

## QUALITY CONTROL REPORT

|                                |   |                                |   |
|--------------------------------|---|--------------------------------|---|
| <b>Work Order</b>              | <b>: EM2121437</b>                                    | <b>Page</b>                    | <b>: 1 of 9</b>                                     |
| <b>Client</b>                  | <b>: Dept for Environment &amp; Water</b>             | <b>Laboratory</b>              | <b>: Environmental Division Melbourne</b>           |
| <b>Contact</b>                 | <b>: Mr FRANK MANGERUCA</b>                           | <b>Contact</b>                 | <b>: Kieren Burns</b>                               |
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| <b>Project</b>                 | <b>: HCHB - Phase 1</b>                               | <b>Date Samples Received</b>   | <b>: 28-Oct-2021</b>                                |
| <b>Order number</b>            | <b>: ----</b>   | <b>Date Analysis Commenced</b> | <b>: 28-Oct-2021</b>                                |
| <b>C-O-C number</b>            | <b>: ----</b>   | <b>Issue Date</b>              | <b>: 12-Nov-2021</b>                                |
| <b>Sampler</b>                 | <b>: ----</b>   |                                |   |
| <b>Site</b>                    | <b>: ----</b>   |                                |   |
| <b>Quote number</b>            | <b>: AD/052/20 V2</b>                                 |                                |   |
| <b>No. of samples received</b> | <b>: 22</b>   |                                |   |
| <b>No. of samples analysed</b> | <b>: 22</b>   |                                |   |



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 not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

### Signatories

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.

| <i>Signatories</i> | <i>Position</i>                     | <i>Accreditation Category</i>         |
|--------------------|-------------------------------------|---------------------------------------|
| 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   |



## 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; Limit between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

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 (%) |
| <b>EK055G-SW: Ammonia as N by Discrete Analyser in Saline Water (QC Lot: 3984443)</b> |  |  |             |                                   |      |                 |                  |         |                    |
| EM2121437-001   | 1.8km west of Salt Creek               | EK055G-SW: Ammonia as N                            | 7664-41-7   | 0.02                              | mg/L | 0.08            | 0.10             | 18.1    | No Limit           |
| <b>EK055G-SW: Ammonia as N by Discrete Analyser in Saline Water (QC Lot: 3997898)</b> |  |  |             |                                   |      |                 |                  |         |                    |
| EM2121437-002   | 3.2km south of Salt Creek (land) NR    | EK055G-SW: Ammonia as N                            | 7664-41-7   | 0.02                              | mg/L | <0.02           | 0.02             | 0.0     | No Limit           |
| EM2121437-018   | Tauwiche U/S                           | EK055G-SW: Ammonia as N                            | 7664-41-7   | 0.02                              | mg/L | 0.29            | 0.22             | 27.5    | 0% - 50%           |
| <b>EA015: Total Dissolved Solids dried at 180 ± 5 °C (QC Lot: 3991400)</b>            |  |  |             |                                   |      |                 |                  |         |                    |
| EM2121419-002   | Anonymous                              | EA015H: Total Dissolved Solids @180°C              | ----        | 10                                | mg/L | 1950            | 2020             | 3.7     | 0% - 20%           |
| EM2121266-001   | Anonymous                              | EA015H: Total Dissolved Solids @180°C              | ----        | 10                                | mg/L | 3060            | 3090             | 0.8     | 0% - 20%           |
| <b>EA015: Total Dissolved Solids dried at 180 ± 5 °C (QC Lot: 3991403)</b>            |  |  |             |                                   |      |                 |                  |         |                    |
| EM2121437-006   | McGrath Flat North                     | EA015H: Total Dissolved Solids @180°C              | ----        | 10                                | mg/L | 87900           | 88800            | 1.0     | 0% - 20%           |
| EM2121437-015   | South Policeman Point / Seagull Island | EA015H: Total Dissolved Solids @180°C              | ----        | 10                                | mg/L | 77300           | 78600            | 1.6     | 0% - 20%           |
| <b>EA045: Turbidity (QC Lot: 3983275)</b>   |  |  |             |                                   |      |                 |                  |         |                    |
| EM2121333-001   | Anonymous                              | EA045: Turbidity                                   | ----        | 0.1                               | NTU  | 10.2            | 9.0              | 12.3    | 0% - 20%           |
| EM2121437-011   | North Jacks Point                      | EA045: Turbidity                                   | ----        | 0.1                               | NTU  | 11.3            | 11.2             | 0.9     | 0% - 20%           |
| <b>EA045: Turbidity (QC Lot: 3984860)</b>   |  |  |             |                                   |      |                 |                  |         |                    |
| EM2119635-016   | Anonymous                              | EA045: Turbidity                                   | ----        | 0.1                               | NTU  | 13.9            | 13.6             | 2.2     | 0% - 20%           |
| EM2121437-002   | 3.2km south of Salt Creek (land) NR    | EA045: Turbidity                                   | ----        | 0.1                               | NTU  | 6.4             | 6.3              | 2.0     | 0% - 20%           |
| <b>ED037P: Alkalinity by PC Titrator (QC Lot: 3996233)</b>                            |  |  |             |                                   |      |                 |                  |         |                    |
| EM2121437-002   | 3.2km south of Salt Creek (land) NR    | ED037-P: Hydroxide Alkalinity as CaCO <sub>3</sub> | DMO-210-001 | 1                                 | mg/L | <1              | <1               | 0.0     | No Limit           |
|   |  | ED037-P: Carbonate Alkalinity as CaCO <sub>3</sub> | 3812-32-6   | 1                                 | mg/L | 11              | 16               | 38.0    | 0% - 50%           |

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 Client : Dept for Environment & Water  
 Project : HCHB - Phase 1



| 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 by PC Titrator (QC Lot: 3996233) - continued |                                     |  |             |                                   |      |                 |                  |         |                    |
| EM2121437-002   | 3.2km south of Salt Creek (land) NR | ED037-P: Bicarbonate Alkalinity as CaCO3 | 71-52-3     | 1                                 | mg/L | 236             | 232              | 1.6     | 0% - 20%           |
|   |                                     | ED037-P: Total Alkalinity as CaCO3       | ----        | 1                                 | mg/L | 247             | 248              | 0.6     | 0% - 20%           |
| EM2121437-012   | Parnka Point NR                     | 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              | 4                | 116     | No Limit           |
|   |                                     | ED037-P: Bicarbonate Alkalinity as CaCO3 | 71-52-3     | 1                                 | mg/L | 232             | 230              | 1.1     | 0% - 20%           |
|   |                                     | ED037-P: Total Alkalinity as CaCO3       | ----        | 1                                 | mg/L | 232             | 233              | 0.5     | 0% - 20%           |
| ED037P: Alkalinity by PC Titrator (QC Lot: 3996234)             |                                     |  |             |                                   |      |                 |                  |         |                    |
| EM2121576-004   | 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 | 1360            | 1340             | 1.2     | 0% - 20%           |
|   |                                     | ED037-P: Total Alkalinity as CaCO3       | ----        | 1                                 | mg/L | 1360            | 1340             | 1.2     | 0% - 20%           |
| EM2121562-002   | 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 | 666             | 672              | 0.8     | 0% - 20%           |
|   |                                     | ED037-P: Total Alkalinity as CaCO3       | ----        | 1                                 | mg/L | 666             | 672              | 0.8     | 0% - 20%           |
| ED045G: Chloride by Discrete Analyser (QC Lot: 3983513)         |                                     |  |             |                                   |      |                 |                  |         |                    |
| EM2121260-009   | Anonymous                           | ED045G: Chloride                         | 16887-00-6  | 1                                 | mg/L | 1970            | 1970             | 0.2     | 0% - 20%           |
| EM2121260-001   | Anonymous                           | ED045G: Chloride                         | 16887-00-6  | 1                                 | mg/L | 207             | 203              | 1.9     | 0% - 20%           |
| ED045G: Chloride by Discrete Analyser (QC Lot: 3983518)         |                                     |  |             |                                   |      |                 |                  |         |                    |
| EM2121459-003   | Anonymous                           | ED045G: Chloride                         | 16887-00-6  | 1                                 | mg/L | 122             | 124              | 1.7     | 0% - 20%           |
| EM2121437-011   | North Jacks Point                   | ED045G: Chloride                         | 16887-00-6  | 1                                 | mg/L | 47200           | 43400            | 8.4     | 0% - 20%           |
| ED045G: Chloride by Discrete Analyser (QC Lot: 3984988)         |                                     |  |             |                                   |      |                 |                  |         |                    |
| EM2121437-009   | Murray Mouth NR                     | ED045G: Chloride                         | 16887-00-6  | 1                                 | mg/L | 631             | 654              | 3.7     | 0% - 20%           |
| EM2121394-002   | Anonymous                           | ED045G: Chloride                         | 16887-00-6  | 1                                 | mg/L | 1040            | 1010             | 3.0     | 0% - 20%           |
| EG052G: Silica by Discrete Analyser (QC Lot: 3983515)           |                                     |  |             |                                   |      |                 |                  |         |                    |
| EM2121437-018   | Tauwitihere U/S                     | EG052G: Reactive Silica                  | ----        | 0.05                              | mg/L | 0.25            | 0.24             | 0.0     | No Limit           |
| EM2121437-001   | 1.8km west of Salt Creek            | EG052G: Reactive Silica                  | ----        | 0.05                              | mg/L | 1.40            | 1.38             | 1.7     | 0% - 20%           |
| EG052G: Silica by Discrete Analyser (QC Lot: 3984989)           |                                     |  |             |                                   |      |                 |                  |         |                    |
| EM2121437-022   | Villa de Yumpa NR                   | EG052G: Reactive Silica                  | ----        | 0.05                              | mg/L | 0.43            | 0.36             | 16.5    | No Limit           |
| EM2121437-002   | 3.2km south of Salt Creek (land) NR | EG052G: Reactive Silica                  | ----        | 0.05                              | mg/L | 1.10            | 1.06             | 3.5     | 0% - 20%           |
| EK057G: Nitrite as N by Discrete Analyser (QC Lot: 3983512)     |                                     |  |             |                                   |      |                 |                  |         |                    |
| EM2121260-010   | Anonymous                           | EK057G: Nitrite as N                     | 14797-65-0  | 0.01                              | mg/L | <0.01           | <0.01            | 0.0     | No Limit           |
| EM2121260-001   | Anonymous                           | EK057G: Nitrite as N                     | 14797-65-0  | 0.01                              | mg/L | <0.01           | <0.01            | 0.0     | No Limit           |
| EK057G: Nitrite as N by Discrete Analyser (QC Lot: 3983517)     |                                     |  |             |                                   |      |                 |                  |         |                    |
| EM2121437-011   | North Jacks Point                   | EK057G: Nitrite as N                     | 14797-65-0  | 0.01                              | mg/L | <0.01           | <0.01            | 0.0     | No Limit           |
| EK057G: Nitrite as N by Discrete Analyser (QC Lot: 3984987)     |                                     |  |             |                                   |      |                 |                  |         |                    |
| EM2121437-012   | Parnka Point NR                     | EK057G: Nitrite as N                     | 14797-65-0  | 0.01                              | mg/L | <0.01           | <0.01            | 0.0     | No Limit           |



| Sub-Matrix: <b>WATER</b>  |  |                                      |            | Laboratory Duplicate (DUP) Report |      |                 |                  |         |                    |
|---|--|--------------------------------------|------------|-----------------------------------|------|-----------------|------------------|---------|--------------------|
| Laboratory sample ID  | Sample ID                                | Method: Compound                     | CAS Number | LOR                               | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
| <b>EK057G: Nitrite as N by Discrete Analyser (QC Lot: 3984987) - continued</b>        |  |                                      |            |                                   |      |                 |                  |         |                    |
| EM2121394-002   | Anonymous                                | EK057G: Nitrite as N                 | 14797-65-0 | 0.01                              | mg/L | <0.01           | <0.01            | 0.0     | No Limit           |
| <b>EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 3984442)</b> |  |                                      |            |                                   |      |                 |                  |         |                    |
| EM2121371-009   | Anonymous                                | EK059G: Nitrite + Nitrate as N       | ----       | 0.01                              | mg/L | 0.06            | 0.06             | 0.0     | No Limit           |
| EM2121437-013   | Salt Creek Outlet                        | EK059G: Nitrite + Nitrate as N       | ----       | 0.01                              | mg/L | <0.01           | <0.01            | 0.0     | No Limit           |
| <b>EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 3997899)</b> |  |                                      |            |                                   |      |                 |                  |         |                    |
| EM2121437-002   | 3.2km south of Salt Creek (land) NR      | EK059G: Nitrite + Nitrate as N       | ----       | 0.01                              | mg/L | <0.01           | <0.01            | 0.0     | No Limit           |
| EM2121437-018   | Tauwitchere U/S                          | EK059G: Nitrite + Nitrate as N       | ----       | 0.01                              | mg/L | <0.01           | <0.01            | 0.0     | No Limit           |
| <b>EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 3995086)</b>         |  |                                      |            |                                   |      |                 |                  |         |                    |
| EM2121437-001   | 1.8km west of Salt Creek                 | EK061G: Total Kjeldahl Nitrogen as N | ----       | 0.1                               | mg/L | 1.4             | 1.3              | 11.5    | 0% - 50%           |
| EM2121437-010   | Noonameena                               | EK061G: Total Kjeldahl Nitrogen as N | ----       | 0.1                               | mg/L | 0.9             | 0.8              | 17.7    | No Limit           |
| <b>EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 3995089)</b>         |  |                                      |            |                                   |      |                 |                  |         |                    |
| EM2121528-001   | Anonymous                                | EK061G: Total Kjeldahl Nitrogen as N | ----       | 0.1                               | mg/L | 0.3             | 0.2              | 0.0     | No Limit           |
| EM2121437-021   | Tilley Swamp Drain Watercourse Outlet NR | EK061G: Total Kjeldahl Nitrogen as N | ----       | 0.1                               | mg/L | 0.4             | 0.3              | 0.0     | No Limit           |
| <b>EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 3995087)</b>           |  |                                      |            |                                   |      |                 |                  |         |                    |
| EM2121437-010   | Noonameena                               | EK067G: Total Phosphorus as P        | ----       | 0.01                              | mg/L | 0.66            | # 0.46           | 34.4    | 0% - 20%           |
| EM2121437-001   | 1.8km west of Salt Creek                 | EK067G: Total Phosphorus as P        | ----       | 0.01                              | mg/L | 0.62            | 0.56             | 9.4     | 0% - 20%           |
| <b>EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 3995088)</b>           |  |                                      |            |                                   |      |                 |                  |         |                    |
| EM2121528-001   | Anonymous                                | EK067G: Total Phosphorus as P        | ----       | 0.01                              | mg/L | 0.04            | 0.03             | 0.0     | No Limit           |
| EM2121437-021   | Tilley Swamp Drain Watercourse Outlet NR | EK067G: Total Phosphorus as P        | ----       | 0.01                              | mg/L | 0.02            | 0.03             | 0.0     | No Limit           |
| <b>EK071G: Reactive Phosphorus as P by discrete analyser (QC Lot: 3983516)</b>        |  |                                      |            |                                   |      |                 |                  |         |                    |
| EM2121437-017   | Tauwitchere D/S                          | EK071G: Reactive Phosphorus as P     | 14265-44-2 | 0.01                              | mg/L | <0.01           | <0.01            | 0.0     | No Limit           |
| EM2121437-001   | 1.8km west of Salt Creek                 | EK071G: Reactive Phosphorus as P     | 14265-44-2 | 0.01                              | mg/L | 0.01            | <0.01            | 0.0     | No Limit           |
| <b>EK071G: Reactive Phosphorus as P by discrete analyser (QC Lot: 3984990)</b>        |  |                                      |            |                                   |      |                 |                  |         |                    |
| EM2121437-021   | Tilley Swamp Drain Watercourse Outlet NR | EK071G: Reactive Phosphorus as P     | 14265-44-2 | 0.01                              | mg/L | 0.01            | <0.01            | 0.0     | No Limit           |
| EM2121437-002   | 3.2km south of Salt Creek (land) NR      | EK071G: Reactive Phosphorus as P     | 14265-44-2 | 0.01                              | mg/L | <0.01           | <0.01            | 0.0     | No Limit           |
| <b>EP002: Dissolved Organic Carbon (DOC) (QC Lot: 3984189)</b>                        |  |                                      |            |                                   |      |                 |                  |         |                    |
| EM2121437-001   | 1.8km west of Salt Creek                 | EP002: Dissolved Organic Carbon      | ----       | 1                                 | mg/L | 25              | 25               | 0.0     | 0% - 20%           |
| EM2121446-001   | Anonymous                                | EP002: Dissolved Organic Carbon      | ----       | 1                                 | mg/L | 4               | 4                | 0.0     | No Limit           |
| <b>EP002: Dissolved Organic Carbon (DOC) (QC Lot: 3998818)</b>                        |  |                                      |            |                                   |      |                 |                  |         |                    |
| EM2121437-002   | 3.2km south of Salt Creek (land) NR      | EP002: Dissolved Organic Carbon      | ----       | 1                                 | mg/L | 24              | 26               | 9.3     | No Limit           |
| EM2121437-021   | Tilley Swamp Drain Watercourse Outlet NR | EP002: Dissolved Organic Carbon      | ----       | 1                                 | mg/L | 5               | 6                | 0.0     | No Limit           |

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 Work Order : EM2121437  
 Client : Dept for Environment & Water  
 Project : HCHB - Phase 1



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 (%) |
| <b>EP005: Total Organic Carbon (TOC) (QC Lot: 3984190)</b> |   |                             |            |                                   |       |                 |                  |         |                    |
| EM2121437-001  | 1.8km west of Salt Creek                    | EP005: Total Organic Carbon | ----       | 1                                 | mg/L  | 30              | 30               | 0.0     | 0% - 20%           |
| EM2121437-017  | Tauwitchere D/S                             | EP005: Total Organic Carbon | ----       | 1                                 | mg/L  | 10              | 8                | 14.2    | No Limit           |
| <b>EP005: Total Organic Carbon (TOC) (QC Lot: 3998819)</b> |   |                             |            |                                   |       |                 |                  |         |                    |
| EM2121437-002  | 3.2km south of Salt Creek<br>(land) NR      | EP005: Total Organic Carbon | ----       | 1                                 | mg/L  | 32              | 31               | 0.0     | 0% - 20%           |
| EM2121437-021  | Tilley Swamp Drain<br>Watercourse Outlet NR | EP005: Total Organic Carbon | ----       | 1                                 | mg/L  | 6               | 6                | 0.0     | No Limit           |
| <b>EP008: Chlorophyll (QC Lot: 3992506)</b>                |   |                             |            |                                   |       |                 |                  |         |                    |
| EM2121437-010  | Noonameena                                  | EP008B: Chlorophyll b       | ----       | 1                                 | mg/m³ | <1              | <1               | 0.0     | No Limit           |





## 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**

| Sub-Matrix: WATER   |            |      |      | Method Blank (MB)<br>Report | Laboratory Control Spike (LCS) Report |                    |                       |      |
|---|------------|------|------|-----------------------------|---------------------------------------|--------------------|-----------------------|------|
|   |            |      |      |                             | Spike<br>Concentration                | Spike Recovery (%) | Acceptable Limits (%) |      |
| Method: Compound  | CAS Number | LOR  | Unit | Result                      |                                       | LCS                | Low                   | High |
| EK055G-SW: Ammonia as N by Discrete Analyser in Saline Water (QCLot: 3984443) |            |      |      |                             |                                       |                    |                       |      |
| EK055G-SW: Ammonia as N   | 7664-41-7  | 0.02 | mg/L | <0.02                       | 0.5 mg/L                              | 101                | 81.1                  | 124  |
| EK055G-SW: Ammonia as N by Discrete Analyser in Saline Water (QCLot: 3997898) |            |      |      |                             |                                       |                    |                       |      |
| EK055G-SW: Ammonia as N   | 7664-41-7  | 0.02 | mg/L | <0.02                       | 0.5 mg/L                              | 106                | 81.1                  | 124  |
| EA015: Total Dissolved Solids dried at 180 ± 5 °C (QCLot: 3991400)            |            |      |      |                             |                                       |                    |                       |      |
| EA015H: Total Dissolved Solids @180°C   | ----       | 10   | mg/L | <10                         | 2000 mg/L                             | 101                | 91.0                  | 110  |
|   |            |      |      | <10                         | 293 mg/L                              | 101                | 91.0                  | 110  |
| EA015: Total Dissolved Solids dried at 180 ± 5 °C (QCLot: 3991403)            |            |      |      |                             |                                       |                    |                       |      |
| EA015H: Total Dissolved Solids @180°C   | ----       | 10   | mg/L | <10                         | 2000 mg/L                             | 99.4               | 91.0                  | 110  |
|   |            |      |      | <10                         | 293 mg/L                              | 98.6               | 91.0                  | 110  |
| EA045: Turbidity (QCLot: 3983275)   |            |      |      |                             |                                       |                    |                       |      |
| EA045: Turbidity  | ----       | 0.1  | NTU  | <0.1                        | 40 NTU                                | 99.5               | 88.1                  | 110  |
| EA045: Turbidity (QCLot: 3984860)   |            |      |      |                             |                                       |                    |                       |      |
| EA045: Turbidity  | ----       | 0.1  | NTU  | <0.1                        | 40 NTU                                | 99.5               | 88.1                  | 110  |
| ED037P: Alkalinity by PC Titrator (QCLot: 3996233)                            |            |      |      |                             |                                       |                    |                       |      |
| ED037-P: Total Alkalinity as CaCO3  | ----       | ---- | mg/L | ----                        | 200 mg/L                              | 98.1               | 85.0                  | 116  |
| ED037P: Alkalinity by PC Titrator (QCLot: 3996234)                            |            |      |      |                             |                                       |                    |                       |      |
| ED037-P: Total Alkalinity as CaCO3  | ----       | ---- | mg/L | ----                        | 200 mg/L                              | 108                | 85.0                  | 116  |
| ED045G: Chloride by Discrete Analyser (QCLot: 3983513)                        |            |      |      |                             |                                       |                    |                       |      |
| ED045G: Chloride  | 16887-00-6 | 1    | mg/L | <1                          | 10 mg/L                               | 115                | 85.0                  | 115  |
|   |            |      |      | <1                          | 1000 mg/L                             | 107                | 85.0                  | 122  |
| ED045G: Chloride by Discrete Analyser (QCLot: 3983518)                        |            |      |      |                             |                                       |                    |                       |      |
| ED045G: Chloride  | 16887-00-6 | 1    | mg/L | <1                          | 10 mg/L                               | 97.0               | 85.0                  | 115  |
|   |            |      |      | <1                          | 1000 mg/L                             | 107                | 85.0                  | 122  |
| ED045G: Chloride by Discrete Analyser (QCLot: 3984988)                        |            |      |      |                             |                                       |                    |                       |      |
| ED045G: Chloride  | 16887-00-6 | 1    | mg/L | <1                          | 10 mg/L                               | 91.2               | 85.0                  | 115  |
|   |            |      |      | <1                          | 1000 mg/L                             | 103                | 85.0                  | 122  |
| EG052G: Silica by Discrete Analyser (QCLot: 3983515)                          |            |      |      |                             |                                       |                    |                       |      |
| EG052G: Reactive Silica   | ----       | 0.05 | mg/L | <0.05                       | 5 mg/L                                | 107                | 78.9                  | 118  |
| EG052G: Silica by Discrete Analyser (QCLot: 3984989)                          |            |      |      |                             |                                       |                    |                       |      |
| EG052G: Reactive Silica   | ----       | 0.05 | mg/L | <0.05                       | 5 mg/L                                | 109                | 78.9                  | 118  |
| EK057G: Nitrite as N by Discrete Analyser (QCLot: 3983512)                    |            |      |      |                             |                                       |                    |                       |      |
| EK057G: Nitrite as N  | 14797-65-0 | 0.01 | mg/L | <0.01                       | 0.5 mg/L                              | 98.5               | 90.9                  | 112  |



Sub-Matrix: **WATER**

|  |            |      |                   | Method Blank (MB)<br>Report | Laboratory Control Spike (LCS) Report |                           |                       |      |
|--|------------|------|-------------------|-----------------------------|---------------------------------------|---------------------------|-----------------------|------|
|  |            |      |                   |                             | Spike<br>Concentration                | Spike Recovery (%)<br>LCS | Acceptable Limits (%) |      |
| Method: Compound   | CAS Number | LOR  | Unit              | Result                      |                                       |                           | Low                   | High |
| <b>EK057G: Nitrite as N by Discrete Analyser (QCLot: 3983517)</b>                    |            |      |                   |                             |                                       |                           |                       |      |
| EK057G: Nitrite as N   | 14797-65-0 | 0.01 | mg/L              | <0.01                       | 0.5 mg/L                              | 97.9                      | 90.9                  | 112  |
| <b>EK057G: Nitrite as N by Discrete Analyser (QCLot: 3984987)</b>                    |            |      |                   |                             |                                       |                           |                       |      |
| EK057G: Nitrite as N   | 14797-65-0 | 0.01 | mg/L              | <0.01                       | 0.5 mg/L                              | 96.4                      | 90.9                  | 112  |
| <b>EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 3984442)</b> |            |      |                   |                             |                                       |                           |                       |      |
| EK059G: Nitrite + Nitrate as N   | ----       | 0.01 | mg/L              | <0.01                       | 0.5 mg/L                              | 106                       | 90.0                  | 117  |
| <b>EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 3997899)</b> |            |      |                   |                             |                                       |                           |                       |      |
| EK059G: Nitrite + Nitrate as N   | ----       | 0.01 | mg/L              | <0.01                       | 0.5 mg/L                              | 106                       | 90.0                  | 117  |
| <b>EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 3995086)</b>         |            |      |                   |                             |                                       |                           |                       |      |
| EK061G: Total Kjeldahl Nitrogen as N   | ----       | 0.1  | mg/L              | <0.1                        | 5 mg/L                                | 70.8                      | 70.0                  | 117  |
| <b>EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 3995089)</b>         |            |      |                   |                             |                                       |                           |                       |      |
| EK061G: Total Kjeldahl Nitrogen as N   | ----       | 0.1  | mg/L              | <0.1                        | 5 mg/L                                | 82.6                      | 70.0                  | 117  |
| <b>EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 3995087)</b>           |            |      |                   |                             |                                       |                           |                       |      |
| EK067G: Total Phosphorus as P  | ----       | 0.01 | mg/L              | <0.01                       | 2.21 mg/L                             | 100                       | 71.9                  | 114  |
| <b>EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 3995088)</b>           |            |      |                   |                             |                                       |                           |                       |      |
| EK067G: Total Phosphorus as P  | ----       | 0.01 | mg/L              | <0.01                       | 2.21 mg/L                             | 97.0                      | 71.9                  | 114  |
| <b>EK071G: Reactive Phosphorus as P by discrete analyser (QCLot: 3983516)</b>        |            |      |                   |                             |                                       |                           |                       |      |
| EK071G: Reactive Phosphorus as P   | 14265-44-2 | 0.01 | mg/L              | <0.01                       | 0.5 mg/L                              | 115                       | 92.7                  | 119  |
| <b>EK071G: Reactive Phosphorus as P by discrete analyser (QCLot: 3984990)</b>        |            |      |                   |                             |                                       |                           |                       |      |
| EK071G: Reactive Phosphorus as P   | 14265-44-2 | 0.01 | mg/L              | <0.01                       | 0.5 mg/L                              | 114                       | 92.7                  | 119  |
| <b>EP002: Dissolved Organic Carbon (DOC) (QCLot: 3984189)</b>                        |            |      |                   |                             |                                       |                           |                       |      |
| EP002: Dissolved Organic Carbon  | ----       | 1    | mg/L              | <1                          | 100 mg/L                              | 98.0                      | 83.0                  | 115  |
| <b>EP002: Dissolved Organic Carbon (DOC) (QCLot: 3998818)</b>                        |            |      |                   |                             |                                       |                           |                       |      |
| EP002: Dissolved Organic Carbon  | ----       | 1    | mg/L              | <1                          | 100 mg/L                              | 95.7                      | 83.0                  | 115  |
| <b>EP005: Total Organic Carbon (TOC) (QCLot: 3984190)</b>                            |            |      |                   |                             |                                       |                           |                       |      |
| EP005: Total Organic Carbon  | ----       | 1    | mg/L              | <1                          | 100 mg/L                              | 98.0                      | 81.2                  | 110  |
| <b>EP005: Total Organic Carbon (TOC) (QCLot: 3998819)</b>                            |            |      |                   |                             |                                       |                           |                       |      |
| EP005: Total Organic Carbon  | ----       | 1    | mg/L              | <1                          | 100 mg/L                              | 95.9                      | 81.2                  | 110  |
| <b>EP008: Chlorophyll (QCLot: 3992506)</b>   |            |      |                   |                             |                                       |                           |                       |      |
| EP008B: Chlorophyll b  | ----       | 1    | mg/m <sup>3</sup> | <1                          | ----                                  | ----                      | ----                  | ---- |
| <b>EP008: Chlorophyll (QCLot: 3992507)</b>   |            |      |                   |                             |                                       |                           |                       |      |
| EP008B: Chlorophyll b  | ----       | 1    | mg/m <sup>3</sup> | <1                          | ----                                  | ----                      | ----                  | ---- |
| <b>EP008: Chlorophyll (QCLot: 3992517)</b>   |            |      |                   |                             |                                       |                           |                       |      |
| EP008: Chlorophyll a   | ----       | 1    | mg/m <sup>3</sup> | <1                          | 20 mg/m <sup>3</sup>                  | 110                       | 70.0                  | 130  |
| EP008: Pheophytin a  | ----       | 1    | mg/m <sup>3</sup> | <1                          | ----                                  | ----                      | ----                  | ---- |
| <b>EP008: Chlorophyll (QCLot: 3992518)</b>   |            |      |                   |                             |                                       |                           |                       |      |
| EP008: Chlorophyll a   | ----       | 1    | mg/m <sup>3</sup> | <1                          | 20 mg/m <sup>3</sup>                  | 109                       | 70.0                  | 130  |



Sub-Matrix: **WATER**

| Sub-Matrix: WATER                               |  |            |     | Method Blank (MB)<br>Report | Laboratory Control Spike (LCS) Report |                        |                           |  |      |
|---|--|------------|-----|-----------------------------|---------------------------------------|------------------------|---------------------------|--|------|
| Method: Compound                                |  | CAS Number | LOR |                             | Unit                                  | Spike<br>Concentration | Spike Recovery (%)<br>LCS | Acceptable Limits (%)<br>Low      High |      |
| EP008: Chlorophyll (QCLot: 3992518) - continued |  |            |     |                             |                                       |                        |                           |  |      |
| EP008: Pheophytin a                             |  | ----       | 1   | mg/m³                       | <1                                    | ----                   | ----                      | ----                                   | ---- |

## 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**

| Sub-Matrix: <b>WATER</b>  |                   |                                |            | Matrix Spike (MS) Report |                  |                       |      |
|---|-------------------|--------------------------------|------------|--------------------------|------------------|-----------------------|------|
|   |                   |                                |            | Spike                    | SpikeRecovery(%) | Acceptable Limits (%) |      |
| Laboratory sample ID  | Sample ID         | Method: Compound               | CAS Number | Concentration            | MS               | Low                   | High |
| EK055G-SW: Ammonia as N by Discrete Analyser in Saline Water (QCLot: 3984443) |                   |                                |            |                          |                  |                       |      |
| EM2121437-003   | Bonneys           | EK055G-SW: Ammonia as N        | 7664-41-7  | 0.5 mg/L                 | 107              | 70.0                  | 130  |
| EK055G-SW: Ammonia as N by Discrete Analyser in Saline Water (QCLot: 3997898) |                   |                                |            |                          |                  |                       |      |
| EM2121437-005   | Mark Point NR     | EK055G-SW: Ammonia as N        | 7664-41-7  | 0.5 mg/L                 | 89.6             | 70.0                  | 130  |
| ED045G: Chloride by Discrete Analyser (QCLot: 3983513)                        |                   |                                |            |                          |                  |                       |      |
| EM2121260-002   | Anonymous         | ED045G: Chloride               | 16887-00-6 | 400 mg/L                 | 107              | 70.0                  | 142  |
| ED045G: Chloride by Discrete Analyser (QCLot: 3983518)                        |                   |                                |            |                          |                  |                       |      |
| EM2121437-013   | Salt Creek Outlet | ED045G: Chloride               | 16887-00-6 | 400 mg/L                 | # Not Determined | 70.0                  | 142  |
| ED045G: Chloride by Discrete Analyser (QCLot: 3984988)                        |                   |                                |            |                          |                  |                       |      |
| EM2121394-007   | Anonymous         | ED045G: Chloride               | 16887-00-6 | 400 mg/L                 | 74.2             | 70.0                  | 142  |
| EG052G: Silica by Discrete Analyser (QCLot: 3983515)                          |                   |                                |            |                          |                  |                       |      |
| EM2121437-003   | Bonneys           | EG052G: Reactive Silica        | ----       | 5 mg/L                   | 94.9             | 80.0                  | 120  |
| EG052G: Silica by Discrete Analyser (QCLot: 3984989)                          |                   |                                |            |                          |                  |                       |      |
| EM2121437-005   | Mark Point NR     | EG052G: Reactive Silica        | ----       | 5 mg/L                   | 97.0             | 80.0                  | 120  |
| EK057G: Nitrite as N by Discrete Analyser (QCLot: 3983512)                    |                   |                                |            |                          |                  |                       |      |
| EM2121260-002   | Anonymous         | EK057G: Nitrite as N           | 14797-65-0 | 0.5 mg/L                 | 97.0             | 80.0                  | 114  |
| EK057G: Nitrite as N by Discrete Analyser (QCLot: 3983517)                    |                   |                                |            |                          |                  |                       |      |
| EM2121437-013   | Salt Creek Outlet | EK057G: Nitrite as N           | 14797-65-0 | 0.5 mg/L                 | 95.9             | 80.0                  | 114  |
| EK057G: Nitrite as N by Discrete Analyser (QCLot: 3984987)                    |                   |                                |            |                          |                  |                       |      |
| EM2121394-007   | Anonymous         | EK057G: Nitrite as N           | 14797-65-0 | 0.5 mg/L                 | 94.8             | 80.0                  | 114  |
| EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 3984442) |                   |                                |            |                          |                  |                       |      |
| EM2121371-011   | Anonymous         | EK059G: Nitrite + Nitrate as N | ----       | 0.5 mg/L                 | 99.5             | 70.0                  | 130  |
| EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 3997899) |                   |                                |            |                          |                  |                       |      |
| EM2121437-005   | Mark Point NR     | EK059G: Nitrite + Nitrate as N | ----       | 0.5 mg/L                 | 92.8             | 70.0                  | 130  |





Sub-Matrix: **WATER**

|   |                                     |                                      |            | Matrix Spike (MS) Report |                  |                       |      |
|---|-------------------------------------|--------------------------------------|------------|--------------------------|------------------|-----------------------|------|
|   |                                     |                                      |            | Spike                    | SpikeRecovery(%) | Acceptable Limits (%) |      |
| Laboratory sample ID  | Sample ID                           | Method: Compound                     | CAS Number | Concentration            | MS               | Low                   | High |
| <b>EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 3995086)</b>  |                                     |                                      |            |                          |                  |                       |      |
| EM2121437-002   | 3.2km south of Salt Creek (land) NR | EK061G: Total Kjeldahl Nitrogen as N | ----       | 5 mg/L                   | 91.7             | 70.0                  | 130  |
| <b>EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 3995089)</b>  |                                     |                                      |            |                          |                  |                       |      |
| EM2121437-022   | Villa de Yumpa NR                   | EK061G: Total Kjeldahl Nitrogen as N | ----       | 5 mg/L                   | 73.0             | 70.0                  | 130  |
| <b>EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 3995087)</b>    |                                     |                                      |            |                          |                  |                       |      |
| EM2121437-002   | 3.2km south of Salt Creek (land) NR | EK067G: Total Phosphorus as P        | ----       | 1 mg/L                   | 74.9             | 70.0                  | 130  |
| <b>EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 3995088)</b>    |                                     |                                      |            |                          |                  |                       |      |
| EM2121437-022   | Villa de Yumpa NR                   | EK067G: Total Phosphorus as P        | ----       | 1 mg/L                   | # Not Determined | 70.0                  | 130  |
| <b>EK071G: Reactive Phosphorus as P by discrete analyser (QCLot: 3983516)</b> |                                     |                                      |            |                          |                  |                       |      |
| EM2121437-003   | Bonneys                             | EK071G: Reactive Phosphorus as P     | 14265-44-2 | 0.5 mg/L                 | 110              | 79.0                  | 123  |
| <b>EK071G: Reactive Phosphorus as P by discrete analyser (QCLot: 3984990)</b> |                                     |                                      |            |                          |                  |                       |      |
| EM2121437-005   | Mark Point NR                       | EK071G: Reactive Phosphorus as P     | 14265-44-2 | 0.5 mg/L                 | 111              | 79.0                  | 123  |
| <b>EP002: Dissolved Organic Carbon (DOC) (QCLot: 3984189)</b>                 |                                     |                                      |            |                          |                  |                       |      |
| EM2121437-003   | Bonneys                             | EP002: Dissolved Organic Carbon      | ----       | 100 mg/L                 | 106              | 75.0                  | 117  |
| <b>EP002: Dissolved Organic Carbon (DOC) (QCLot: 3998818)</b>                 |                                     |                                      |            |                          |                  |                       |      |
| EM2121437-005   | Mark Point NR                       | EP002: Dissolved Organic Carbon      | ----       | 100 mg/L                 | 106              | 75.0                  | 117  |
| <b>EP005: Total Organic Carbon (TOC) (QCLot: 3984190)</b>                     |                                     |                                      |            |                          |                  |                       |      |
| EM2121437-003   | Bonneys                             | EP005: Total Organic Carbon          | ----       | 100 mg/L                 | 105              | 76.6                  | 125  |
| <b>EP005: Total Organic Carbon (TOC) (QCLot: 3998819)</b>                     |                                     |                                      |            |                          |                  |                       |      |
| EM2121437-005   | Mark Point NR                       | EP005: Total Organic Carbon          | ----       | 100 mg/L                 | 103              | 76.6                  | 125  |