sulphate	%	102			70-130	Pass	
Endrin	%	102			70-130	Pass	
Endrin aldehyde	%	82			70-130	Pass	
g-HCH (Lindane)	%	83			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	78			70-130	Pass	
Acenaphthylene	%	77			70-130	Pass	
Anthracene	%	74			70-130	Pass	
Benzo(a)pyrene	%	71			70-130	Pass	
Benzo(b&j)fluoranthene	%	76			70-130	Pass	
Benzo(k)fluoranthene	%	78			70-130	Pass	
Chrysene	%	75			70-130	Pass	
Dibenz(a,h)anthracene	%	82			70-130	Pass	
Fluoranthene	%	72			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	75			70-130	Pass	
Phenanthrene	%	73			70-130	Pass	
Pyrene	%	72			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	81			70-130	Pass	
4,4'-DDE	%	76			70-130	Pass	
Aldrin	%	78			70-130	Pass	
b-HCH	%	77			70-130	Pass	
d-HCH	%	81			70-130	Pass	
Dieldrin	%	73			70-130	Pass	
Endrin ketone	%	73			70-130	Pass	
Heptachlor	%	81			70-130	Pass	
Heptachlor epoxide	%	73			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Hexachlorobenzene	%	83			70-130	Pass	
Methoxychlor	%	71			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1016	%	72			70-130	Pass	
Aroclor-1260	%	76			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	105			80-120	Pass	
Cadmium	%	102			80-120	Pass	
Chromium	%	101			80-120	Pass	
Copper	%	99			80-120	Pass	
Lead	%	109			80-120	Pass	
Mercury	%	100			80-120	Pass	
Nickel	%	100			80-120	Pass	
Zinc	%	101			80-120	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	109			70-130	Pass	
Acenaphthylene	%	115			70-130	Pass	
Anthracene	%	123			70-130	Pass	
Benz(a)anthracene	%	100			70-130	Pass	
Benzo(a)pyrene	%	105			70-130	Pass	
Benzo(b&j)fluoranthene	%	105			70-130	Pass	
Benzo(g,h,i)perylene	%	87			70-130	Pass	
Benzo(k)fluoranthene	%	114			70-130	Pass	
Chrysene	%	118			70-130	Pass	
Dibenz(a,h)anthracene	%	91			70-130	Pass	
Fluoranthene	%	124			70-130	Pass	
Fluorene	%	118			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	93			70-130	Pass	
Naphthalene	%	109			70-130	Pass	
Phenanthrene	%	112			70-130	Pass	
Pyrene	%	126			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	98			70-130	Pass	
Acenaphthylene	%	102			70-130	Pass	
Anthracene	%	106			70-130	Pass	
Benz(a)anthracene	%	98			70-130	Pass	
Benzo(a)pyrene	%	101			70-130	Pass	
Benzo(b&j)fluoranthene	%	104			70-130	Pass	
Benzo(g,h,i)perylene	%	105			70-130	Pass	
Benzo(k)fluoranthene	%	97			70-130	Pass	
Chrysene	%	94			70-130	Pass	
Dibenz(a,h)anthracene	%	105			70-130	Pass	
Fluoranthene	%	113			70-130	Pass	
Fluorene	%	107			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	104			70-130	Pass	
Naphthalene	%	93			70-130	Pass	
Phenanthrene	%	118			70-130	Pass	
Pyrene	%	113			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Aroclor-1016			%	92			70-130	Pass	
Aroclor-1260			%	102			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S25-Ja0001165	NCP	%	110			70-130	Pass	
TRH C6-C10	S25-Ja0001165	NCP	%	111			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S25-Ja0001165	NCP	%	98			70-130	Pass	
Toluene	S25-Ja0001165	NCP	%	105			70-130	Pass	
Ethylbenzene	S25-Ja0001165	NCP	%	107			70-130	Pass	
m&p-Xylenes	S25-Ja0001165	NCP	%	115			70-130	Pass	
o-Xylene	S25-Ja0001165	NCP	%	110			70-130	Pass	
Xylenes - Total*	S25-Ja0001165	NCP	%	113			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S25-Ja0001165	NCP	%	100			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S24-De0057343	NCP	%	72			70-130	Pass	
Anthracene	S24-De0057343	NCP	%	81			70-130	Pass	
Fluoranthene	S24-De0057343	NCP	%	74			70-130	Pass	
Fluorene	S24-De0057343	NCP	%	77			70-130	Pass	
Naphthalene	S24-De0057343	NCP	%	72			70-130	Pass	
Phenanthrene	S24-De0057343	NCP	%	71			70-130	Pass	
Pyrene	S24-De0057343	NCP	%	73			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4,4'-DDD	S24-De0057343	NCP	%	73			70-130	Pass	
Dieldrin	S24-De0057343	NCP	%	73			70-130	Pass	
Endrin	S24-De0057343	NCP	%	78			70-130	Pass	
Heptachlor epoxide	S24-De0057343	NCP	%	74			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S24-De0058939	CP	%	102			75-125	Pass	
Cadmium	S24-De0058939	CP	%	98			75-125	Pass	
Chromium	S24-De0058939	CP	%	118			75-125	Pass	
Copper	S24-De0058939	CP	%	94			75-125	Pass	
Lead	S24-De0058939	CP	%	101			75-125	Pass	
Mercury	S24-De0058939	CP	%	98			75-125	Pass	
Nickel	S24-De0058939	CP	%	117			75-125	Pass	
Zinc	S24-De0058939	CP	%	105			75-125	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C10-C14	S24-De0058953	CP	%	92			70-130	Pass	
TRH >C10-C16	S24-De0058953	CP	%	91			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthylene	S25-Ja0002659	NCP	%	80			70-130	Pass	
Benz(a)anthracene	S25-Ja0002659	NCP	%	80			70-130	Pass	
Benzo(a)pyrene	S25-Ja0002659	NCP	%	84			70-130	Pass	
Benzo(b&j)fluoranthene	S25-Ja0002659	NCP	%	80			70-130	Pass	
Benzo(g,h,i)perylene	S25-Ja0002659	NCP	%	86			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzo(k)fluoranthene	S25-Ja0002659	NCP	%	80			70-130	Pass	
Chrysene	S25-Ja0002659	NCP	%	80			70-130	Pass	
Dibenz(a,h)anthracene	S25-Ja0002659	NCP	%	89			70-130	Pass	
Indeno(1,2,3-cd)pyrene	S25-Ja0002659	NCP	%	86			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4,4'-DDT	S24-De0059090	NCP	%	90			70-130	Pass	
b-HCH	S24-De0059090	NCP	%	70			70-130	Pass	
Endosulfan II	S24-De0059090	NCP	%	93			70-130	Pass	
Endosulfan sulphate	S24-De0059090	NCP	%	91			70-130	Pass	
Endrin aldehyde	S24-De0059090	NCP	%	79			70-130	Pass	
Methoxychlor	S24-De0059090	NCP	%	94			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	S25-Ja0002659	NCP	%	87			70-130	Pass	
Aroclor-1260	S24-De0059090	NCP	%	88			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S24-De0058973	CP	%	75			70-130	Pass	
4,4'-DDE	S24-De0058973	CP	%	73			70-130	Pass	
Aldrin	S24-De0058973	CP	%	77			70-130	Pass	
d-HCH	S24-De0058973	CP	%	76			70-130	Pass	
Endosulfan I	S24-De0058973	CP	%	82			70-130	Pass	
Endrin ketone	S24-De0058973	CP	%	72			70-130	Pass	
Heptachlor	S24-De0058973	CP	%	77			70-130	Pass	
Hexachlorobenzene	S24-De0058973	CP	%	79			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	S24-De0058935	CP	mg/kg	4.5	5.0	9.0	30%	Pass	
Cadmium	S24-De0058935	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S24-De0058935	CP	mg/kg	18	12	36	30%	Fail	Q15
Copper	S24-De0058935	CP	mg/kg	10.0	15	40	30%	Fail	Q15
Lead	S24-De0058935	CP	mg/kg	30	35	16	30%	Pass	
Mercury	S24-De0058935	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S24-De0058935	CP	mg/kg	< 5	5.6	31	30%	Fail	Q15
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
a-HCH	S25-Ja0004507	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	S25-Ja0004507	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S24-De0058950	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S24-De0058950	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S24-De0058950	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S24-De0058950	CP	mg/kg	53	72	29	30%	Pass	
TRH C6-C10	S24-De0058950	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S24-De0058950	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S24-De0058950	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S24-De0058950	CP	mg/kg	< 100	< 100	<1	30%	Pass	

Duplicate								
BTX				Result 1	Result 2	RPD		
Benzene	S24-De0058950	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Toluene	S24-De0058950	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Ethylbenzene	S24-De0058950	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
m&p-Xylenes	S24-De0058950	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
o-Xylene	S24-De0058950	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Xylenes - Total*	S24-De0058950	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD		
Naphthalene	S24-De0058950	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	S24-De0058950	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	S24-De0058950	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	S24-De0058950	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	S24-De0058950	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	S24-De0058950	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	S24-De0058950	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	S24-De0058950	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	S24-De0058950	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	S24-De0058950	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	S24-De0058950	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	S24-De0058950	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	S24-De0058950	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	S24-De0058950	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	S24-De0058950	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	S24-De0058950	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	S24-De0058950	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	S24-De0058950	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4,4'-DDD	S24-De0058950	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDE	S24-De0058950	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	S24-De0058950	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	S24-De0058950	CP	mg/kg	< 0.05	0.05	25	30%	Pass
b-HCH	S24-De0058950	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	S24-De0058950	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	S24-De0058950	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	S24-De0058950	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	S24-De0058950	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	S24-De0058950	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	S24-De0058950	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	S24-De0058950	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	S24-De0058950	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	S24-De0058950	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	S24-De0058950	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	S24-De0058950	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	S24-De0058950	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	S24-De0058950	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	S24-De0058950	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	S24-De0058950	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	S24-De0058950	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	S24-De0058950	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass

Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1248	S24-De0058950	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	S24-De0058950	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	S24-De0058950	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	S24-De0058950	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Sample Properties				Result 1	Result 2	RPD		
% Moisture	S24-De0058950	CP	%	2.3	2.3	3.0	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C6-C9	S24-De0058953	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C6-C10	S24-De0058953	CP	mg/kg	< 20	< 20	<1	30%	Pass
Duplicate								
BTEX				Result 1	Result 2	RPD		
Benzene	S24-De0058953	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Toluene	S24-De0058953	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Ethylbenzene	S24-De0058953	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
m&p-Xylenes	S24-De0058953	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
o-Xylene	S24-De0058953	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Xylenes - Total*	S24-De0058953	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	S24-De0058966	CP	mg/kg	2.2	4.8	74	30%	Fail Q15
Cadmium	S24-De0058966	CP	mg/kg	< 0.4	0.8	84	30%	Fail Q15
Chromium	S24-De0058966	CP	mg/kg	9.3	51	140	30%	Fail Q15
Copper	S24-De0058966	CP	mg/kg	11	20	57	30%	Fail Q15
Lead	S24-De0058966	CP	mg/kg	75	84	11	30%	Pass
Mercury	S24-De0058966	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Nickel	S24-De0058966	CP	mg/kg	< 5	8.7	88	30%	Fail Q15
Zinc	S24-De0058966	CP	mg/kg	550	720	27	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C10-C14	S24-De0058968	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C15-C28	S24-De0058968	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH C29-C36	S24-De0058968	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C10-C16	S24-De0058968	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	S24-De0058968	CP	mg/kg	< 100	< 100	<1	30%	Pass
TRH >C34-C40	S24-De0058968	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	S24-De0058968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	S24-De0058968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	S24-De0058968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	S24-De0058968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	S24-De0058968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	S24-De0058968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	S24-De0058968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	S24-De0058968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	S24-De0058968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	S24-De0058968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	S24-De0058968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	S24-De0058968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	S24-De0058968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	S24-De0058968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	S24-De0058968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	S24-De0058968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	S24-De0058968	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4,4'-DDD	S24-De0058968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDE	S24-De0058968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	S24-De0058968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	S24-De0058968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	S24-De0058968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	S24-De0058968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	S24-De0058968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	S24-De0058968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	S24-De0058968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	S24-De0058968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	S24-De0058968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	S24-De0058968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	S24-De0058968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	S24-De0058968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	S24-De0058968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	S24-De0058968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	S24-De0058968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	S24-De0058968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	S24-De0058968	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	S24-De0058968	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	S24-De0058968	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	S24-De0058968	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	S24-De0058968	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	S24-De0058968	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	S24-De0058968	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	S24-De0058968	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
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
Q09	The Surrogate recovery is outside of the recommended acceptance criteria due to matrix interference. Acceptance criteria were met for all other QC
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

Andrew Black	Analytical Services Manager
Mickael Ros	Senior Analyst-Metal
Sayeed Abu	Senior Analyst-Asbestos
Ryan Phillips	Senior Analyst-Sample Properties
Raymond Siu	Senior Analyst-Organic
Raymond Siu	Senior Analyst-Volatile
Roopesh Rangarajan	Senior Analyst-Organic



Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please [click here](#).

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RE: Eurofins Sample Receipt Advice - Report 1174208 : Site MATRAVILLE (MATRAVILLE)

From Milad Noujaim <mnoujaim@jbsg.com.au>
Date Mon 06/01/2025 12:14 PM
To EET-ELVIS@eurofinsanz.com <EET-ELVIS@eurofinsanz.com>
Cc Finn Billyard-Currey <fbillyardcurrey@jbsg.com.au>; Andrew Black <Andrew.Black@eurofinsanz.com>

Unverified Sender: The sender of this email has not been verified. Review the content of the message carefully and verify the identity of the sender before acting on this email: replying, opening attachments or clicking links.

Hi Team,

Can we get the following analysis conducted:

- TP09 0-0.2 for asbestos NEPM
- Extra TP21_0.4-0.5 log as TP21_0-0.5 and analyse for asbestos NEPM
- Extra TP18_0-0.3 log as TP19_0-0.5 and analyse for asbestos NEPM

All asbestos analysis are NEPM/WA

Kind Regards,



Milad Noujaim | Senior Environmental Consultant | JBS&G

Gadigal Country | Level 8, 179 Elizabeth Street, Sydney, NSW

T: 02 8245 0300 | M: 0401 230 032 | E: mnoujaim@jbsg.com.au | W: jbsg.com.au | L: [Conditions and Limitations](#)

Exceptional Outcomes

From: Finn Billyard-Currey <fbillyardcurrey@jbsg.com.au>
Sent: Monday, 6 January 2025 9:31 AM
To: Milad Noujaim <mnoujaim@jbsg.com.au>
Subject: Fw: Eurofins Sample Receipt Advice - Report 1174208 : Site MATRAVILLE (MATRAVILLE)

From: Finn Billyard-Currey <fbillyardcurrey@jbsg.com.au>
Sent: Monday, January 6, 2025 9:30:26 am
To: EnviroSampleNSW@eurofinsanz.com <EnviroSampleNSW@eurofinsanz.com>
Subject: Re: Eurofins Sample Receipt Advice - Report 1174208 : Site MATRAVILLE (MATRAVILLE)

Could we get TP21_0.4-0.5 analysed for asbestos please? Thank you.

From: George Lewis <EET-ELVIS@eurofinsanz.com>
Sent: Friday, December 27, 2024 1:40:08 PM
To: Finn Billyard-Currey <fbillyardcurrey@jbsg.com.au>
Cc: JBSG Labresults <jbsglabresults@jbsg.com.au>; S&G Labresults <labresults@jbsg.com.au>
Subject: Eurofins Sample Receipt Advice - Report 1174208 : Site MATRAVILLE (MATRAVILLE)

[EXTERNAL EMAIL] Stop and think before opening attachments, clicking or responding.

Dear Valued Client,

Please be advised that over the holiday period, the standard TAT has been extended. Results for samples received after the 13th of December will be reported in January 2025. Please contact our ASM team if you have any questions. Bag are not provided for samples TP09_0.0-0.1, TP19_0-0.5, TP21_0-0.5, AsbWA analysis cancelled, please advise if As4964 testing was intended in the COC. Bag are not received for sample TP11_0-0.1, however Jar is available for sample TP11_0-0.1.

TP09_0-0.2, TP11_0-0.2 received bag as extra, not in COC, logged on hold, please advise for analysis.

TP21_0.4-0.5 bag received as extra with sample. TP18_0.0-0.3 received bag as extra logged on hold, please advise for analysis if any.

Please find attached a Sample Receipt Advice (SRA), a Summary Sheet and a scanned copy of your Chain-of-Custody (COC). It is important that you check this documentation to ensure that the details are correct such as the Client Job Number, Turn Around Time, any comments in the Notes section and sample numbers as well as the requested analysis. If there are any irregularities then please contact your Eurofins Analytical Services Manager as soon as possible to make certain that they get changed.

Kind Regards
George Lewis

[EnviroNote 1117 - Urban Runoff Mortality Syndrome 6-PPD quinone & HMMM](#)
[EnviroNote 1115 - Eurofins SYDNEY Laboratory is now NATA accredited for PFAS](#)

[View our latest EnviroNotes](#)

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	1/21 Smallwood Place Murarrie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079

Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

Perth
46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554

Eurofins Environment Testing NZ Ltd

NZBN: 9429046024954

Auckland	Auckland (Focus)	Christchurch	Tauranga
35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402

Sample Receipt Advice

Company name: JBS & G Australia (NSW) P/L
Contact name: Finn Billyard-Currey
Project name: ADDITIONAL: MATRAVILLE
Project ID: MATRAVILLE
Turnaround time: 5 Day
Date/Time received: Jan 6, 2025 12:48 PM
Eurofins reference: 1175676

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : 13.8 degrees Celsius.
- ✓ All samples have been received as described on the above COC.
- ✗ COC has been completed correctly.
- ✓ Attempt to chill was evident.
- ✓ Appropriately preserved sample containers have been used.
- ✓ All samples were received in good condition.
- ✓ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ✓ Appropriate sample containers have been used.
- ✓ Sample containers for volatile analysis received with zero headspace.
- ✗ Split sample sent to requested external lab.
- ✗ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Andrew Black on phone : (+61) 2 9900 8490 or by email: Andrew.Black@eurofinsanz.com

Results will be delivered electronically via email to Finn Billyard-Currey - fbillyardcurrey@jbsg.com.au.

web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle	Perth
6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	1/21 Smallwood Place Murarie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079	46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554

Auckland	Christchurch	Tauranga
35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402

Company Name: JBS & G Australia (NSW) P/L
Address: Level 8, 179 Elizabeth St
Sydney
NSW 2000

Project Name: ADDITIONAL: MATRAVILLE
Project ID: MATRAVILLE

Order No.:
Report #: 1175676
Phone: 02 8245 0300
Fax:

Received: Jan 6, 2025 12:48 PM
Due: Jan 13, 2025
Priority: 5 Day
Contact Name: Finn Billyard-Currey

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Asbestos - WA guidelines
Sydney Laboratory - NATA # 1261 Site # 18217						X
External Laboratory						
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
1	TP09 0-0.2	Dec 18, 2024		Soil	S25-Ja0006309	X
2	TP21 0-0.5	Dec 18, 2024		Soil	S25-Ja0006310	X
3	TP19 0-0.5	Dec 18, 2024		Soil	S25-Ja0006311	X
Test Counts						3

JBS & G Australia (NSW) P/L

Level 8, 179 Elizabeth St

Sydney

NSW 2000

Attention: Finn Billyard-Currey
Report 1175676-AID
Project Name ADDITIONAL: MATRAVILLE
Project ID MATRAVILLE
Received Date Jan 06, 2025
Date Reported Jan 14, 2025

Methodology:

Asbestos Fibre
Identification

Conducted in accordance with the Australian Standard AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004 and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques.
NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.

Man-made vitreous
fibre (MMVF)

Fibres exhibiting isotropic characteristics, including glass fibres, glass wool, rock wool, slag wool, ceramic fibres and bio-soluble fibres. *NOTE: previously known as "synthetic mineral fibre" (SMF). Simple analytical procedures such as polarised light microscopy cannot detect or reliably identify asbestos in some types of commercial products containing asbestos, either because the fibres are below the resolution of optical microscopy or because the matrix material adheres too strongly to the fibres. For these types of products, electron microscopy may be necessary.*

Subsampling Soil
Samples

The sample submitted is dried and passed through a 10 mm sieve followed by a 2 mm sieve. All fibrous matter greater than 10 mm and greater than 2 mm and the material passing through the 2 mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 g to 60 g, then a subsampling routine based on ISO 3082:2017(E) is employed.

NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be subsampled for trace analysis, in accordance with AS 5370:2024.*

Bonded asbestos-
containing material
(ACM)

The material is first examined, and any fibres are isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination. The resultant material is then further examined in accordance with AS 5370:2024*.

NOTE: Even after disintegration, it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.

Limit of Reporting
(LOR)

The performance limitation of the AS 5370:2024* method for non-homogeneous samples is around 0.1 g/kg (equivalent to 0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis, this is considered to be at the nominal reporting limit of 0.01% (w/w). The NEPM screening level of 0.001% (w/w) is intended as an on-site determination, not a laboratory limit of reporting, per se. Examination of large sample size (e.g., 500 mL) may improve the likelihood of detecting asbestos, particularly AF, to aid assessment against the NEPM criteria. Gravimetric determinations to this level of accuracy are outside of AS 5370:2024*, and hence, NATA Accreditation does not cover the performance of this service (non-NATA results are shown with an asterisk).

NOTE: NATA News March 2014, p.7, states in relation to AS 4964-2004: "This is a qualitative method with a nominal reporting limit of 0.01 % " and that currently in Australia "there is no validated method available for the quantification of asbestos". This report is consistent with the analytical procedures and reporting recommendations in the NEPM and the WA DoH.

Project Name

Project ID

Date Sampled

Report

ADDITIONAL: MATRAVILLE

MATRAVILLE

Dec 18, 2024

1175676-AID

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
TP09_0-0.2	25-Ja0006309	Dec 18, 2024	Approximate Sample 829g Sample consisted of: Brown coarse-grained sandy soil, cement, plant residue and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP21_0-0.5	25-Ja0006310	Dec 18, 2024	Approximate Sample 965g Sample consisted of: Brown coarse-grained sandy soil, glass, cement and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP19_0-0.5	25-Ja0006311	Dec 18, 2024	Approximate Sample 795g Sample consisted of: Brown coarse-grained sandy soil, cement, plant residue and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

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

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	Jan 08, 2025	Indefinite

web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle	Perth
6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	1/21 Smallwood Place Murarie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079	46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554

Auckland	Christchurch	Tauranga
35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402

Company Name: JBS & G Australia (NSW) P/L
Address: Level 8, 179 Elizabeth St
Sydney
NSW 2000

Project Name: ADDITIONAL: MATRAVILLE
Project ID: MATRAVILLE

Order No.:
Report #: 1175676
Phone: 02 8245 0300
Fax:

Received: Jan 6, 2025 12:48 PM
Due: Jan 13, 2025
Priority: 5 Day
Contact Name: Finn Billyard-Currey

Eurofins Analytical Services Manager : Andrew Black

Sample Detail					
Asbestos - WA guidelines					
Sydney Laboratory - NATA # 1261 Site # 18217					
External Laboratory					
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID
1	TP09 0-0.2	Dec 18, 2024		Soil	S25-Ja0006309
2	TP21 0-0.5	Dec 18, 2024		Soil	S25-Ja0006310
3	TP19 0-0.5	Dec 18, 2024		Soil	S25-Ja0006311
Test Counts					3

Internal Quality Control Review and Glossary General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. Information identified on this report with the colour **blue** indicates data provided by customer that may have an impact on the results.
5. This report replaces any interim results previously issued.

Holding Times

Please refer to the most recent version of the 'Sample Preservation and Container Guide' for holding times (QS3001).

Units

% w/w:	Percentage weight-for-weight basis, e.g. of asbestos in asbestos-containing finds in soil samples (% w/w)
F/fld	Airborne fibre filter loading as Fibres (N) per Fields counted (n)
F/mL	Airborne fibre reported concentration as Fibres per millilitre of air drawn over the sampler membrane (C)
g, kg	Mass, e.g. of whole sample (M) or asbestos-containing find within the sample (m)
g/kg	Concentration in grams per kilogram
L, mL	Volume, e.g. of air as measured in AFM (V = r x t)
L/min	Airborne fibre sampling Flowrate as litres per minute of air drawn over the sampler membrane (r)
min	Time (t), e.g. of air sample collection period

Calculations

Airborne Fibre Concentration: $C = \left(\frac{A}{a}\right) \times \left(\frac{N}{n}\right) \times \left(\frac{1}{r}\right) \times \left(\frac{1}{t}\right) = K \times \left(\frac{N}{n}\right) \times \left(\frac{1}{V}\right)$

Asbestos Content (as asbestos): $\% w/w = \frac{(m \times P_A)}{M}$

Weighted Average (of asbestos): $\%_{WA} = \sum \frac{(m \times P_A) \times x}{x}$

Terms

%asbestos	Estimated percentage of asbestos in a given matrix may be derived from knowledge or experience of the material, informed by HSG264 <i>Appendix 2</i> , else assumed to be 15% in accordance with WA DOH <i>Appendix 2</i> (P_A). This estimate is not NATA-accredited.
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded (non-friable) condition. For the purposes of the NEPM and WA DOH, ACM corresponds to material larger than 7 mm x 7 mm.
AF	Asbestos Fines. Asbestos contamination within a soil sample, as defined by WA DOH. Includes loose fibre bundles and small pieces of friable and non-friable material such as asbestos cement fragments mixed with soil. Considered under the NEPM as equivalent to "non-bonded / friable".
AFM	Airborne Fibre Monitoring, e.g., by the MFM.
Amosite	Amosite Asbestos Detected. Amosite may also refer to Fibrous Grunerite or Brown Asbestos. Identified in accordance with AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004.
AS	Australian Standard.
Asbestos Content (as asbestos)	Total %w/w asbestos content in asbestos-containing finds in a soil sample (% w/w).
Chrysotile	Chrysotile Asbestos Detected. Chrysotile may also refer to Fibrous Serpentine or White Asbestos. Identified in accordance with AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004..
COC	Chain of Custody.
Crocidolite	Crocidolite Asbestos Detected. Crocidolite may also refer to Fibrous Riebeckite or Blue Asbestos. Identified in accordance with AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004..
Dry	Sample is dried by heating prior to analysis.
DS	Dispersion Staining. Technique required for unequivocal Identification of asbestos fibres by PLM.
FA	Fibrous Asbestos. Asbestos-containing material that is wholly or in part friable, including materials with higher asbestos content with a propensity to become friable with handling, and any material that was previously non-friable and in a severely degraded condition. For the purposes of the NEPM and WA DOH, FA generally corresponds to material larger than 7 mm x 7 mm, although FA may be more difficult to distinguish visibly and may be assessed as AF.
Fibre Count	Total of all fibres (whether asbestos or not) meeting the counting criteria set out in the NOHSC:3003
Fibre ID	Fibre Identification. Unequivocal identification of asbestos fibres according to AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004.. Includes Chrysotile, Amosite (Grunerite) or Crocidolite asbestos.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory's remit to assess the degree of friability.
HSG248	UK HSE HSG248, <i>Asbestos: The Analysts Guide</i> , 2 nd Edition (2021), ISBN: 9780616667079.
HSG264	UK HSE HSG264, <i>Asbestos: The Survey Guide</i> (2012), ISBN: 9780717665020
ISO (also ISO/IEC)	International Organization for Standardization / International Electrotechnical Commission.
K Factor	Microscope constant (K) as derived from the effective filter area of the given AFM membrane used for collecting the sample (A) and the projected eyepiece graticule area of the specific microscope used for the analysis (a).
LOR	Limit of Reporting.
MFM (also NOHSC:3003)	Membrane Filter Method. As described by the Australian Government National Occupational Health and Safety Commission, <i>Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres</i> , 2nd Edition [NOHSC:3003(2005)].
MMVF	Man-Made Vitreous Fibre - exhibiting isotropic characteristics, including glass fibres, glass wool, rock wool, slag wool, ceramic fibres and "bio-soluble fibres". NOTE: previously known as "synthetic mineral fibre" (SMF).
NEPM (also ASC NEPM)	National Environment Protection (Assessment of Site Contamination) Measure, (2013, as amended).
Organic	Organic Fibres Detected. Organic may refer to Natural or Man-Made Polymeric Fibres. Identified in accordance with AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004..
PCM	Phase Contrast Microscopy. This is used for fibre counting according to the MFM.
PLM	Polarised Light Microscopy. As used for Fibre Identification and Trace Analysis according to AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004..
Sampling	Unless otherwise stated, Eurofins are not responsible for sampling equipment or the sampling process.
SRA	Sample Receipt Advice.
Trace Analysis	An analytical procedure is used to detect the presence of respirable fibres (particularly asbestos) in a given sample matrix.
UK HSE HSG	United Kingdom, Health and Safety Executive, Health and Safety Guidance, publication.
UMF	Unidentified Mineral Fibre Detected. Fibrous minerals that are detected but have not been unequivocally identified by PLM with DS according to AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004.. It may include (but is not limited to) actinolite, anthophyllite, or tremolite asbestos.
WA DOH	Reference document for the NEPM. Government of Western Australia, <i>Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia</i> (updated 2021), including Appendix Four: <i>Laboratory analysis</i>
Weighted Average	Combined average %w/w asbestos content of all asbestos-containing finds in the given aliquot or total soil sample (% w_A).

Comments
Sample Integrity

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

Asbestos Counter/Identifier:

Chamath JHM Annakkage Senior Analyst-Asbestos

Authorised by:

Sayeed Abu Senior Analyst-Asbestos



Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please [click here](#).

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

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CERTIFICATE OF ANALYSIS 369516

Client Details

Client	JBS & G (NSW & WA) Pty Ltd
Attention	F Billyard-Currey
Address	Level 8, 179 Elizabeth St, Sydney, NSW, 2000

Sample Details

Your Reference	68409
Number of Samples	2 Soil
Date samples received	19/12/2024
Date completed instructions received	19/12/2024

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	03/01/2025
Date of Issue	31/12/2024
NATA Accreditation Number 2901. This document shall not be reproduced except in full.	
Accredited for compliance with ISO/IEC 17025 - Testing. Tests not covered by NATA are denoted with *	

Asbestos Approved By

Analysed by Asbestos Approved Analyst: Nyovan Moonean
 Authorised by Asbestos Approved Signatory: Stuart Chen

Results Approved By

Liam Timmins, Organics Supervisor
 Stuart Chen, Asbestos Approved Identifier/Report coordinator
 Tabitha Roberts, Senior Chemist
 Timothy Toll, Senior Chemist

Authorised By

Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil		
Our Reference		369516-1
Your Reference	UNITS	QA01
Date Sampled		18/12/2024
Type of sample		Soil
Date extracted	-	20/12/2024
Date analysed	-	20/12/2024
TRH C ₆ - C ₉	mg/kg	<25
TRH C ₆ - C ₁₀	mg/kg	<25
vTRH C 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
Total +ve Xylenes	mg/kg	<1
Surrogate aaa-Trifluorotoluene	%	114

svTRH (C10-C40) in Soil		
Our Reference		369516-1
Your Reference	UNITS	QA01
Date Sampled		18/12/2024
Type of sample		Soil
Date extracted	-	20/12/2024
Date analysed	-	23/12/2024
TRH C ₁₀ - C ₁₄	mg/kg	<50
TRH C ₁₅ - C ₂₈	mg/kg	<100
TRH C ₂₉ - C ₃₆	mg/kg	<100
Total +ve TRH (C10-C36)	mg/kg	<50
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
Total +ve TRH (>C10-C40)	mg/kg	<50
Surrogate o-Terphenyl	%	92

PAHs in Soil		
Our Reference		369516-1
Your Reference	UNITS	QA01
Date Sampled		18/12/2024
Type of sample		Soil
Date extracted	-	20/12/2024
Date analysed	-	23/12/2024
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,j+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
Total +ve PAH's	mg/kg	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5
Surrogate <i>p</i> -Terphenyl-d14	%	84

Organochlorine Pesticides in soil		
Our Reference		369516-1
Your Reference	UNITS	QA01
Date Sampled		18/12/2024
Type of sample		Soil
Date extracted	-	20/12/2024
Date analysed	-	23/12/2024
alpha-BHC	mg/kg	<0.1
HCB	mg/kg	<0.1
beta-BHC	mg/kg	<0.1
gamma-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
Endosulfan II	mg/kg	<0.1
pp-DDD	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
pp-DDT	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Mirex	mg/kg	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1
Surrogate 4-Chloro-3-NBTF	%	82

PCBs in Soil		
Our Reference		369516-1
Your Reference	UNITS	QA01
Date Sampled		18/12/2024
Type of sample		Soil
Date extracted	-	20/12/2024
Date analysed	-	23/12/2024
Aroclor 1016	mg/kg	<0.1
Aroclor 1221	mg/kg	<0.1
Aroclor 1232	mg/kg	<0.1
Aroclor 1242	mg/kg	<0.1
Aroclor 1248	mg/kg	<0.1
Aroclor 1254	mg/kg	<0.1
Aroclor 1260	mg/kg	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1
Surrogate 2-Fluorobiphenyl	%	75

Acid Extractable metals in soil		
Our Reference		369516-1
Your Reference	UNITS	QA01
Date Sampled		18/12/2024
Type of sample		Soil
Date prepared	-	20/12/2024
Date analysed	-	23/12/2024
Arsenic	mg/kg	<4
Cadmium	mg/kg	<0.4
Chromium	mg/kg	9
Copper	mg/kg	9
Lead	mg/kg	8
Mercury	mg/kg	<0.1
Nickel	mg/kg	11
Zinc	mg/kg	25

Moisture		
Our Reference	UNITS	369516-1
Your Reference		QA01
Date Sampled		18/12/2024
Type of sample		Soil
Date prepared	-	20/12/2024
Date analysed	-	23/12/2024
Moisture	%	1.2

Asbestos ID - soils NEPM - ASB-001

Our Reference		369516-1	369516-2
Your Reference	UNITS	QA01	QA02
Date Sampled		18/12/2024	18/12/2024
Type of sample		Soil	Soil
Date analysed	-	30/12/2024	30/12/2024
Sample mass tested	g	848.59	884.19
Sample Description	-	Brown sandy soil & rocks	Brown sandy soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected
Total Asbestos ^{#1}	g/kg	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	—	—
FA and AF Estimation*	g	—	—
ACM >7mm Estimation*	%(w/w)	<0.01	<0.01
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001
Asbestos comments	-	Nil	Nil

Method ID	Methodology Summary
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.
ASB-001	Asbestos ID - Identification of asbestos in soil samples using Polarised Light Microscopy and Dispersion Staining Techniques. Minimum 500mL soil sample was analysed as recommended by "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" with a reporting limit of 0.1g/kg (0.01% w/w) as per Australian Standard AS4964-2004. Results reported denoted with * are outside our scope of NATA accreditation. NOTE#1 Total Asbestos g/kg was analysed and reported as per Australian Standard AS4964 (This is the sum of ACM >7mm, <7mm and FA/AF relative to the sample mass tested) NOTE#2 The screening level of 0.001% w/w asbestos in soil for FA and AF only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres. Estimation = Estimated asbestos weight Results reported with "---" is equivalent to no visible asbestos identified using Polarised Light microscopy and Dispersion Staining Techniques.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	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 (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.

Method ID	Methodology Summary
Org-020	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 (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021/022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD and/or GC-MS/GC-MSMS. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL' values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero' values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL' values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	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)-BTX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	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)-BTX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date extracted	-			20/12/2024	[NT]	[NT]	[NT]	[NT]	20/12/2024	[NT]
Date analysed	-			20/12/2024	[NT]	[NT]	[NT]	[NT]	20/12/2024	[NT]
TRH C ₈ - C ₉	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	125	[NT]
TRH C ₈ - C ₁₀	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	125	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	128	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	127	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	123	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	124	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	126	[NT]
Naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	108	[NT]	[NT]	[NT]	[NT]	113	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date extracted	-			20/12/2024	[NT]	[NT]	[NT]	[NT]	20/12/2024	[NT]
Date analysed	-			23/12/2024	[NT]	[NT]	[NT]	[NT]	23/12/2024	[NT]
TRH C ₁₀ - C ₁₄	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	103	[NT]
TRH C ₁₅ - C ₂₈	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	96	[NT]
TRH C ₂₉ - C ₃₆	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	124	[NT]
TRH >C ₁₀ -C ₁₆	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	103	[NT]
TRH >C ₁₆ -C ₃₄	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	96	[NT]
TRH >C ₃₄ -C ₄₀	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	124	[NT]
Surrogate o-Terphenyl	%		Org-020	94	[NT]	[NT]	[NT]	[NT]	102	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date extracted	-			20/12/2024	[NT]	[NT]	[NT]	[NT]	20/12/2024	[NT]
Date analysed	-			23/12/2024	[NT]	[NT]	[NT]	[NT]	23/12/2024	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	112	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	98	[NT]
Fluorene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	98	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	116	[NT]
Anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	116	[NT]
Pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	118	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	120	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	110	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate <i>p</i> -Terphenyl-d14	%		Org-022/025	83	[NT]	[NT]	[NT]	[NT]	93	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date extracted	-			20/12/2024	[NT]	[NT]	[NT]	[NT]	20/12/2024	[NT]
Date analysed	-			23/12/2024	[NT]	[NT]	[NT]	[NT]	23/12/2024	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	114	[NT]
HCB	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	123	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	108	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	122	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	130	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	114	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	128	[NT]
Endrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	114	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	128	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	75	[NT]	[NT]	[NT]	[NT]	87	[NT]

QUALITY CONTROL: PCBs in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date extracted	-			20/12/2024	[NT]	[NT]	[NT]	[NT]	20/12/2024	[NT]
Date analysed	-			23/12/2024	[NT]	[NT]	[NT]	[NT]	23/12/2024	[NT]
Aroclor 1016	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	123	[NT]
Aroclor 1260	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate 2-Fluorobiphenyl	%		Org-021/022/025	78	[NT]	[NT]	[NT]	[NT]	85	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			20/12/2024	[NT]	[NT]	[NT]	[NT]	20/12/2024	[NT]
Date analysed	-			23/12/2024	[NT]	[NT]	[NT]	[NT]	23/12/2024	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	102	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	91	[NT]
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	98	[NT]
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	107	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	117	[NT]
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	92	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

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.
Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.	
The recommended maximums for analytes in urine are taken from "2018 TLVs and BEIs", as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.	
Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2	

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: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

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

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

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

Asbestos-ID in soil: NEPM

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

RE: Eurofins Sample Receipt Advice - Report 1174208 : Site MATRAVILLE (MATRAVILLE)

From Milad Noujaim <mnoujaim@jbsg.com.au>
Date Tue 21/01/2025 1:37 PM
To Andrew Black <Andrew.Black@eurofinsanz.com>
Cc EnviroSampleNSW@eurofins.com <EnviroSampleNSW@eurofins.com>

Unverified Sender: The sender of this email has not been verified. Review the content of the message carefully and verify the identity of the sender before acting on this email: replying, opening attachments or clicking links.

Hi Team,

Can I get the following on a 24 hr TAT please:

- TP10_0-0.1 for silica gel
- TP10_0.2-0.3 for TRH and Zinc
- TP23_0.2-0.3 for Zinc

Kind Regards,



Milad Noujaim | Senior Environmental Consultant | JBS&G

Gadigal Country | Level 8, 179 Elizabeth Street, Sydney, NSW

T: 02 8245 0300 | M: 0401 230 032 | E: mnoujaim@jbsg.com.au | W: jbsg.com.au | L: [Conditions and Limitations](#)

Exceptional Outcomes

From: Milad Noujaim
Sent: Tuesday, 14 January 2025 10:31 AM
To: Andrew Black <Andrew.Black@eurofinsanz.com>
Cc: EnviroSampleNSW@eurofins.com
Subject: RE: Eurofins Sample Receipt Advice - Report 1174208 : Site MATRAVILLE (MATRAVILLE)

Hi Team,

Can I get the results for this.

Kind Regards,



Milad Noujaim | Senior Environmental Consultant | JBS&G

Gadigal Country | Level 8, 179 Elizabeth Street, Sydney, NSW

T: 02 8245 0300 | M: 0401 230 032 | E: mnoujaim@jbsg.com.au | W: jbsg.com.au | L: [Conditions and Limitations](#)

Exceptional Outcomes

From: Andrew Black <Andrew.Black@eurofinsanz.com>
Sent: Thursday, 9 January 2025 9:08 AM
To: Milad Noujaim <mnoujaim@jbsg.com.au>
Subject: RE: Eurofins Sample Receipt Advice - Report 1174208 : Site MATRAVILLE (MATRAVILLE)

[EXTERNAL EMAIL] Stop and think before opening attachments, clicking or responding.

Hard to predict at this stage Milad. Still missing the asbestos, organics and metals. Hopeful by end of tomorrow. Unfortunately we have only 50% of our staff on board, so many still away on leave.

Andrew Black
Analytical Services Manager

Eurofins | Environment Testing Australia Pty Ltd

1 / 2 Frost Drive
Mayfield West, NSW, 2304
Phone: +61 2 9900 8490
Mobile: +61 410 220 750
Email: Andrew.Black@eurofinsanz.com
Website: eurofins.com.au/environmental-testing
<https://www.eurofins-estore.com.au/>

Please note my work hours are 8:30am-5:30pm, anything outside of that I will get to the next day. Contact evening shift ASM for anything urgent.

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From: Milad Noujaim <mnoujaim@jbsg.com.au>
Sent: Thursday, 9 January 2025 8:58 AM
To: Andrew Black <Andrew.Black@eurofinsanz.com>
Subject: FW: Eurofins Sample Receipt Advice - Report 1174208 : Site MATRAVILLE (MATRAVILLE)

Unverified Sender: The sender of this email has not been verified. Review the content of the message carefully and verify the identity of the sender before acting on this email: replying, opening attachments or clicking links.

Hi Andrew,

Do we have an update for 1174208

Kind Regards,



Milad Noujaim | Senior Environmental Consultant | JBS&G

Gadigal Country | Level 8, 179 Elizabeth Street, Sydney, NSW

T: 02 8245 0300 | M: 0401 230 032 | E: mnoujaim@jbsg.com.au | W: jbsg.com.au | L: [Conditions and Limitations](#)

Exceptional Outcomes

From: Andrew Black <Andrew.Black@eurofinsanz.com>
Sent: Monday, 6 January 2025 12:48 PM
To: Milad Noujaim <mnoujaim@jbsg.com.au>
Subject: RE: Eurofins Sample Receipt Advice - Report 1174208 : Site MATRAVILLE (MATRAVILLE)

[EXTERNAL EMAIL] Stop and think before opening attachments, clicking or responding.

I'll place this one for you now Milad.

Andrew Black
Analytical Services Manager

Eurofins | Environment Testing Australia Pty Ltd

1 / 2 Frost Drive

Mayfield West, NSW, 2304

Phone: +61 2 9900 8490

Mobile: +61 410 220 750

Email: Andrew.Black@eurofinsanz.com

Website: eurofins.com.au/environmental-testing

<https://www.eurofins-estore.com.au/>

Please note my work hours are 8:30am-5:30pm, anything outside of that I will get to the next day. Contact evening shift ASM for anything urgent.

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From: Milad Noujaim <mnoujaim@jbsg.com.au>

Sent: Monday, 6 January 2025 12:14 PM

To: EET-ELVIS@eurofinsanz.com

Cc: Finn Billyard-Currey <fbillyardcurrey@jbsg.com.au>; Andrew Black <Andrew.Black@eurofinsanz.com>

Subject: RE: Eurofins Sample Receipt Advice - Report 1174208 : Site MATRAVILLE (MATRAVILLE)

Unverified Sender: The sender of this email has not been verified. Review the content of the message carefully and verify the identity of the sender before acting on this email: replying, opening attachments or clicking links.

Hi Team,

Can we get the following analysis conducted:

- TP09 0-0.2 for asbestos NEPM
- Extra TP21_0.4-0.5 log as TP21_0-0.5 and analyse for asbestos NEPM
- Extra TP18_0-0.3 log as TP19_0-0.5 and analyse for asbestos NEPM

All asbestos analysis are NEPM/WA

Kind Regards,



Milad Noujaim | Senior Environmental Consultant | JBS&G

Gadigal Country | Level 8, 179 Elizabeth Street, Sydney, NSW

T: 02 8245 0300 | M: 0401 230 032 | E: mnoujaim@jbsg.com.au | W: jbsg.com.au | L: [Conditions and Limitations](#)

Exceptional Outcomes

From: Finn Billyard-Currey <fbillyardcurrey@jbsg.com.au>

Sent: Monday, 6 January 2025 9:31 AM

To: Milad Noujaim <mnoujaim@jbsg.com.au>

Subject: Fw: Eurofins Sample Receipt Advice - Report 1174208 : Site MATRAVILLE (MATRAVILLE)

From: Finn Billyard-Currey <fbillyardcurrey@jbsg.com.au>
Sent: Monday, January 6, 2025 9:30:26 am
To: EnviroSampleNSW@eurofinsanz.com <EnviroSampleNSW@eurofinsanz.com>
Subject: Re: Eurofins Sample Receipt Advice - Report 1174208 : Site MATRAVILLE (MATRAVILLE)

Could we get TP21_0.4-0.5 analysed for asbestos please? Thank you.

From: George Lewis <EET-ELVIS@eurofinsanz.com>
Sent: Friday, December 27, 2024 1:40:08 PM
To: Finn Billyard-Currey <fbillyardcurrey@jbsg.com.au>
Cc: JBSG Labresults <jbsglabresults@jbsg.com.au>; S&G Labresults <labresults@jbsg.com.au>
Subject: Eurofins Sample Receipt Advice - Report 1174208 : Site MATRAVILLE (MATRAVILLE)

[EXTERNAL EMAIL] Stop and think before opening attachments, clicking or responding.

Dear Valued Client,

Please be advised that over the holiday period, the standard TAT has been extended. Results for samples received after the 13th of December will be reported in January 2025. Please contact our ASM team if you have any questions. Bag are not provided for samples TP09_0.0-0.1, TP19_0-0.5, TP21_0-0.5, AsbWA analysis cancelled, please advise if As4964 testing was intended in the COC. Bag are not received for sample TP11_0-0.1, however Jar is available for sample TP11_0-0.1.

TP09_0-0.2, TP11_0-0.2 received bag as extra, not in COC, logged on hold, please advise for analysis.

TP21_0.4-0.5 bag received as extra with sample. TP18_0.0-0.3 received bag as extra logged on hold, please advise for analysis if any.

Please find attached a Sample Receipt Advice (SRA), a Summary Sheet and a scanned copy of your Chain-of-Custody (COC). It is important that you check this documentation to ensure that the details are correct such as the Client Job Number, Turn Around Time, any comments in the Notes section and sample numbers as well as the requested analysis. If there are any irregularities then please contact your Eurofins Analytical Services Manager as soon as possible to make certain that they get changed.

Kind Regards
George Lewis

[EnviroNote 1117 - Urban Runoff Mortality Syndrome 6-PPD quinone & HMMM](#)
[EnviroNote 1115 - Eurofins SYDNEY Laboratory is now NATA accredited for PFAS](#)

[View our latest EnviroNotes](#)

Eurofins Environment Testing Australia Pty Ltd

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Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

Perth
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Eurofins Environment Testing NZ Ltd

NZBN: 9429046024954

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Sample Receipt Advice

Company name: JBS & G Australia (NSW) P/L
Contact name: Finn Billyard-Currey
Project name: ADDITIONAL: MATRAVILLE
Project ID: MATRAVILLE
Turnaround time: 1 Day
Date/Time received: Jan 21, 2025 1:37 PM
Eurofins reference: 1179548

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : 13.8 degrees Celsius.
- ✓ All samples have been received as described on the above COC.
- ✗ COC has been completed correctly.
- ✓ Attempt to chill was evident.
- ✓ Appropriately preserved sample containers have been used.
- ✓ All samples were received in good condition.
- ✓ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ✓ Appropriate sample containers have been used.
- ✓ Sample containers for volatile analysis received with zero headspace.
- ✗ Split sample sent to requested external lab.
- ✗ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Andrew Black on phone : (+61) 2 9900 8490 or by email: Andrew.Black@eurofinsanz.com

Results will be delivered electronically via email to Finn Billyard-Currey - fbillyardcurrey@jbsg.com.au.



Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarrie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079
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---	--	--	--

Company Name: JBS & G Australia (NSW) P/L

Address: Level 8, 179 Elizabeth St
Sydney
NSW 2000

Project Name: ADDITIONAL: MATRAVILLE

Project ID: MATRAVILLE

Order No.:

Report #: 1179548

Phone: 02 8245 0300

Fax:

Received: Jan 21, 2025 1:37 PM

Due: Jan 22, 2025

Priority: 1 Day

Contact Name: Finn Billyard-Currey

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Zinc	TRH (after Silica Gel cleanup)	Moisture Set	Total Recoverable Hydrocarbons
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
External Laboratory									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	TP10 0-0.1	Dec 18, 2024		Soil	S25-Ja0030901		X	X	
2	TP10 0.2-0.3	Dec 18, 2024		Soil	S25-Ja0030902	X		X	X
3	TP23 0.2-0.3	Dec 18, 2024		Soil	S25-Ja0030903	X		X	
Test Counts						2	1	3	1

JBS & G Australia (NSW) P/L
Level 8, 179 Elizabeth St
Sydney
NSW 2000



NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
 NATA is a signatory to the ILAC Mutual Recognition
 Arrangement for the mutual recognition of the
 equivalence of testing, medical testing, calibration,
 inspection, proficiency testing scheme providers and
 reference materials producers reports and certificates.

Attention: Finn Billyard-Currey

Report 1179548-S
Project name ADDITIONAL: MATRAVILLE
Project ID MATRAVILLE
Received Date Jan 21, 2025

Client Sample ID			TP10_0-0.1	TP10_0.2-0.3	TP23_0.2-0.3
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			S25-Ja0030901	S25-Ja0030902	S25-Ja0030903
Date Sampled			Dec 18, 2024	Dec 18, 2024	Dec 18, 2024
Test/Reference	LOR	Unit			
TRH - 2013 NEPM Fractions (after silica gel clean-up)					
TRH >C10-C16 (after silica gel clean-up)	50	mg/kg	< 50	-	-
TRH >C16-C34 (after silica gel clean-up)	100	mg/kg	< 100	-	-
TRH >C34-C40 (after silica gel clean-up)	100	mg/kg	< 100	-	-
TRH >C10-C40 (total) (after silica-gel clean up)*	100	mg/kg	< 100	-	-
TRH - 1999 NEPM Fractions (after silica gel clean-up)					
TRH C10-C14 (after silica gel clean-up)	50	mg/kg	< 50	-	-
TRH C15-C28 (after silica gel clean-up)	100	mg/kg	< 100	-	-
TRH C29-C36 (after silica gel clean-up)	100	mg/kg	< 100	-	-
TRH C10-C36 (Total) (after silica gel clean-up)	50	mg/kg	< 100	-	-
Sample Properties					
% Moisture	1	%	4.5	< 1	2.0
Total Recoverable Hydrocarbons					
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-C36 (Total)	50	mg/kg	-	< 50	-
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	-
TRH >C10-C40 (total)*	100	mg/kg	-	< 100	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
Naphthalene ^{N02}	0.5	mg/kg	-	< 0.5	-
Heavy Metals					
Zinc	5	mg/kg	-	36	120

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

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
TRH - 2013 NEPM Fractions (after silica gel clean-up)	Sydney	Jan 21, 2025	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
TRH - 1999 NEPM Fractions (after silica gel clean-up)	Sydney	Jan 21, 2025	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
% Moisture	Sydney	Jan 21, 2025	14 Days
- Method: LTM-GEN-7080 Moisture			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Jan 21, 2025	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Jan 21, 2025	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Jan 21, 2025	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Heavy Metals	Sydney	Jan 21, 2025	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			



web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarrie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079	Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554	Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Company Name: JBS & G Australia (NSW) P/L

Address: Level 8, 179 Elizabeth St
Sydney
NSW 2000

Project Name: ADDITIONAL: MATRAVILLE

Project ID: MATRAVILLE

Order No.:

Report #: 1179548

Phone: 02 8245 0300

Fax:

Received: Jan 21, 2025 1:37 PM

Due: Jan 22, 2025

Priority: 1 Day

Contact Name: Finn Billyard-Currey

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Zinc	TRH (after Silica Gel cleanup)	Moisture Set	Total Recoverable Hydrocarbons
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
External Laboratory									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	TP10 0-0.1	Dec 18, 2024		Soil	S25-Ja0030901		X	X	
2	TP10 0.2-0.3	Dec 18, 2024		Soil	S25-Ja0030902	X		X	X
3	TP23 0.2-0.3	Dec 18, 2024		Soil	S25-Ja0030903	X		X	
Test Counts						2	1	3	1

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the '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 before sample receipt deadlines as stated on the SRA.

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

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

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is seven days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units

mg/kg: milligrams per kilogram	mg/L: milligrams per litre	ppm: parts per million
µg/L: micrograms per litre	ppb: parts per billion	%: Percentage
org/100 mL: Organisms per 100 millilitres	NTU: Nephelometric Turbidity Units	MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony Forming Unit	Colour: Pt-Co Units (CU)	

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (<i>bis</i> -tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 6.0
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should only be used as a guide and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented.

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%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as 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 are not data from your samples.
3. 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.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.

Quality Control Results

Test			Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Method Blank								
TRH - 2013 NEPM Fractions (after silica gel clean-up)								
TRH >C10-C16 (after silica gel clean-up)			mg/kg	< 50		50	Pass	
TRH >C16-C34 (after silica gel clean-up)			mg/kg	< 100		100	Pass	
TRH >C34-C40 (after silica gel clean-up)			mg/kg	< 100		100	Pass	
Method Blank								
TRH - 1999 NEPM Fractions (after silica gel clean-up)								
TRH C10-C14 (after silica gel clean-up)			mg/kg	< 50		50	Pass	
TRH C15-C28 (after silica gel clean-up)			mg/kg	< 100		100	Pass	
TRH C29-C36 (after silica gel clean-up)			mg/kg	< 100		100	Pass	
Method Blank								
Total Recoverable Hydrocarbons								
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	
TRH C6-C10			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								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions								
Naphthalene			mg/kg	< 0.5		0.5	Pass	
Method Blank								
Heavy Metals								
Zinc			mg/kg	< 5		5	Pass	
LCS - % Recovery								
TRH - 2013 NEPM Fractions (after silica gel clean-up)								
TRH >C10-C16 (after silica gel clean-up)			%	71		70-130	Pass	
LCS - % Recovery								
TRH - 1999 NEPM Fractions (after silica gel clean-up)								
TRH C10-C14 (after silica gel clean-up)			%	75		70-130	Pass	
LCS - % Recovery								
Total Recoverable Hydrocarbons								
TRH C6-C9			%	108		70-130	Pass	
TRH C10-C14			%	83		70-130	Pass	
TRH C6-C10			%	105		70-130	Pass	
TRH >C10-C16			%	85		70-130	Pass	
LCS - % Recovery								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions								
Naphthalene			%	104		70-130	Pass	
LCS - % Recovery								
Heavy Metals								
Zinc			%	105		80-120	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery								
TRH - 2013 NEPM Fractions (after silica gel clean-up)								
TRH >C10-C16 (after silica gel clean-up)				Result 1				
TRH >C10-C16 (after silica gel clean-up)		S25-Ja0030912	NCP	%	101	70-130	Pass	
Spike - % Recovery								
TRH - 1999 NEPM Fractions (after silica gel clean-up)								
				Result 1				

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C10-C14 (after silica gel clean-up)	S25-Ja0030912	NCP	%	100			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S25-Ja0027841	NCP	%	103			70-130	Pass	
TRH C10-C14	S25-Ja0030778	NCP	%	81			70-130	Pass	
TRH C6-C10	S25-Ja0027841	NCP	%	101			70-130	Pass	
TRH >C10-C16	S25-Ja0030778	NCP	%	83			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S25-Ja0027841	NCP	%	111			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Zinc	S25-Ja0021288	NCP	%	79			75-125	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
TRH - 2013 NEPM Fractions (after silica gel clean-up)				Result 1	Result 2	RPD			
TRH >C10-C16 (after silica gel clean-up)	S25-Ja0030901	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34 (after silica gel clean-up)	S25-Ja0030901	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40 (after silica gel clean-up)	S25-Ja0030901	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
TRH - 1999 NEPM Fractions (after silica gel clean-up)				Result 1	Result 2	RPD			
TRH C10-C14 (after silica gel clean-up)	S25-Ja0030901	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C15-C28 (after silica gel clean-up)	S25-Ja0030901	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH C29-C36 (after silica gel clean-up)	S25-Ja0030901	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH C10-C36 (Total) (after silica gel clean-up)	S25-Ja0030901	CP	mg/kg	< 100	100	<1	30%	Pass	
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	S25-Ja0030901	CP	%	4.5	3.3	30	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S25-Ja0030930	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	W25-Ja0029490	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	W25-Ja0029490	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	W25-Ja0029490	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C6-C10	S25-Ja0030930	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	W25-Ja0029490	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	W25-Ja0029490	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	W25-Ja0029490	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S25-Ja0030930	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Zinc	S25-Ja0031261	NCP	mg/kg	23	23	2.0	30%	Pass	

Comments
Sample Integrity

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

Qualifier Codes/Comments

Code	Description
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:

Andrew Black	Analytical Services Manager
Mickael Ros	Senior Analyst-Metal
Raymond Siu	Senior Analyst-Organic
Raymond Siu	Senior Analyst-Volatile
Ryan Phillips	Senior Analyst-Sample Properties



Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please [click here](#).

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RE: Eurofins Test Results - Report 1174208 : Site MATRAVILLE (MATRAVILLE)

From Milad Noujaim <mnoujaim@jbsg.com.au>
Date Thu 23/01/2025 7:46 AM
To Andrew Black <Andrew.Black@eurofinsanz.com>

Unverified Sender: The sender of this email has not been verified. Review the content of the message carefully and verify the identity of the sender before acting on this email: replying, opening attachments or clicking links.

Can I please get TP23_0.4-0.5 analysed for Zinc on a same day TAT please.

Kind Regards,



Milad Noujaim | Senior Environmental Consultant | JBS&G

Gadigal Country | Level 8, 179 Elizabeth Street, Sydney, NSW

T: 02 8245 0300 | M: 0401 230 032 | E: mnoujaim@jbsg.com.au | W: jbsg.com.au | L: [Conditions and Limitations](#)

Exceptional Outcomes

From: Milad Noujaim
Sent: Wednesday, 22 January 2025 10:39 AM
To: Andrew Black <Andrew.Black@eurofinsanz.com>
Subject: RE: Eurofins Test Results - Report 1174208 : Site MATRAVILLE (MATRAVILLE)

Noted, thanks for the update.

Kind Regards,



Milad Noujaim | Senior Environmental Consultant | JBS&G

Gadigal Country | Level 8, 179 Elizabeth Street, Sydney, NSW

T: 02 8245 0300 | M: 0401 230 032 | E: mnoujaim@jbsg.com.au | W: jbsg.com.au | L: [Conditions and Limitations](#)

Exceptional Outcomes

From: Andrew Black <Andrew.Black@eurofinsanz.com>
Sent: Wednesday, 22 January 2025 10:38 AM
To: Milad Noujaim <mnoujaim@jbsg.com.au>
Subject: RE: Eurofins Test Results - Report 1174208 : Site MATRAVILLE (MATRAVILLE)

[EXTERNAL EMAIL] Stop and think before opening attachments, clicking or responding.

I don't believe we did Milad since it was way past holding time on the TB/TS and wouldn't be worth doing due to the bad recoveries.

Andrew Black
Analytical Services Manager

Eurofins | Environment Testing Australia Pty Ltd
1 / 2 Frost Drive
Mayfield West, NSW, 2304

Phone: +61 2 9900 8490
Mobile: +61 410 220 750
Email: Andrew.Black@eurofinsanz.com
Website: eurofins.com.au/environmental-testing
<https://www.eurofins-estore.com.au/>

Please note my work hours are 8:30am-5:30pm, anything outside of that I will get to the next day. Contact evening shift ASM for anything urgent.

This e-mail including its attachments may contain confidential and proprietary information. Any unauthorized disclosure or use of this e-mail including its attachments is prohibited and may be prosecuted. If you are not the intended recipient, please inform the sender by an e-mail reply and delete the message.

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From: Milad Noujaim <mnoujaim@jbsg.com.au>
Sent: Wednesday, 22 January 2025 10:36 AM
To: Andrew Black <Andrew.Black@eurofinsanz.com>
Cc: EnviroSampleNSW@eurofins.com
Subject: RE: Eurofins Test Results - Report 1174208 : Site MATRAVILLE (MATRAVILLE)

Unverified Sender: The sender of this email has not been verified. Review the content of the message carefully and verify the identity of the sender before acting on this email: replying, opening attachments or clicking links.

Hi Andrew,

Did you end up analysing this? I haven't received an update ?

Kind Regards,



Milad Noujaim | Senior Environmental Consultant | JBS&G

Gadigal Country | Level 8, 179 Elizabeth Street, Sydney, NSW

T: 02 8245 0300 | M: 0401 230 032 | E: mnoujaim@jbsg.com.au | W: jbsg.com.au | L: [Conditions and Limitations](#)

Exceptional Outcomes

From: Milad Noujaim
Sent: Tuesday, 14 January 2025 1:29 PM
To: Andrew.Black@eurofinsanz.com
Subject: RE: Eurofins Test Results - Report 1174208 : Site MATRAVILLE (MATRAVILLE)

Can we please analyse TS/TB for BTEX on an ASAP TAT

Kind Regards,



Milad Noujaim | Senior Environmental Consultant | JBS&G

Gadigal Country | Level 8, 179 Elizabeth Street, Sydney, NSW

T: 02 8245 0300 | M: 0401 230 032 | E: mnoujaim@jbsg.com.au | W: jbsg.com.au | L: [Conditions and Limitations](#)

Exceptional Outcomes

From: Andrew Black <EET-ELVIS@eurofinsanz.com>
Sent: Tuesday, 14 January 2025 10:33 AM

To: Milad Noujaim <mnoujaim@jbsg.com.au>

Subject: Eurofins Test Results - Report 1174208 : Site MATRAVILLE (MATRAVILLE)

*****[EXTERNAL EMAIL]** Stop and think before opening attachments, clicking or responding.***

Here you go Milad.

Kindest Regards,

Andrew Black

Analytical Services Manager

Eurofins | Environment Testing

Unit 1

2 Frost Drive

MAYFIELD WEST NSW 2304

AUSTRALIA

Phone: +61 299 008 490

Mobile: +61 410 220 750

Email: Andrew.Black@eurofinsanz.com

Website: <http://environment.eurofins.com.au>

[View our latest EnviroNotes](#)

Eurofins Environment Testing Australia Pty Ltd

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Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

Perth
46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554

Eurofins Environment Testing NZ Ltd

NZBN: 9429046024954

Auckland	Auckland (Focus)	Christchurch	Tauranga
35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402

Sample Receipt Advice

Company name: JBS & G Australia (NSW) P/L
Contact name: Finn Billyard-Currey
Project name: ADDITIONAL: MATRAVILLE
Project ID: 68409
Turnaround time: Same day
Date/Time received: Jan 23, 2025 7:46 AM
Eurofins reference: 1180172

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : 13.8 degrees Celsius.
- ✓ All samples have been received as described on the above COC.
- ✓ COC has been completed correctly.
- ✓ Attempt to chill was evident.
- ✓ Appropriately preserved sample containers have been used.
- ✓ All samples were received in good condition.
- ✓ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ✓ Appropriate sample containers have been used.
- ✓ Sample containers for volatile analysis received with zero headspace.
- ✗ Split sample sent to requested external lab.
- ✗ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Andrew Black on phone : (+61) 2 9900 8490 or by email: Andrew.Black@eurofinsanz.com

Results will be delivered electronically via email to Finn Billyard-Currey - fbillyardcurrey@jbsg.com.au.



Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarrie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079
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Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554
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Eurofins Environment Testing NZ Ltd

NZBN: 9429046024954

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---	--	--	--

Company Name:	JBS & G Australia (NSW) P/L	Order No.:		Received:	Jan 23, 2025 7:46 AM
Address:	Level 8, 179 Elizabeth St Sydney NSW 2000	Report #:	1180172	Due:	Jan 23, 2025
		Phone:	02 8245 0300	Priority:	Same day
		Fax:		Contact Name:	Finn Billyard-Currey
Project Name:	ADDITIONAL: MATRAVILLE				
Project ID:	68409				
Eurofins Analytical Services Manager : Andrew Black					

Sample Detail						Zinc	Moisture Set
Sydney Laboratory - NATA # 1261 Site # 18217						X	X
External Laboratory							
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID		
1	TP23 0.4-0.5	Dec 18, 2024		Soil	S25-Ja0035294	X	X
Test Counts						1	1

JBS & G Australia (NSW) P/L
Level 8, 179 Elizabeth St
Sydney
NSW 2000



NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
 NATA is a signatory to the ILAC Mutual Recognition
 Arrangement for the mutual recognition of the
 equivalence of testing, medical testing, calibration,
 inspection, proficiency testing scheme providers and
 reference materials producers reports and certificates.

Attention: **Finn Billyard-Currey**

Report **1180172-S**
 Project name **ADDITIONAL: MATRAVILLE**
 Project ID **68409**
 Received Date **Jan 23, 2025**

Client Sample ID			TP23_0.4-0.5
Sample Matrix			Soil
Eurofins Sample No.			S25-Ja0035294
Date Sampled			Dec 18, 2024
Test/Reference	LOR	Unit	
Heavy Metals			
Zinc	5	mg/kg	6.8
Sample Properties			
% Moisture	1	%	1.5

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

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
Heavy Metals	Sydney	Jan 23, 2025	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Jan 23, 2025	14 Days
- Method: LTM-GEN-7080 Moisture			



web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarrie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079	Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554	Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Company Name: JBS & G Australia (NSW) P/L

Address: Level 8, 179 Elizabeth St
Sydney
NSW 2000

Project Name: ADDITIONAL: MATRAVILLE

Project ID: 68409

Order No.:

Report #: 1180172

Phone: 02 8245 0300

Fax:

Received: Jan 23, 2025 7:46 AM

Due: Jan 23, 2025

Priority: Same day

Contact Name: Finn Billyard-Currey

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Zinc	Moisture Set
Sydney Laboratory - NATA # 1261 Site # 18217						X	X
External Laboratory							
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID		
1	TP23 0.4-0.5	Dec 18, 2024		Soil	S25-Ja0035294	X	X
Test Counts						1	1

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the '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 before sample receipt deadlines as stated on the SRA.

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

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

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is seven days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units

mg/kg: milligrams per kilogram	mg/L: milligrams per litre	ppm: parts per million
µg/L: micrograms per litre	ppb: parts per billion	%: Percentage
org/100 mL: Organisms per 100 millilitres	NTU: Nephelometric Turbidity Units	MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony Forming Unit	Colour: Pt-Co Units (CU)	

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (<i>bis</i> -tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 6.0
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should only be used as a guide and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented.

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%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as 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 are not data from your samples.
3. 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.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.

Quality Control Results

Test				Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank										
Heavy Metals										
Zinc				mg/kg	< 5			5	Pass	
LCS - % Recovery										
Heavy Metals										
Zinc				%	119			80-120	Pass	
Test	Lab Sample ID	QA Source		Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery										
Heavy Metals										
Zinc				%	94			75-125	Pass	
Test	Lab Sample ID	QA Source		Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate										
Heavy Metals										
Zinc					Result 1	Result 2	RPD			
Zinc				mg/kg	6.4	12	58	30%	Fail	Q02
Duplicate										
Sample Properties										
% Moisture				%	1.5	1.3	14	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
Q02	The duplicate %RPD is outside the recommended acceptance criteria. Further analysis indicates sample heterogeneity as the cause

Authorised by:

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Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please [click here](#).

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