



Photograph 5
Date: 04/08/2019

Close up of soil sample 22.



Photograph 6
Date: 04/08/2019

Soil bed northeast of Gambarri centre with soil sample 24 and QC01.



Photograph 7
Date: 04/08/2019

Close up of soil sample 24 and QC01.

ATTACHMENT B

Sample Receipt Advice, COC Documentation and Laboratory Reports

SAMPLE RECEIPT ADVICE

SE196136

CLIENT DETAILS

Contact [REDACTED]
Client Robson Environmental Pty Ltd
Address 140 Gladstone Street, FYSHWICK
PO Box 112, FYSHWICK
ACT 2609

Telephone (02) 6239 5656
Facsimile (02) 6239 5669
Email [REDACTED]

Project T-01035 SA
Order Number T-01035
Samples 5

LABORATORY DETAILS

Manager [REDACTED]
Laboratory [REDACTED]
Address [REDACTED]

Telephone [REDACTED]
Facsimile [REDACTED]
Email [REDACTED]

Samples Received Tue 6/8/2019
Report Due Wed 7/8/2019
[REDACTED] SE196136

SUBMISSION DETAILS

This is to confirm that 5 samples were received on Tuesday 6/8/2019. Results are expected to be ready by COB Wednesday 7/8/2019. Please quote [REDACTED] reference SE196136 when making enquiries. Refer below for details relating to sample integrity upon receipt.

| | | | |
|--|------------|------------------------------------|-----------------|
| Samples clearly labelled | Yes | Complete documentation received | Yes |
| Sample container provided | [REDACTED] | Sample cooling method | Ice Bricks |
| Samples received in correct containers | Yes | Sample counts by matrix | 4 Soil, 1 Water |
| Date documentation received | 6/8/2019 | Type of documentation received | COC |
| Samples received in good order | Yes | Samples received without headspace | Yes |
| Sample temperature upon receipt | 7.2°C | Sufficient sample for analysis | Yes |
| Turnaround time requested | Next Day | | |

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

COMMENTS

SS22 received broken and unsalvageable.

SAMPLE RECEIPT ADVICE

SE196136

CLIENT DETAILS

Client Robson Environmental Pty Ltd

Project T-01035 SA

SUMMARY OF ANALYSIS

| No. | Sample ID | Moisture Content | Total Recoverable Elements in Soil/Waste | Trace Metals (Dissolved) in Water by ICPMS |
|-----|--------------|------------------|--|--|
| 001 | SS21 0.0-0.2 | 1 | 1 | - |
| 002 | SS23 0.0-0.2 | 1 | 1 | - |
| 003 | SS24 0.0-0.2 | 1 | 1 | - |
| 004 | QC1 0.0-0.2 | 1 | 1 | - |
| 005 | RO1 0.0-0.2 | - | - | 1 |

The above table represents interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details. Testing as per this table shall commence immediately unless the client intervenes with a correction.

DOCUMENT 45

Robson
ENVIRONMENTAL

Occupational Hygiene
Health Safety &
Environmental Consulting

CHAIN OF CUSTODY
FORM

Quote No. : LVM1DX

Job No. : T-01035

From: Robson Environmental Pty Ltd
PO Box 112 Fyshwick ACT 2609
140 Gladstone Street
Fyshwick ACT 2609
ABN: 55 008 660 900

Contact:

Phone:

Mobile:

Fax:

Email:

(02) 6239 5669

results@robsonenviro.com.au

Client Information:

ACT PG

Site Address:

YARRALUMLA PS

Sampled by:

Job Name:

ESDAT Files
NEPM Report

YES
YES

Required Turnaround Time:

24hr

☒

48hr

☐

5 days

☐

36hr

☐

72hr

☐

Analysis Required

LEAD (Pb)

Comments

Lab ID

Sample ID

Sample Depth

Date Sampled

Sample
Location

No. of Sample Jars

Sample
Type

Sample Preservation
(Ice, Acid, Ambient)

1

SS 21

0.0-0.2

04/08/19

1

SOIL

AMBIENT ICE

X

SS 22

X

2

SS 23

X

3

SS 24

X

4

GC 1

X

5

RO 1

X

WATER

X

Relinquished by:

Date:

2 pm

Time: 2pm

Received by:

Time:

06/08/19 @ 11 ~

Relinquished by:

Date:

Time:

Received by:

Time:

Relinquished by:

Date:

Time:

Received by:

Time:

CL6: TRH, BTEX & Pb

CL15: TRH, BTEX, PAH, Phenols, OC, OP, PCB & 8 Heavy Metals

Mirco 2: E.Coli, Faecal Coliforms, Total Coliforms

CL2: 8 Heavy metals (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg)

RS3: TRH, BTEX, PAH, Phenols, OC, PCB & 8 Heavy Metals

CL4: TRH C₆-C₉ and BTEX

24 of 54

ANALYTICAL REPORT



Accreditation No. 2562

CLIENT DETAILS

Contact [REDACTED]
Client **Robson Environmental Pty Ltd**
Address **140 Gladstone Street, FYSHWICK
PO Box 112, FYSHWICK
ACT 2609**

Telephone [REDACTED]
Facsimile [REDACTED]
Email [REDACTED]

Project **T-01035 SA**
Order Number **T-01035**
Samples **5**

LABORATORY DETAILS

Manager [REDACTED]
Laboratory [REDACTED]
Address [REDACTED]

Telephone [REDACTED]
Facsimile [REDACTED]
Email [REDACTED]

[REDACTED] **SE196136 R0**
Date Received **6/8/2019**
Date Reported **7/8/2019**

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

SIGNATORIES





ANALYTICAL RESULTS

SE196136 R0

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 6/8/2019

| | | | SS21 0.0-0.2 | SS23 0.0-0.2 | SS24 0.0-0.2 | QC1 0.0-0.2 |
|-----------|-------|-----|--------------|--------------|--------------|--------------|
| | | | SOIL | SOIL | SOIL | SOIL |
| | | | - | - | - | - |
| | | | 4/8/2019 | 4/8/2019 | 4/8/2019 | 4/8/2019 |
| PARAMETER | UOM | LOR | SE196136.001 | SE196136.002 | SE196136.003 | SE196136.004 |
| Lead, Pb | mg/kg | 1 | 37 | 41 | 15 | 17 |

ANALYTICAL RESULTS

SE196136 R0

Moisture Content [AN002] Tested: 6/8/2019

| | | | SS21 0.0-0.2 | SS23 0.0-0.2 | SS24 0.0-0.2 | QC1 0.0-0.2 |
|------------|------|-----|--------------|--------------|--------------|--------------|
| | | | SOIL | SOIL | SOIL | SOIL |
| | | | - | - | - | - |
| | | | 4/8/2019 | 4/8/2019 | 4/8/2019 | 4/8/2019 |
| PARAMETER | UOM | LOR | SE196136.001 | SE196136.002 | SE196136.003 | SE196136.004 |
| % Moisture | %w/w | 0.5 | 7.0 | 5.8 | 12.8 | 11.4 |

ANALYTICAL RESULTS

SE196136 R0

Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 7/8/2019

| | | | |
|-----------|------|-----|--------------|
| | | | RO1 0.0-0.2 |
| | | | WATER |
| | | | - |
| | | | 4/8/2019 |
| | | | SE196136.005 |
| PARAMETER | UOM | LOR | |
| Lead, Pb | µg/L | 1 | <1 |

METHOD SUMMARY

SE196136 R0

METHOD

METHODOLOGY SUMMARY

| | |
|--------------------|--|
| AN002 | The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water. |
| AN020 | Unpreserved water sample is filtered through a 0.45µm membrane filter and acidified with nitric acid similar to APHA3030B. |
| AN040/AN320 | A portion of sample is digested with nitric acid to decompose organic matter and hydrochloric acid to complete the digestion of metals. The digest is then analysed by ICP OES with metals results reported on the dried sample basis. Based on USEPA method 200.8 and 6010C. |
| AN040 | A portion of sample is digested with Nitric acid to decompose organic matter and Hydrochloric acid to complete the digestion of metals and then filtered for analysis by ASS or ICP as per USEPA Method 200.8. |
| AN318 | Determination of elements at trace level in waters by ICP-MS technique, in accordance with USEPA 6020A. |

FOOTNOTES

| | | | | | |
|----|--|-----|-----------------------------------|-----|------------------------------------|
| * | NATA accreditation does not cover the performance of this service. | - | Not analysed. | UOM | Unit of Measure. |
| ** | Indicative data, theoretical holding time exceeded. | NVL | Not validated. | LOR | Limit of Reporting. |
| | | IS | Insufficient sample for analysis. | ↑↓ | Raised/lowered Limit of Reporting. |
| | | LNR | Sample listed, but not received. | | |

Unless it is reported that sampling has been performed by [REDACTED] the samples have been analysed as received. Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the "Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.

Note that in terms of units of radioactivity:

- 1 Bq is equivalent to 27 pCi
- 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the [REDACTED] QAQC plan and may be provided on request or alternatively can be found here: [REDACTED]

This document is issued by the Company under its General Conditions of Service accessible at [REDACTED]. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client only. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

This report must not be reproduced, except in full.

STATEMENT OF QA/QC PERFORMANCE

SE196136 R0

CLIENT DETAILS

Contact [REDACTED]
 Client Robson Environmental Pty Ltd
 Address 140 Gladstone Street, FYSHWICK
 PO Box 112, FYSHWICK
 ACT 2609

Telephone [REDACTED]
 Facsimile [REDACTED]
 Email [REDACTED]

Project **T-01035 SA**
 Order Number **T-01035**
 Samples 5

LABORATORY DETAILS

Manager [REDACTED]
 Laboratory [REDACTED]
 Address [REDACTED]

Telephone [REDACTED]
 Facsimile [REDACTED]
 Email [REDACTED]

[REDACTED] **SE196136 R0**
 Date Received 06 Aug 2019
 Date Reported 07 Aug 2019

COMMENTS

All the laboratory data for each environmental matrix was compared to [REDACTED] stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.
 This QA/QC Statement must be read in conjunction with the referenced Analytical Report.
 The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met (within the [REDACTED] laboratory).

SAMPLE SUMMARY

| | | | |
|--|------------|------------------------------------|-----------------|
| Samples clearly labelled | Yes | Complete documentation received | Yes |
| Sample container provider | [REDACTED] | Sample cooling method | Ice Bricks |
| Samples received in correct containers | Yes | Sample counts by matrix | 4 Soil, 1 Water |
| Date documentation received | 6/8/2019 | Type of documentation received | COC |
| Samples received in good order | Yes | Samples received without headspace | Yes |
| Sample temperature upon receipt | 7.2°C | Sufficient sample for analysis | Yes |
| Turnaround time requested | Next Day | | |

HOLDING TIME SUMMARY

SE196136 R0

holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Moisture Content

Method: ME-(AU)-[ENV]AN002

| Sample Name | Sample No. | QC Ref | Sampled | Received | Extraction Due | Extracted | Analysis Due | Analysed |
|--------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| SS21 0.0-0.2 | SE196136.001 | LB180316 | 04 Aug 2019 | 06 Aug 2019 | 18 Aug 2019 | 06 Aug 2019 | 11 Aug 2019 | 07 Aug 2019 |
| SS23 0.0-0.2 | SE196136.002 | LB180316 | 04 Aug 2019 | 06 Aug 2019 | 18 Aug 2019 | 06 Aug 2019 | 11 Aug 2019 | 07 Aug 2019 |
| SS24 0.0-0.2 | SE196136.003 | LB180316 | 04 Aug 2019 | 06 Aug 2019 | 18 Aug 2019 | 06 Aug 2019 | 11 Aug 2019 | 07 Aug 2019 |
| QC1 0.0-0.2 | SE196136.004 | LB180316 | 04 Aug 2019 | 06 Aug 2019 | 18 Aug 2019 | 06 Aug 2019 | 11 Aug 2019 | 07 Aug 2019 |

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

| Sample Name | Sample No. | QC Ref | Sampled | Received | Extraction Due | Extracted | Analysis Due | Analysed |
|--------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| SS21 0.0-0.2 | SE196136.001 | LB180317 | 04 Aug 2019 | 06 Aug 2019 | 31 Jan 2020 | 06 Aug 2019 | 31 Jan 2020 | 07 Aug 2019 |
| SS23 0.0-0.2 | SE196136.002 | LB180317 | 04 Aug 2019 | 06 Aug 2019 | 31 Jan 2020 | 06 Aug 2019 | 31 Jan 2020 | 07 Aug 2019 |
| SS24 0.0-0.2 | SE196136.003 | LB180317 | 04 Aug 2019 | 06 Aug 2019 | 31 Jan 2020 | 06 Aug 2019 | 31 Jan 2020 | 07 Aug 2019 |
| QC1 0.0-0.2 | SE196136.004 | LB180317 | 04 Aug 2019 | 06 Aug 2019 | 31 Jan 2020 | 06 Aug 2019 | 31 Jan 2020 | 07 Aug 2019 |

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

| Sample Name | Sample No. | QC Ref | Sampled | Received | Extraction Due | Extracted | Analysis Due | Analysed |
|-------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| RO1 0.0-0.2 | SE196136.005 | LB180343 | 04 Aug 2019 | 06 Aug 2019 | 31 Jan 2020 | 07 Aug 2019 | 31 Jan 2020 | 07 Aug 2019 |

SURROGATES

SE196136 R0

Surrogate results are evaluated against upper and lower limit criteria established in the [REDACTED] QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No surrogates were required for this job.

METHOD BLANKS

SE196136 R0

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: ME-(AU)-[ENV]AN040/AN320

| Sample Number | Parameter | Units | LOR | Result |
|---------------|-----------|-------|-----|---------------------|
| LB180317.001 | Lead, Pb | mg/kg | 1 | -0.7208333333333333 |

Trace Metals (Dissolved) in Water by ICPMS Method: ME-(AU)-[ENV]AN318

| Sample Number | Parameter | Units | LOR | Result |
|---------------|-----------|-------|-----|--------|
| LB180343.001 | Lead, Pb | µg/L | 1 | <1 |

DUPLICATES

SE196136 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

| Trace Metals (Dissolved) in Water by ICPMS | | | | | Method: ME-(AU)-(ENV)AN318 | | | |
|--|--------------|-----------|-------|-----|----------------------------|-----------|------------|-------|
| Original | Duplicate | Parameter | Units | LOR | Original | Duplicate | Criteria % | RPD % |
| SE196136.005 | LB180343.004 | Lead, Pb | µg/L | 1 | <1 | <1 | 200 | 0 |

LABORATORY CONTROL SAMPLES

SE196136 R0

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

| Sample Number | Parameter | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|-----------|-------|-----|--------|----------|------------|------------|
| LB180317.002 | Lead, Pb | mg/kg | 1 | NA | 107.87 | 79 - 120 | 82 |

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

| Sample Number | Parameter | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|-----------|-------|-----|--------|----------|------------|------------|
| LB180343.002 | Lead, Pb | µg/L | 1 | 19 | 20 | 80 - 120 | 94 |

MATRIX SPIKES

SE196136 R0

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the [REDACTED] QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spikes were required for this job.

MATRIX SPIKE DUPLICATES

SE196136 R0

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spike duplicates were required for this job.

FOOTNOTES

SE196136 R0

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the [REDACTED] QA/QC plan and may be provided on request or alternatively can be found here :
[REDACTED]

- * NATA accreditation does not cover the performance of this service .
 - ** Indicative data, theoretical holding time exceeded.
 - Sample not analysed for this analyte.
 - IS Insufficient sample for analysis.
 - LNR Sample listed, but not received.
 - LOR Limit of reporting.
 - QFH QC result is above the upper tolerance.
 - QFL QC result is below the lower tolerance.
-
- ① At least 2 of 3 surrogates are within acceptance criteria.
 - ② RPD failed acceptance criteria due to sample heterogeneity.
 - ③ Results less than 5 times LOR preclude acceptance criteria for RPD.
 - ④ Recovery failed acceptance criteria due to matrix interference.
 - ⑤ Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
 - ⑥ LOR was raised due to sample matrix interference.
 - ⑦ LOR was raised due to dilution of significantly high concentration of analyte in sample.
 - ⑧ Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
 - ⑨ Recovery failed acceptance criteria due to sample heterogeneity.
 - ⑩ LOR was raised due to high conductivity of the sample (required dilution).
 - † Refer to Analytical Report comments for further information.

This document is issued by the Company under its General Conditions of Service accessible at [REDACTED]
Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client only. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

This test report shall not be reproduced, except in full.

SAMPLE RECEIPT ADVICE

SE195871

CLIENT DETAILS

Contact [REDACTED]
Client Robson Environmental Pty Ltd
Address 140 Gladstone Street, FYSHWICK
PO Box 112, FYSHWICK
ACT 2609

Telephone (02) 6239 5656
Facsimile (02) 6239 5669
Email [REDACTED]

Project T01035 Gambarri Centre
Order Number T01035
Samples 3

LABORATORY DETAILS

Manager [REDACTED]
Laboratory [REDACTED]
Address [REDACTED]

Telephone [REDACTED]
Facsimile [REDACTED]
Email [REDACTED]

Samples Received Tue 30/7/2019
Report Due Wed 31/7/2019
SE195871

SUBMISSION DETAILS

This is to confirm that 3 samples were received on Tuesday 30/7/2019. Results are expected to be ready by COB Wednesday 31/7/2019.
Please quote [REDACTED] reference SE195871 when making enquiries. Refer below for details relating to sample integrity upon receipt.

| | | | |
|--|------------|------------------------------------|------------|
| Samples clearly labelled | Yes | Complete documentation received | Yes |
| Sample container provided | [REDACTED] | Sample cooling method | Ice Bricks |
| Samples received in correct containers | Yes | Sample counts by matrix | 3 Soil |
| Date documentation received | 30/7/2019 | Type of documentation received | COC |
| Samples received in good order | Yes | Samples received without headspace | No |
| Sample temperature upon receipt | 11.3°C | Sufficient sample for analysis | Yes |
| Turnaround time requested | Next Day | | |

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

COMMENTS

This document is issued by the Company under its General Conditions of Service accessible at [REDACTED]
Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

SAMPLE RECEIPT ADVICE

SE195871

CLIENT DETAILS

Client Robson Environmental Pty Ltd

Project T01035 Gambarri Centre

SUMMARY OF ANALYSIS

| No. | Sample ID | Moisture Content | Total Recoverable Elements in Soil/Waste |
|-----|-------------|------------------|--|
| 001 | SS18 <200mm | 1 | 1 |
| 002 | SS19 <200mm | 1 | 1 |
| 003 | SS20 <200mm | 1 | 1 |

The above table represents interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details. Testing as per this table shall commence immediately unless the client intervenes with a correction.

41 of 54

ANALYTICAL REPORT



Accreditation No [REDACTED]

CLIENT DETAILS

Contact [REDACTED]
Client **Robson Environmental Pty Ltd**
Address **140 Gladstone Street, FYSHWICK**
PO Box 112, FYSHWICK
ACT 2609

Telephone **(02) 6239 5656**
Facsimile **(02) 6239 5669**
Email [REDACTED]

Project **T01035 Gambarri Centre**
Order Number **T01035**
Samples **3**

LABORATORY DETAILS

Manager [REDACTED]
Laboratory [REDACTED]
Address [REDACTED]

Telephone [REDACTED]
Facsimile [REDACTED]
Email [REDACTED]

[REDACTED] **SE195871 R0**
Date Received **30/7/2019**
Date Reported **31/7/2019**

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

SIGNATORIES



ANALYTICAL RESULTS

SE195871 R0

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 30/7/2019

| | | | SS18 <200mm | SS19 <200mm | SS20 <200mm |
|-----------|-------|-----|--------------|--------------|--------------|
| | | | SOIL | SOIL | SOIL |
| | | | - | - | - |
| | | | 28/7/2019 | 28/7/2019 | 28/7/2019 |
| PARAMETER | UOM | LOR | SE195871.001 | SE195871.002 | SE195871.003 |
| Lead, Pb | mg/kg | 1 | 61 | 25 | 130 |

ANALYTICAL RESULTS

SE195871 R0

Moisture Content [AN002] Tested: 30/7/2019

| | | | SS18 <200mm | SS19 <200mm | SS20 <200mm |
|------------|------|-----|--------------|--------------|--------------|
| | | | SOIL | SOIL | SOIL |
| | | | - | - | - |
| | | | 28/7/2019 | 28/7/2019 | 28/7/2019 |
| PARAMETER | UOM | LOR | SE195871.001 | SE195871.002 | SE195871.003 |
| % Moisture | %w/w | 0.5 | 21.1 | 5.6 | 17.6 |

METHOD SUMMARY

SE195871 R0

METHOD

METHODOLOGY SUMMARY

AN002

The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.

AN040/AN320

A portion of sample is digested with nitric acid to decompose organic matter and hydrochloric acid to complete the digestion of metals. The digest is then analysed by ICP OES with metals results reported on the dried sample basis. Based on USEPA method 200.8 and 6010C.

AN040

A portion of sample is digested with Nitric acid to decompose organic matter and Hydrochloric acid to complete the digestion of metals and then filtered for analysis by ASS or ICP as per USEPA Method 200.8.

FOOTNOTES

| | | | | | |
|----|--|-----|-----------------------------------|-----|------------------------------------|
| * | NATA accreditation does not cover the performance of this service. | - | Not analysed. | UOM | Unit of Measure. |
| | | NVL | Not validated. | LOR | Limit of Reporting. |
| ** | Indicative data, theoretical holding time exceeded. | IS | Insufficient sample for analysis. | ↑↓ | Raised/lowered Limit of Reporting. |
| | | LNR | Sample listed, but not received. | | |

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.
Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be $1.6 / 2$ (0.8 mg/kg). Where only 2 analytes are being summed, the "Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the \pm sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.

Note that in terms of units of radioactivity:

- 1 Bq is equivalent to 27 pCi
- 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the [REDACTED] QAQC plan and may be provided on request or alternatively can be found here [REDACTED]

This document is issued by the Company under its General Conditions of Service accessible at [REDACTED]
Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client only. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

This report must not be reproduced, except in full.

STATEMENT OF QA/QC
PERFORMANCE

SE195871 R0

| CLIENT DETAILS | | LABORATORY DETAILS | |
|----------------|--|--------------------|-------------|
| Contact | | Manager | |
| Client | Robson Environmental Pty Ltd | Laboratory | |
| Address | 140 Gladstone Street, FYSHWICK PO Box 112, FYSHWICK ACT 2609 | Address | |
| Telephone | (02) 6239 5656 | Telephone | |
| Facsimile | (02) 6239 5669 | Facsimile | |
| Email | | Email | |
| Project | T01035 Gambarri Centre | | SE195871 R0 |
| Order Number | T01035 | Date Received | 30 Jul 2019 |
| Samples | 3 | Date Reported | 31 Jul 2019 |

COMMENTS

All the laboratory data for each environmental matrix was compared to stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.
This QA/QC Statement must be read in conjunction with the referenced Analytical Report.
The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met (within the laboratory).

SAMPLE SUMMARY

HOLDING TIME SUMMARY

SE195871 R0

holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Moisture Content

Method: ME-(AU)-[ENV]AN002

| Sample Name | Sample No. | QC Ref | Sampled | Received | Extraction Due | Extracted | Analysis Due | Analysed |
|-------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| SS18 <200mm | SE195871.001 | LB179720 | 28 Jul 2019 | 30 Jul 2019 | 11 Aug 2019 | 30 Jul 2019 | 04 Aug 2019 | 31 Jul 2019 |
| SS19 <200mm | SE195871.002 | LB179720 | 28 Jul 2019 | 30 Jul 2019 | 11 Aug 2019 | 30 Jul 2019 | 04 Aug 2019 | 31 Jul 2019 |
| SS20 <200mm | SE195871.003 | LB179720 | 28 Jul 2019 | 30 Jul 2019 | 11 Aug 2019 | 30 Jul 2019 | 04 Aug 2019 | 31 Jul 2019 |

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

| Sample Name | Sample No. | QC Ref | Sampled | Received | Extraction Due | Extracted | Analysis Due | Analysed |
|-------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| SS18 <200mm | SE195871.001 | LB179719 | 28 Jul 2019 | 30 Jul 2019 | 24 Jan 2020 | 30 Jul 2019 | 24 Jan 2020 | 31 Jul 2019 |
| SS19 <200mm | SE195871.002 | LB179719 | 28 Jul 2019 | 30 Jul 2019 | 24 Jan 2020 | 30 Jul 2019 | 24 Jan 2020 | 31 Jul 2019 |
| SS20 <200mm | SE195871.003 | LB179719 | 28 Jul 2019 | 30 Jul 2019 | 24 Jan 2020 | 30 Jul 2019 | 24 Jan 2020 | 31 Jul 2019 |

SURROGATES

SE195871 R0

Surrogate results are evaluated against upper and lower limit criteria established in the [redacted] QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No surrogates were required for this job.



METHOD BLANKS

SE195871 R0

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

| Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES | | | Method: ME-(AU)-(ENV)AN040/AN320 | |
|---|-----------|-------|----------------------------------|---------|
| Sample Number | Parameter | Units | LOR | Result |
| LB179719.001 | Lead, Pb | mg/kg | 1 | -0.6625 |

DUPLICATES

SE195871 R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No duplicates were required for this job.

LABORATORY CONTROL SAMPLES

SE195871 R0

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the [redacted] QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

| Sample Number | Parameter | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|-----------|-------|-----|--------|----------|------------|------------|
| LB179719.002 | Lead, Pb | mg/kg | 1 | NA | 107.87 | 79 - 120 | 86 |

MATRIX SPIKES

SE195871 R0

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the [REDACTED] QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spikes were required for this job.

MATRIX SPIKE DUPLICATES

SE195871 R0

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.


No matrix spike duplicates were required for this job.

FOOTNOTES


SE195871 R0

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here : 

- * NATA accreditation does not cover the performance of this service .
 - ** Indicative data, theoretical holding time exceeded.
 - Sample not analysed for this analyte.
 - IS Insufficient sample for analysis.
 - LNR Sample listed, but not received.
 - LOR Limit of reporting.
 - QFH QC result is above the upper tolerance.
 - QFL QC result is below the lower tolerance.
-
- ① At least 2 of 3 surrogates are within acceptance criteria.
 - ② RPD failed acceptance criteria due to sample heterogeneity.
 - ③ Results less than 5 times LOR preclude acceptance criteria for RPD.
 - ④ Recovery failed acceptance criteria due to matrix interference.
 - ⑤ Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
 - ⑥ LOR was raised due to sample matrix interference.
 - ⑦ LOR was raised due to dilution of significantly high concentration of analyte in sample.
 - ⑧ Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
 - ⑨ Recovery failed acceptance criteria due to sample heterogeneity.
 - ⑩ LOR was raised due to high conductivity of the sample (required dilution).
 - † Refer to Analytical Report comments for further information.

This document is issued by the Company under its General Conditions of Service accessible at . Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client only. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

This test report shall not be reproduced, except in full.