

### **QUALITY CONTROL REPORT**

**Work Order** : **EM2125413** Page : 1 of 8

Client : Dept for Environment & Water Laboratory : Environmental Division Melbourne

Contact : Mr FRANK MANGERUCA Contact : Kieren Burns

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Project : HCHB - Phase 1 Date Samples Received : 16-Dec-2021
Order number : ---- Date Analysis Commenced : 16-Dec-2021

C-O-C number : ---- Issue Date : 24-Dec-2021

Sampler : ---

No. of samples analysed : 22

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall

Accreditation No. 825

Accredited for compliance with

This Quality Control Report contains the following information:

: 22

Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits

ADELAIDE SA. AUSTRALIA 5001

Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits

Matrix Spike (MS) Report; Recovery and Acceptance Limits

: AD/052/20 V2

### Signatories

No. of samples received

not be reproduced, except in full.

Site
Quote number

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

Signatories	Position	Accreditation Category
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Dilani Fernando	Laboratory Coordinator	Melbourne Inorganics, Springvale, VIC
Jarwis Nheu	Senior Inorganic Chemist	Melbourne Inorganics, Springvale, VIC
Nikki Stepniewski	Senior Inorganic Instrument Chemist	Melbourne Inorganics, Springvale, VIC
Samantha Smith	Assistant Laboratory Manager	WRG Subcontracting, Springvale, VIC

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Client : Dept for Environment & Water

Project : HCHB - Phase 1



#### **General Comments**

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key: Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot

CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

RPD = Relative Percentage Difference

# = Indicates failed QC

### Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

EM2125413-010	Sub-Matrix: WATER					Laboratory Duplicate (DUP) Report							
EM2125413-001         1.8km west of Salt Creek         EK055G-SW: Ammonia as N         7664-41-7         0.02         mg/L         <0.02         <0.02         0.0         No Limit           EM2125413-010         Noonameena         EK055G-SW: Ammonia as N         7664-41-7         0.02         mg/L         <0.02	Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)			
EM2125413-010         Noonameena         EK055G-SW: Ammonia as N         7664-417         0.02         mg/L         < 0.02         < 0.02         0.0         No Limit           EK055G-SW: Ammonia as N by Discrete Analyser in Saline Water (QC Lot: 4086801)         EM2125413-021         Tilley Swamp Drain Saline Water (QC Lot: 4086801)           EM2125413-021         Tilley Swamp Drain Water outed         EK055G-SW: Ammonia as N         7664-417         0.02         mg/L         0.33         0.33         0.0         0%-50%           EA015: Total Dissolved Solids dried at 180 ± 5 °C         CQC Lot: 4086150)         Waterourse Outlet           EM2125401-002         Anonymous         EA015H: Total Dissolved Solids @180°C	EK055G-SW: Ammo	nia as N by Discrete Analys	er in Saline Water (QC Lot: 4086799)										
EK055G-SW: Ammonia as N by Discrete Analysor in Saline Water (OC Lot: 4086801)  EM2125413-021 Tilley Swamp Drain Watercourse Outlet Watercourse Ou	EM2125413-001	1.8km west of Salt Creek	EK055G-SW: Ammonia as N	7664-41-7	0.02	mg/L	<0.02	<0.02	0.0	No Limit			
EM2125413-021 Tilley Swamp Drain Watercourse Outlet EK055G-SW: Ammonia as N 7684-41-7 0.02 mg/L 0.33 0.33 0.33 0.0 0% - 50% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0	EM2125413-010	Noonameena	EK055G-SW: Ammonia as N	7664-41-7	0.02	mg/L	<0.02	<0.02	0.0	No Limit			
Watercourse Outlet	EK055G-SW: Ammo	nia as N by Discrete Analys	er in Saline Water (QC Lot: 4086801)										
EM2125401-002         Anonymous         EA015H: Total Dissolved Solids @180°C	EM2125413-021	'	EK055G-SW: Ammonia as N	7664-41-7	0.02	mg/L	0.33	0.33	0.0	0% - 50%			
EM2125413-004 Long Point EA015H: Total Dissolved Solids @180°C 10 mg/L 40700 38600 5.3 0% - 20% EM2125413-014 Snipe Point EA015H: Total Dissolved Solids @180°C 10 mg/L 69200 70000 1.2 0% - 20% EM2125431-001 Anonymous EA015H: Total Dissolved Solids @180°C 10 mg/L 1910 1840 3.5 0% - 20% EA045: Turbidity (QC Lot: 4082336)  EM2125212-001 Anonymous EA045: Turbidity 0.1 NTU 127 131 3.1 0% - 20% EM2125212-002 Anonymous EA045: Turbidity 0.1 NTU 1.5 1.2 18.7 0% - 50% EA045: Turbidity (QC Lot: 4082337)  EM2125413-012 Parnka Point EA045: Turbidity 0.1 NTU 32.5 31.7 2.5 0% - 20% EM2125426-002 Anonymous EA045: Turbidity 0.1 NTU 0.2 0.2 0.2 0.0 No Limit EA045: Turbidity (QC Lot: 408215)  EM2125413-012 Parnka Point EA045: Turbidity 0.1 NTU 0.2 0.2 0.2 0.0 No Limit EA045: Turbidity (QC Lot: 4086215)  EM21254150-010 Anonymous EA045: Turbidity 0.1 NTU 1.0 0.9 0.0 No Limit EA045: Turbidity (QC Lot: 4086216)  EM2125413-005 Anonymous EA045: Turbidity 0.1 NTU 19.9 19.8 0.5 0% - 20% EA045: Turbidity (QC Lot: 4086216)  EM2125413-005 Mark Point EA045: Turbidity 0.1 NTU 18.0 17.5 2.8 0% - 20% EM2125413-005 Mark Point EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM212	EA015: Total Dissol	ved Solids dried at 180 $\pm$ 5 $^{\circ}$	C (QC Lot: 4086150)										
EM2125413-014         Snipe Point         EA015H: Total Dissolved Solids @180°C         10         mg/L         69200         70000         1.2         0% - 20%           EM2125431-001         Anonymous         EA015H: Total Dissolved Solids @180°C          10         mg/L         1910         1840         3.5         0% - 20%           EA045: Turbidity (QC Lot: 4082336)         EM2125212-001         Anonymous         EA045: Turbidity          0.1         NTU         1.2         18.7         0% - 20%           EA045: Turbidity (QC Lot: 4082337)         EA045: Turbidity (QC Lot: 4082337)         EM2125413-012         Parmka Point         EA045: Turbidity          0.1         NTU         32.5         31.7         2.5         0% - 20%           EM2125426-002         Anonymous         EA045: Turbidity          0.1         NTU         0.2         0.2         0.0         No Limit           EM2125413-001         Anonymous         EA045: Turbidity          0.1         NTU         0.2         0.2         0.0         No Limit           EM2124715-001         Anonymous         EA045: Turbidity          0.1         NTU         1.0         0.9         0.0         No Limit           EM212592-0	EM2125401-002	Anonymous	EA015H: Total Dissolved Solids @180°C		10	mg/L	7550	7670	1.6	0% - 20%			
EM2125431-001       Anonymous       EA015H: Total Dissolved Solids @180°C       — 10       mg/L       1910       1840       3.5       0% - 20%         EA045: Turbidity (QC Lot: 4082336)       EM2125212-001       Anonymous       EA045: Turbidity       — 0.1       NTU       127       131       3.1       0% - 20%         EM2125280-002       Anonymous       EA045: Turbidity       — 0.1       NTU       1.5       1.2       18.7       0% - 50%         EA045: Turbidity (QC Lot: 4082337)       EM2125413-012       Parmka Point       EA045: Turbidity       — 0.1       NTU       32.5       31.7       2.5       0% - 20%         EM2125426-002       Anonymous       EA045: Turbidity       — 0.1       NTU       0.2       0.2       0.0       No Limit         EM2124715-001       Anonymous       EA045: Turbidity       — 0.1       NTU       1.0       0.9       0.0       No Limit         EM2125192-005       Anonymous       EA045: Turbidity       — 0.1       NTU       19.9       19.8       0.5       0% - 20%         EM2125413-005       Mark Point       EA045: Turbidity       — 0.1       NTU       18.0       17.5       2.8       0% - 20%         EM2125404-004       Anonymous	EM2125413-004	Long Point	EA015H: Total Dissolved Solids @180°C		10	mg/L	40700	38600	5.3	0% - 20%			
EA045: Turbidity (QC Lot: 4082336)  EM2125212-001 Anonymous EA045: Turbidity	EM2125413-014	Snipe Point	EA015H: Total Dissolved Solids @180°C		10	mg/L	69200	70000	1.2	0% - 20%			
EM2125212-001 Anonymous EA045: Turbidity 0.1 NTU 127 131 3.1 0% - 20% EM2125280-002 Anonymous EA045: Turbidity 0.1 NTU 1.5 1.2 18.7 0% - 50% EA045: Turbidity (QC Lot: 4082337)  EM2125413-012 Parnka Point EA045: Turbidity 0.1 NTU 32.5 31.7 2.5 0% - 20% EM2125426-002 Anonymous EA045: Turbidity 0.1 NTU 0.2 0.2 0.2 0.0 No Limit EA045: Turbidity (QC Lot: 4086215)  EM2124715-001 Anonymous EA045: Turbidity 0.1 NTU 1.0 0.9 0.0 No Limit EM2125192-005 Anonymous EA045: Turbidity 0.1 NTU 19.9 19.8 0.5 0% - 20% EA045: Turbidity (QC Lot: 4086216)  EM2125413-005 Mark Point EA045: Turbidity 0.1 NTU 18.0 17.5 2.8 0% - 20% EM2125413-005 Mark Point EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM212504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20% EM212504-004	EM2125431-001	Anonymous	EA015H: Total Dissolved Solids @180°C		10	mg/L	1910	1840	3.5	0% - 20%			
EM2125280-002 Anonymous EA045: Turbidity ————————————————————————————————————	EA045: Turbidity (C	(C Lot: 4082336)											
EA045: Turbidity (QC Lot: 4082337)  EM2125413-012 Parnka Point EA045: Turbidity 0.1 NTU 32.5 31.7 2.5 0% - 20% EM2125426-002 Anonymous EA045: Turbidity 0.1 NTU 0.2 0.2 0.0 No Limit EA045: Turbidity (QC Lot: 4086215)  EM2124715-001 Anonymous EA045: Turbidity 0.1 NTU 1.0 0.9 0.0 No Limit EM2125192-005 Anonymous EA045: Turbidity 0.1 NTU 19.9 19.8 0.5 0% - 20% EA045: Turbidity (QC Lot: 4086216)  EM2125413-005 Mark Point EA045: Turbidity 0.1 NTU 18.0 17.5 2.8 0% - 20% EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20%	EM2125212-001	Anonymous	EA045: Turbidity		0.1	NTU	127	131	3.1	0% - 20%			
EM2125413-012       Parnka Point       EA045: Turbidity        0.1       NTU       32.5       31.7       2.5       0% - 20%         EM2125426-002       Anonymous       EA045: Turbidity        0.1       NTU       0.2       0.2       0.0       No Limit         EA045: Turbidity (QC Lot: 4086215)         EM2124715-001       Anonymous       EA045: Turbidity        0.1       NTU       1.0       0.9       0.0       No Limit         EM2125192-005       Anonymous       EA045: Turbidity        0.1       NTU       19.9       19.8       0.5       0% - 20%         EA045: Turbidity (QC Lot: 4086216)       EM2125413-005       Mark Point       EA045: Turbidity        0.1       NTU       18.0       17.5       2.8       0% - 20%         EM2125504-004       Anonymous       EA045: Turbidity        0.1       NTU       18.5       17.6       5.0       0% - 20%	EM2125280-002	Anonymous	EA045: Turbidity		0.1	NTU	1.5	1.2	18.7	0% - 50%			
EM2125426-002 Anonymous EA045: Turbidity ————————————————————————————————————	EA045: Turbidity (C	C Lot: 4082337)											
EA045: Turbidity (QC Lot: 4086215)  EM2124715-001 Anonymous EA045: Turbidity 0.1 NTU 1.0 0.9 0.0 No Limit EM2125192-005 Anonymous EA045: Turbidity 0.1 NTU 19.9 19.8 0.5 0% - 20% EA045: Turbidity (QC Lot: 4086216)  EM2125413-005 Mark Point EA045: Turbidity 0.1 NTU 18.0 17.5 2.8 0% - 20% EM212504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20%	EM2125413-012	Parnka Point	EA045: Turbidity		0.1	NTU	32.5	31.7	2.5	0% - 20%			
EM2124715-001       Anonymous       EA045: Turbidity        0.1       NTU       1.0       0.9       0.0       No Limit         EM2125192-005       Anonymous       EA045: Turbidity        0.1       NTU       19.9       19.8       0.5       0% - 20%         EA045: Turbidity       (QC Lot: 4086216)        0.1       NTU       18.0       17.5       2.8       0% - 20%         EM2125413-005       Mark Point       EA045: Turbidity        0.1       NTU       18.0       17.5       2.8       0% - 20%         EM2125504-004       Anonymous       EA045: Turbidity        0.1       NTU       18.5       17.6       5.0       0% - 20%	EM2125426-002	Anonymous	EA045: Turbidity		0.1	NTU	0.2	0.2	0.0	No Limit			
EM2125192-005 Anonymous EA045: Turbidity 0.1 NTU 19.9 19.8 0.5 0% - 20%  EA045: Turbidity (QC Lot: 4086216)  EM2125413-005 Mark Point EA045: Turbidity 0.1 NTU 18.0 17.5 2.8 0% - 20%  EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20%	EA045: Turbidity (C	C Lot: 4086215)											
EA045: Turbidity (QC Lot: 4086216)       EM2125413-005     Mark Point     EA045: Turbidity     0.1     NTU     18.0     17.5     2.8     0% - 20%       EM2125504-004     Anonymous     EA045: Turbidity     0.1     NTU     18.5     17.6     5.0     0% - 20%	EM2124715-001	Anonymous	EA045: Turbidity		0.1	NTU	1.0	0.9	0.0	No Limit			
EM2125413-005         Mark Point         EA045: Turbidity          0.1         NTU         18.0         17.5         2.8         0% - 20%           EM2125504-004         Anonymous         EA045: Turbidity          0.1         NTU         18.5         17.6         5.0         0% - 20%	EM2125192-005	Anonymous	EA045: Turbidity		0.1	NTU	19.9	19.8	0.5	0% - 20%			
EM2125504-004 Anonymous EA045: Turbidity 0.1 NTU 18.5 17.6 5.0 0% - 20%	EA045: Turbidity (C	C Lot: 4086216)											
Elete. Turbung	EM2125413-005	Mark Point	EA045: Turbidity		0.1	NTU	18.0	17.5	2.8	0% - 20%			
ED037P: Alkalinity by PC Titrator (QC Lot: 4083354)	EM2125504-004	Anonymous	EA045: Turbidity		0.1	NTU	18.5	17.6	5.0	0% - 20%			
	ED037P: Alkalinity I	y PC Titrator (QC Lot: 4083	354)										

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Work Order : EM2125413

Client : Dept for Environment & Water



Sub-Matrix: WATER					Laboratory Duplicate (DUP) Report							
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)			
ED037P: Alkalinity b	y PC Titrator (QC Lot: 4083	354) - continued										
EM2125413-009	Murray Mouth	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit			
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit			
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	89	82	7.7	0% - 20%			
		ED037-P: Total Alkalinity as CaCO3		1	mg/L	89	82	7.7	0% - 20%			
EM2125374-009	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit			
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit			
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	22	22	0.0	0% - 20%			
		ED037-P: Total Alkalinity as CaCO3		1	mg/L	22	22	0.0	0% - 20%			
ED037P: Alkalinity b	y PC Titrator (QC Lot: 4083	356)										
EM2125413-019	Tilley Swamp Drain D/S Nth Outlet	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit			
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	38	# 103	91.2	0% - 20%			
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	352	292	18.7	0% - 20%			
		ED037-P: Total Alkalinity as CaCO3		1	mg/L	390	395	1.1	0% - 20%			
EM2125414-007	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit			
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	1	<1	0.0	No Limit			
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	523	532	1.6	0% - 20%			
		ED037-P: Total Alkalinity as CaCO3		1	mg/L	524	532	1.4	0% - 20%			
ED045G: Chloride by	y Discrete Analyser (QC Lot	: 4081855)										
EM2125413-006	McGrath Flat North	ED045G: Chloride	16887-00-6	1	mg/L	42400	43900	3.6	0% - 20%			
EM2125167-001	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	<5	<5	0.0	No Limit			
ED045G: Chloride by	y Discrete Analyser (QC Lot	: 4081859)										
EM2125414-004	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	103	96	6.1	0% - 20%			
EM2125413-018	Tauwitchere U/S	ED045G: Chloride	16887-00-6	1	mg/L	73	71	2.9	0% - 20%			
EG052G: Silica by D	iscrete Analyser (QC Lot: 40	081858)										
EM2125413-001	1.8km west of Salt Creek	EG052G: Reactive Silica		0.05	mg/L	3.91	3.93	0.4	0% - 20%			
EM2125413-011	North Jacks Point	EG052G: Reactive Silica		0.05	mg/L	4.67	4.71	0.9	0% - 20%			
FG052G: Silica by D	iscrete Analyser (QC Lot: 40											
EM2125413-021	Tilley Swamp Drain	EG052G: Reactive Silica		0.05	mg/L	17.4	17.4	0.0	0% - 20%			
	Watercourse Outlet	EGGSZG. Reactive Gilica		0.00	mg/L	17.1		0.0	070 2070			
FK057G: Nitrite as I	N by Discrete Analyser (QC	Lot: 4081857)										
EM2125413-009	Murray Mouth	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit			
EM2125289-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit			
	•		11101 00 0	0.01	9/ _	0.01	0.01	0.0	110 2			
EM2125413-020	N by Discrete Analyser (QC		14797-65-0	0.01	ma/l	<0.01	<0.01	0.0	No Limit			
	Tilley Swamp Drain U/S Morella	EK057G: Nitrite as N			mg/L							
EM2125414-007	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit			
EK059G: Nitrite plu	s Nitrate as N (NOx) by Disc	rete Analyser (QC Lot: 4086798)										
EM2125413-001	1.8km west of Salt Creek	EK059G: Nitrite + Nitrate as N		0.01	mg/L	<0.01	<0.01	0.0	No Limit			

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Client : Dept for Environment & Water



Sub-Matrix: WATER  Laboratory Duplicate (DUP) Report									
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EK059G: Nitrite plu	is Nitrate as N (NOx) by Dis	crete Analyser (QC Lot: 4086798) - continued							
EM2125413-010	Noonameena	EK059G: Nitrite + Nitrate as N		0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK059G: Nitrite plu	ıs Nitrate as N (NOx) by Dis	crete Analyser (QC Lot: 4086800)							
EM2125413-021	Tilley Swamp Drain	EK059G: Nitrite + Nitrate as N		0.01	mg/L	0.01	<0.01	0.0	No Limit
	Watercourse Outlet								
EK061G: Total Kjeld	dahl Nitrogen By Discrete A	nalyser (QC Lot: 4089699)							
EM2125394-001	Anonymous	EK061G: Total Kjeldahl Nitrogen as N		0.1	mg/L	0.2	0.2	0.0	No Limit
EM2125413-002	3.2km south of Salt Creek	EK061G: Total Kjeldahl Nitrogen as N		0.1	mg/L	3.5	3.1	13.6	0% - 20%
	(land)								
EK061G: Total Kjel	dahl Nitrogen By Discrete A	nalyser (QC Lot: 4089701)							
EM2125413-013	Salt Creek Outlet	EK061G: Total Kjeldahl Nitrogen as N		0.1	mg/L	3.1	3.2	3.9	0% - 20%
EM2125413-022	Villa de Yumpa	EK061G: Total Kjeldahl Nitrogen as N		0.1	mg/L	4.7	4.5	3.6	0% - 20%
EK067G: Total Phos	sphorus as P by Discrete An	alyser (QC Lot: 4089698)							
EM2125413-002	3.2km south of Salt Creek (land)	EK067G: Total Phosphorus as P		0.01	mg/L	4.48	4.68	4.5	0% - 20%
EM2125394-001	Anonymous	EK067G: Total Phosphorus as P		0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK067G: Total Phos	sphorus as P by Discrete An	alyser (QC Lot: 4089700)							
EM2125413-013	Salt Creek Outlet	EK067G: Total Phosphorus as P		0.01	mg/L	3.17	3.42	7.4	0% - 20%
EM2125413-022	Villa de Yumpa	EK067G: Total Phosphorus as P		0.01	mg/L	0.30	0.31	0.0	0% - 20%
EK071G: Reactive F	Phosphorus as P by discrete	analyser (QC Lot: 4081854)							
EM2125413-007	Morella Basin @ outlet regulator	EK071G: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	0.03	0.03	0.0	No Limit
EM2125167-001	Anonymous	EK071G: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	1850	1910	2.8	0% - 20%
EK071G: Reactive F	Phosphorus as P by discrete	analyser (QC Lot: 4081860)							
EM2125413-018	Tauwitchere U/S	EK071G: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	0.01	<0.01	0.0	No Limit
FP002: Dissolved C	Organic Carbon (DOC) (QC L	•							
EM2125413-001	1.8km west of Salt Creek	EP002: Dissolved Organic Carbon		1	mg/L	33	33	0.0	0% - 20%
EM2125413-010	Noonameena	EP002: Dissolved Organic Carbon		1	mg/L	23	23	0.0	0% - 20%
FP002: Dissolved C	Organic Carbon (DOC) (QC L								
EM2125413-021	Tilley Swamp Drain Watercourse Outlet	EP002: Dissolved Organic Carbon		1	mg/L	9	8	0.0	No Limit
EP005: Total Organ	ic Carbon (TOC) (QC Lot: 4	084260)							
EM2125413-001	1.8km west of Salt Creek	EP005: Total Organic Carbon		1	mg/L	46	46	0.0	0% - 20%
EM2125413-010	Noonameena	EP005: Total Organic Carbon		1	mg/L	24	24	0.0	0% - 20%
EP005: Total Organ	ic Carbon (TOC) (QC Lot: 4								1
EM2125413-021	Tilley Swamp Drain	EP005: Total Organic Carbon		1	mg/L	9	8	0.0	No Limit
	Watercourse Outlet	El 665. Total Organic Carbon		·	9/ =		Ů	0.0	. 10
EP008: Chlorophyll	(QC Lot: 4090817)								
EM2125413-001	1.8km west of Salt Creek	EP008B: Chlorophyll b		1	mg/m³	2	2	0.0	No Limit

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# Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: WATER				Method Blank (MB)	Laboratory Control Spike (LCS) Report				
				Report	Spike	Spike Recovery (%)	Acceptable	e Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High	
EK055G-SW: Ammonia as N by Discrete Analyser in Salii	ne Water (QCLot:	4086799)							
EK055G-SW: Ammonia as N	7664-41-7	0.02	mg/L	<0.02	0.5 mg/L	112	81.1	124	
EK055G-SW: Ammonia as N by Discrete Analyser in Salii	ne Water (QCLot:	4086801)							
EK055G-SW: Ammonia as N	7664-41-7	0.02	mg/L	<0.02	0.5 mg/L	86.7	81.1	124	
EA015: Total Dissolved Solids dried at 180 ± 5 °C (QCLo	t: 4086150)								
EA015H: Total Dissolved Solids @180°C		10	mg/L	<10	2000 mg/L	99.3	91.0	110	
_				<10	2460 mg/L	101	81.7	118	
				<10	293 mg/L	95.6	91.0	110	
A045: Turbidity (QCLot: 4082336)									
EA045: Turbidity		0.1	NTU	<0.1	40 NTU	103	88.1	110	
EA045: Turbidity (QCLot: 4082337)									
EA045: Turbidity		0.1	NTU	<0.1	40 NTU	101	88.1	110	
EA045: Turbidity (QCLot: 4086215)									
A045: Turbidity		0.1	NTU	<0.1	40 NTU	99.2	88.1	110	
EA045: Turbidity (QCLot: 4086216)									
EA045: Turbidity		0.1	NTU	<0.1	40 NTU	99.2	88.1	110	
ED037P: Alkalinity by PC Titrator (QCLot: 4083354)									
ED037-P: Total Alkalinity as CaCO3			mg/L		200 mg/L	92.9	85.0	116	
ED037P: Alkalinity by PC Titrator (QCLot: 4083356)									
ED037-P: Total Alkalinity as CaCO3			mg/L		200 mg/L	94.7	85.0	116	
ED045G: Chloride by Discrete Analyser (QCLot: 4081855	2		3		J				
ED045G: Chloride	16887-00-6	1	mg/L	<1	10 mg/L	107	85.0	115	
25040G. Official		•	9	<1	1000 mg/L	106	85.0	122	
ED045G: Chloride by Discrete Analyser (QCLot: 4081859	)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	10 mg/L	107	85.0	115	
ED040G. Official			g	<1	1000 mg/L	108	85.0	122	
EG052G: Silica by Discrete Analyser (QCLot: 4081858)					_				
EG052G: Reactive Silica		0.05	mg/L	<0.05	5 mg/L	107	78.9	118	
EG052G: Silica by Discrete Analyser (QCLot: 4081862)					<u> </u>				
G052G: Reactive Silica		0.05	mg/L	<0.05	5 mg/L	110	78.9	118	
			<b>.</b>		g				
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4081 EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	102	90.9	112	
EK057G: Nitrite as N  EK057G: Nitrite as N by Discrete Analyser (QCLot: 4081	14101-00-0	0.01	ing/L	-0.01	0.5 mg/L	102	50.8	112	

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Sub-Matrix: WATER				Laboratory Control Spike (LCS) Report				
			Report	Spike	Spike Recovery (%)	Acceptable	Limits (%)	
Method: Compound CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High	
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4081861) - continued								
EK057G: Nitrite as N 14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	102	90.9	112	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 40	86798)							
EK059G: Nitrite + Nitrate as N	0.01	mg/L	<0.01	0.5 mg/L	109	90.0	117	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 40	86800)							
EK059G: Nitrite + Nitrate as N	0.01	mg/L	<0.01	0.5 mg/L	110	90.0	117	
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 4089699)								
EK061G: Total Kjeldahl Nitrogen as N	0.1	mg/L	<0.1	5 mg/L	109	70.0	117	
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 4089701)								
EK061G: Total Kjeldahl Nitrogen as N	0.1	mg/L	<0.1	5 mg/L	86.7	70.0	117	
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4089698)								
EK067G: Total Phosphorus as P	0.01	mg/L	<0.01	2.21 mg/L	103	71.9	114	
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4089700)								
EK067G: Total Phosphorus as P	0.01	mg/L	<0.01	2.21 mg/L	82.2	71.9	114	
EK071G: Reactive Phosphorus as P by discrete analyser (QCLot: 408185	4)							
EK071G: Reactive Phosphorus as P 14265-44-2	0.01	mg/L	<0.01	0.5 mg/L	117	92.7	119	
EK071G: Reactive Phosphorus as P by discrete analyser (QCLot: 408186	0)							
EK071G: Reactive Phosphorus as P 14265-44-2	0.01	mg/L	<0.01	0.5 mg/L	101	92.7	119	
EP002: Dissolved Organic Carbon (DOC) (QCLot: 4084259)								
EP002: Dissolved Organic Carbon	1	mg/L	<1	100 mg/L	102	83.0	115	
EP002: Dissolved Organic Carbon (DOC) (QCLot: 4084262)								
EP002: Dissolved Organic Carbon	1	mg/L	<1	100 mg/L	98.7	83.0	115	
EP005: Total Organic Carbon (TOC) (QCLot: 4084260)								
EP005: Total Organic Carbon	1	mg/L	<1	100 mg/L	100	81.2	110	
EP005: Total Organic Carbon (TOC) (QCLot: 4084261)								
EP005: Total Organic Carbon	1	mg/L	<1	100 mg/L	98.3	81.2	110	
EP008: Chlorophyll (QCLot: 4090817)								
EP008B: Chlorophyll b	1	mg/m³	<1					
EP008: Chlorophyll (QCLot: 4090818)								
EP008B: Chlorophyll b	1	mg/m³	<1					
EP008: Chlorophyll (QCLot: 4090819)								
EP008: Chlorophyll a	1	mg/m³	<1	20 mg/m³	98.5	70.0	130	
EP008: Pheophytin a	1	mg/m³	<1					
EP008: Chlorophyll (QCLot: 4090820)								
EP008: Chlorophyll a	1	mg/m³	<1	20 mg/m³	107	70.0	130	
EP008: Pheophytin a	1	mg/m³	<1					

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## Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: WATER				Matrix Spike (MS) Report				
				Spike	SpikeRecovery(%)	Acceptable Li	mits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High	
EK055G-SW: Amn	onia as N by Discrete Analyser in Saline Water (QCLot:	4086799)						
EM2125413-002	3.2km south of Salt Creek (land)	EK055G-SW: Ammonia as N	7664-41-7	0.5 mg/L	# 41.7	70.0	130	
EK055G-SW: Amm	onia as N by Discrete Analyser in Saline Water (QCLot:	4086801)						
EM2125413-022	Villa de Yumpa	EK055G-SW: Ammonia as N	7664-41-7	0.5 mg/L	# 56.6	70.0	130	
ED045G: Chloride	by Discrete Analyser (QCLot: 4081855)							
EM2125167-002	Anonymous	ED045G: Chloride	16887-00-6	2000 mg/L	120	70.0	142	
ED045G: Chloride	by Discrete Analyser (QCLot: 4081859)							
EM2125413-019	Tilley Swamp Drain D/S Nth Outlet	ED045G: Chloride	16887-00-6	400 mg/L	# Not	70.0	142	
					Determined			
EG052G: Silica by	Discrete Analyser (QCLot: 4081858)							
EM2125413-002	3.2km south of Salt Creek (land)	EG052G: Reactive Silica		5 mg/L	80.8	80.0	120	
EG052G: Silica by	Discrete Analyser (QCLot: 4081862)							
EM2125413-022	Villa de Yumpa	EG052G: Reactive Silica		5 mg/L	# 74.3	80.0	120	
EK057G: Nitrite as	N by Discrete Analyser (QCLot: 4081857)							
EM2125413-001	1.8km west of Salt Creek	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	105	80.0	114	
EK057G: Nitrite as	N by Discrete Analyser (QCLot: 4081861)							
EM2125413-021	Tilley Swamp Drain Watercourse Outlet	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	106	80.0	114	
EK059G: Nitrite p	us Nitrate as N (NOx) by Discrete Analyser (QCLot: 408	6798)						
EM2125413-002	3.2km south of Salt Creek (land)	EK059G: Nitrite + Nitrate as N		0.5 mg/L	81.8	70.0	130	
EK059G: Nitrite p	us Nitrate as N (NOx) by Discrete Analyser (QCLot: 408	6800)						
EM2125413-022	Villa de Yumpa	EK059G: Nitrite + Nitrate as N		0.5 mg/L	78.3	70.0	130	
EK061G: Total Kje	Idahl Nitrogen By Discrete Analyser (QCLot: 4089699)							
EM2125394-002	Anonymous	EK061G: Total Kjeldahl Nitrogen as N		5 mg/L	105	70.0	130	
EK061G: Total Kje	Idahl Nitrogen By Discrete Analyser (QCLot: 4089701)							
EM2125413-014	Snipe Point	EK061G: Total Kjeldahl Nitrogen as N		5 mg/L	91.3	70.0	130	
EK067G: Total Pho	osphorus as P by Discrete Analyser (QCLot: 4089698)							
EM2125394-002	Anonymous	EK067G: Total Phosphorus as P		1 mg/L	78.2	70.0	130	
EK067G: Total Pho	osphorus as P by Discrete Analyser (QCLot: 4089700)							
EM2125413-014	Snipe Point	EK067G: Total Phosphorus as P		1 mg/L	77.3	70.0	130	
EK071G: Reactive	Phosphorus as P by discrete analyser (QCLot: 4081854	•		-				

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Sub-Matrix: WATER					Matrix Spike (MS) Report				
				Spike	imits (%)				
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High		
EK071G: Reactive Phosphorus as P by discrete analyser (QCLot: 4081854) - continued									
EM2125167-002	Anonymous	EK071G: Reactive Phosphorus as P	14265-44-2	25 mg/L	# Not Determined	79.0	123		
EK071G: Reactive	Phosphorus as P by discrete analyser (QCLot: 4081860	)							
EM2125413-019	Tilley Swamp Drain D/S Nth Outlet	EK071G: Reactive Phosphorus as P	14265-44-2	0.5 mg/L	114	79.0	123		
EP002: Dissolved	Organic Carbon (DOC) (QCLot: 4084259)								
EM2125413-002	3.2km south of Salt Creek (land)	EP002: Dissolved Organic Carbon		100 mg/L	116	75.0	117		
EP002: Dissolved	Organic Carbon (DOC) (QCLot: 4084262)								
EM2125413-022	Villa de Yumpa	EP002: Dissolved Organic Carbon		500 mg/L	# 123	75.0	117		
EP005: Total Organ	nic Carbon (TOC) (QCLot: 4084260)								
EM2125413-002	3.2km south of Salt Creek (land)	EP005: Total Organic Carbon		100 mg/L	110	76.6	125		
EP005: Total Orga	nic Carbon (TOC) (QCLot: 4084261)								
EM2125413-022	Villa de Yumpa	EP005: Total Organic Carbon		100 mg/L	117	76.6	125		