# St George Illawarra Dragons Community & High Performance Centre

## Additional Site Investigation Report

St George Illawarra Rugby League Football Club

**Reference: 754-SYDGE295047-AE**

30 June 2022

# ST GEORGE ILLAWARRA DRAGONS COMMUNITY & HIGH-PERFORMANCE CENTRE

Additional Site Investigation Report

**Report reference number: 754-SYDGE295047-AE**

24 June 2022

PREPARED FOR

**St George Illawarra Rugby League Football Club**

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## QUALITY INFORMATION

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*Cover page image: Populous Architects (2021), St George Illawarra Dragons CPHC, Artist Impression – View from North*

# EXECUTIVE SUMMARY[1]

St George Illawarra Rugby League Football Club Pty Ltd (the Dragons) propose to construct a Community and High-Performance Centre (CHPC), in partnership with the University of Wollongong (UOW). The proposed CHPC will be situated on a 7-hectare parcel of land located in the northern portion of UOW's Innovation Campus, at 7-9 Squires Way, Fairy Meadow NSW 2519 (the 'Property'). The location of the Site is shown in Figure 1, Appendix A.

Tetra Tech Coffey Pty Ltd (Coffey) has previously conducted a geotechnical investigation, contamination investigation and a hazardous materials assessment at the Site.

Based on the findings of the previous contamination investigation, Coffey recommended that additional ground gas monitoring be completed. Further conversations between Coffey and the Client's team led to the decision to complete a further investigation to increase the confidence in the in-situ waste classification and acid sulfate soils assessment for soils in the north-western part of the Property (i.e. the 'Site') that will be excavated to a nominal depth of 3 m below ground surface (mbgs). The extent of these excavations and boundary of the 'Site' is illustrated in Figure 2, Appendix B. This report presents the findings of the additional phase of investigation to address these data gaps.

Based on the data obtained from the additional investigation, Coffey concludes that:

- The soils within the Site to a depth of 3mbgs is classified as General Solid Waste for disposal off-site to a licensed landfill.
- The acid sulfate soil analysis indicates that natural soils within the Site comprise Potential Acid Sulfate Soils (PASS). The presence of PASS precludes the classification of natural soil as Virgin Excavated Natural Material, or Excavated Natural Material (ENM).
- Natural soil excavated within the Site requires neutralisation treatment via the addition of lime to enable disposal of these materials to landfill, or reuse elsewhere on site. Available laboratory data indicates neutralisation liming rates between 1 and 15 kg $CaCO_3$/t will likely be required.
- The laboratory data exceeds the Action Criteria set out within the National Acid Sulfate Soil Guidance indicating an ASS Management Plan is required.
- Subsurface gas monitoring could not be conducted utilising existing gas wells BH1 and BH2 because they had been either damaged or completely submerged under surface water.

This report should be read in conjunction with the attached "Important information about your Tetra Tech Coffey Environmental Report".

[1] This executive summary must be read in the context of the full report and the attached limitations.

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# APPENDICES

# 1. INTRODUCTION

St George Illawarra Rugby League Football Club Pty Ltd (the Dragons) propose to construct a Community and High-Performance Centre (CHPC), in partnership with the University of Wollongong (UOW). The proposed CHPC will be situated on a 7-hectare parcel of land located in the northern portion of UOW's Innovation Campus, at 7-9 Squires Way, Fairy Meadow NSW 2519 (the 'Property'). The location of the Site is shown in Figure 1, Appendix A.

Tetra Tech Coffey Pty Ltd (Coffey) has previously conducted geotechnical investigation, contamination investigation and a hazardous materials assessment in relation to the Property. The findings of these previous studies are presented in the following reports:

- Coffey (2022) St George Illawarra Dragons Community & High Performance Centre, Geotechnical Investigation Report (Reference: 754-SYDGE295046 AB).
- Coffey (2022) St George Illawarra Dragons Community & High Performance Centre, Detailed Site Investigation Report (Reference: 754-SYDGE295047-AC) (the 'DSI').
- Coffey (2022) St George Illawarra Rugby League Football Club Asbestos and Hazardous Materials Pre-Demolition Assessment (Reference: 754-SYDGE295047-AD).

As part of the contamination investigation, Coffey recommended that additional ground gas monitoring be completed to assess the requirement for gas mitigation measures within CHPC structures. Further conversations between Coffey and the Client team led to the decision to complete an additional investigation to increase the confidence in the in-situ waste classification and acid sulfate soils (ASS) assessment of soil that will be excavated to a nominal depth of 3 m below ground surface (mbgs). The extent of these excavations and boundary of the 'Site' is illustrated in Figure 2, Appendix B.

Coffey has carried out an additional investigation to support the contamination assessment. This is to close out the identified data gaps pertinent to the in-situ waste classification and acid sulfate soils, as well as subsurface gas. This report presents the works completed for the additional contamination assessment.

## 1.1 OBJECTIVES

The objectives of this additional contamination investigation were to:

- Provide an in-situ waste classification of the top 3 metres of soil material to be excavated within the Site.
- Confirm the presence of ASS within the Site and determine the need for treatment in excavating surplus soil from the Site.
- Assess the subsurface gas risk at the Site.

## 1.2 SCOPE OF WORK

Coffey carried out the following scope of works:

- Field investigations across the Site, comprising:
  - Drilling 11 boreholes to a maximum depth of 3 mbgs.
  - Collection of soil samples from the surface at regular intervals for laboratory analysis.

- Submission of soil samples to laboratories who hold National Association of Testing Authorities (NATA) accredited analytical methods for selected chemicals and parameters. The analysis included:
  - Heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc).
  - Total recoverable hydrocarbons (TRH).
  - Polycyclic aromatic hydrocarbons (PAH).
  - Benzene, toluene, ethylbenzene and total xylenes (BTEX).
  - Organochlorine pesticides (OCP).
  - Organophosphorus pesticides (OPP).
  - Polychlorinated biphenyls (PCB).
  - ASS Screening ($pH_F$ / $pH_{FOX}$) and Suspension Peroxide Oxidation Combined Acidity and Sulphur (SPOCAS).
- Preparation of this additional investigation report presenting the findings of the investigation.

# 2. SITE INFORMATION

## 2.1 SITE IDENTIFICATION

The Site is located at the northern end of the University of Wollongong Innovation Campus at 7-9 Squires Way, Fairy Meadow NSW. Table 2.1 provides a summary of the site identification details.

**Table 2.1 – Site identification summary**

| Item | Description |
|---|---|
| **Street Address** | 7-9 Squires Way, Fairy Meadow NSW 2519 |
| **Title** | Part of Lot 2, deposited plan (DP) 1172135 |
| **Site Area** | The focus of this investigation was approximately 1.75 ha on the north-western portion of Lot 2, DP1172135. |

## 2.2 ENVIRONMENTAL SETTING

A summary of the environmental setting details is presented in Table 2.2.

**Table 2.2 – Environmental Setting**

| | |
|---|---|
| **Topography** | The Site is generally flat, with ground surface elevations varying from 3-4 mAHD across the Site. |
| **Hydrology** | The Site is located between 300 m to 400 m west of Puckeys Beach and the Tasman Sea. The undeveloped land between the beach and Squires Way (Puckeys Estate Reserve) contains a channelised creek (Towradgi Arm, approximately 180 m east of the Site) and small tributary streams, the closest being 70m to the east of the Site.<br><br>Cabbage Tree Creek is situated approximately 150 m west of the south-western corner of the Site. Towradgi Arm and Cabbage Tree Creek both drain in a southerly direction to Fairy Creek (900 m south of the Site), which discharges into the Tasman Sea approximately 1.25 km south-southeast of the Site. These three streams are anticipated to be tidally influenced.<br><br>Water logging was observed on-site due to the flat nature of the land surface and heavy clay soils.<br><br>Surface runoff in carparks and access roads is expected to flow into stormwater drainage systems and gradually into Fairy Creek. |
| **Soil Landscape and Geology** | A review of the Office of Environment and Heritage, Electronic Soil Profiling Maps (eSPADE) V2.1 indicates that the Site is in an area defined as disturbed terrain.<br><br>The Geological Survey of NSW, 1:50,000 Wollongong Geological Map indicates that the Site locality is underlain by Quaternary alluvium comprising sand, silt, gravel, and clay. The Quaternary alluvium is underlain by residual |

| | |
|---|---|
| | soils at a depth of c.12 mbgs which comprises sandy clay of medium to high plasticity. The residual soil is underlain by sandstone and siltstone, likely of the Pheasants Nest formation. |
| **Groundwater** | During previous investigations, groundwater was encountered to depths of 0.3 mbgs to 5.5 mbgs (Coffey (2022) Ref: 754-SYDGE295047-AC). The groundwater flow direction was calculated to be predominantly towards the east to south-east. |
| **Acid Sulfate Soils** | A review of the Office of Environment and Heritage, Electronic Soil Profiling Maps (eSPADE) V2.1 indicates the Site to comprise 'disturbed terrain' where investigations are recommended to confirm the presence of ASS. This resource indicates a high probability of ASS occurring in the adjacent Puckeys Estate Reserve. |

## 2.3 SUMMARY OF PREVIOUS INVESTIGATIONS

Key findings of the previous investigations completed within the Property are summarised below. The location of previous investigation points is shown in Figure 1, Appendix B.

Historically, the Site was developed in the late 1950s/early 1960s as the Balgownie Migrant's Hostel. During this time, multiple structures occupied the entirety of the Site. In 1975, the Site became UoW and the structures on what is proposed to become Field 1 had been removed. Several structures remained on what is proposed to become Field 2. By 1980, only the current Childcare Centre remained with the rest of the Site as vacant grassed land.

Subsurface conditions comprised a relatively thin layer of topsoil / fill material, underlain by alluvial clay /sand. Residual soil comprising a sandy clay was encountered at a depth of c.12 mbgs. Weathered sedimentary rock comprising sandstone and siltstone were recorded at depth.

Soil contamination was identified solely at one near-surface sample collected from borehole BH4 (0.1-0.2 mbgs). The lead concentration in this sample exceeded the adopted health and ecological assessment criteria (ASC NEPM, NEPC 2013). The vertical extent of the elevated lead concentration was delineated, indicating the depth of the lead impact was 0.9 mbgs or less. The source of lead was suspected to be from fill material and/or from the historical use and breakdown of lead paint on former structures at the Site.

Acid sulfate soil testing indicated that the alluvial subsurface soils may be acid-forming at depth, with one sample (BH10_1.5-1.95) having exceeded the action criteria in the Australian Government 2018 *National Acid Sulfate Soils Guidance*.

One round of ground gas monitoring was carried out. Elevated concentrations of carbon dioxide were recorded from BH1. Methane was not detected. Coffey concluded that ground gases pose a low risk, although the monitoring event was not considered reflective of conditions that promote positive gas flow. Ground gases were assessed to comprise Characteristic Situation 2 (CS2), which according to the recommendations outlined within the Hazardous Ground Gas Guidelines (NSW EPA, 2020), triggers the need for measures to be incorporated into the proposed structure to restrict gas ingress. Further gas monitoring was recommended over a range of atmospheric conditions to confirm these requirements.

# 3. METHODOLOGY

## 3.1 SAMPLING RATIONALE

To further characterise the soil to a depth of 3 mbgs at the Site, additional sampling was undertaken. The fieldwork incorporated 11 soil sampling locations distributed across the Site, increasing the sampling density to complement that completed in the DSI (Coffey, 2022).

The investigation was proposed to include monitoring of the two subsurface gas wells (BH1 and BH2), to investigate the potential for hazardous ground gas at the Site. However, at the time of the fieldworks, both gas wells were unserviceable. Monitoring well BH2 was under water and the other monitoring well (BH1) could not be located and it was suspected to have been damaged from lawn maintenance works.

## 3.2 SOIL SAMPLING

Soil sampling was conducted at the Site on 26th and 27th May 2022.

Eleven boreholes were advanced using a track-mounted drill rig using push tubes, to a maximum depth of 3.0 mBGL. Soil profiles were logged in accordance with *AS1726: 2017 Geotechnical Site Investigations.*

Soil samples were collected from each borehole at regular depth intervals. Samples were screened for volatile organic compounds (VOCs) using a photo-ionisation detector (PID) with 10.6eV lamp that was calibrated using 100 ppm isobutylene gas.

Soil samples were collected using disposable nitrile gloves directly from the push tube liners. Samples were collected into laboratory-supplied glass jars with a Teflon-lined lid and acid sulfate soils ziplock bags.

Samples were stored in ice-filled coolers and transported to NATA-accredited laboratories under chain of custody control (shown in Appendix F).

## 3.3 LABORATORY TESTING

Samples were dispatched to Eurofins Laboratory and Australian Laboratory Services Pty Ltd (ALS) with chain of custody (COC) documentation.

Eurofins and ALS hold NATA-accredited analytical methods for the scheduled analyses. Up to 2 primary samples were selected from each borehole (typically from surface and shallow soils). The remaining soil samples were placed on hold at the laboratory.

Analysis was selected based on the research completed as part of the DSI (Coffey, 2022), and included Heavy metals, TRH, PAH, BTEX, OCP, OPP, PCB, ASS Screening analysis ($pH_F$ and $pH_{FOX}$) and Suspension Peroxide Oxidation Combined Acidity and Sulphur (SPOCAS).

The laboratory analysis certificates, and associated chain of custody documentation is presented in Appendix F.

## 3.4 QUALITY ASSURANCE/ QUALITY CONTROL

The quality assurance/quality control (QA/QC) procedures followed during this investigation are described in this section. The assessment of the QA/QC outcomes are presented in Appendix H.

### 3.4.1 Fieldwork

The works were undertaken in accordance with the Coffey's Standard Operating Procedures (SOPs) which are based on industry accepted protocols for environmental sampling and are consistent with Schedule B(2) of the ASC NEPM (NEPC 2013).

Dedicated push tube liners were used for the advancement of each borehole, to provide a relatively undisturbed soil sample. Dedicated nitrile gloves were used at each sampling location. The use of dedicated sampling equipment minimised the potential for cross-contamination between sampling locations.

The PID was calibrated by the equipment supplier (Air-Met Scientific Pty Ltd) prior to dispatch to Coffey and use within the field. The PID was calibrated using fresh air, periodically during the investigation. Calibration records are included in Appendix G.

Samples were placed in appropriate sample containers (glass jars with Teflon seals, snap-lock plastic acid sulfate soil sample bags), supplied by the laboratories, and labelled with a unique identifying number.

Re-usable sampling equipment (hand auger) was decontaminated between boreholes with phosphate-free detergent (Decon-90) and potable water.

### 3.4.2 Laboratory

Quality control / quality assurance (QA/QC) samples were collected and analysed as follows:

- Two pairs of duplicate intra- and inter-laboratory soil samples (BH105_0-0.1, QA1, QA1A and BH1013_0.5-0.6 QA2, QA2A) to assess the precision and accuracy of soil analytical results.
- Two equipment rinsate samples were collected from the hand auger, to assess potential cross-contamination of samples during field sampling works.

Field duplicate results and calculated relative percentage difference (RPD) values for soil samples are presented in Appendix H. Analytical results for rinsate samples are presented in Appendix H.

### 3.4.3 Data Quality Assessment

The assessment of the QA/QC outcomes is presented in Appendix H. This assessment concludes that the data is of suitable quality to inform the assessment.

# 4. ASSESSMENT CRITERIA

## 4.1 WASTE CLASSIFICATION ASSESSMENT CRITERIA

To classify the in-situ material for waste disposal purposes, the laboratory results were compared to the Contaminant Threshold (CT) criteria for General Solid Waste provided in NSW EPA (2014) Waste Classification Guidelines – Part 1: Classifying Waste. The adopted waste classification criteria are presented in Table 1 of Appendix E.

The waste classification assessment also considered the guidance provided within NSW EPA (2014) Waste Classification Guidelines – Part 4: Acid Sulfate Soils

## 4.2 ACID SULFATE SOILS ASSESSMENT CRITERIA

To assess the potential for acid sulfate soils at the north-western portion of the Site, the following guidelines were referred to:

- National acid sulfate soils identification methods manual (Sullivan, L, Ward, N, Toppler, N and Lancaster, G 2018, *National Acid Sulfate Soils Guidance: National acid sulfate soils sampling and identification methods manual,* Department of Agriculture and Water Resources, Canberra ACT).
- National acid sulfate soils identification and laboratory methods manual *(Sullivan, L, Ward, N, Toppler, N and Lancaster, G 2018, National Acid Sulfate Soils Guidance: National acid sulfate soils identification and laboratory methods manual, Department of Agriculture and Water Resources, Canberra, ACT).*
- Acid Sulfate Soils Manual, NSW Acid Sulfate Soil Management Advisory Committee (ASSMAC) 1998.

The adopted acid sulfate soils assessment criteria is presented in Table 2 of Appendix E.

# 5. RESULTS OF INVESTIGATION

## 5.1 SUMMARY OF SUBSURFACE CONDITIONS

The general soil profiles encountered during the investigation have been summarised in Table 5.1. No visual or olfactory evidence of contamination was observed at the Site surface or within soil exposed at each borehole location.

**Table 5.1 – Generalised subsurface conditions and inferred geological units**

| Description | Typical Unit Thickness | Depth Encountered |
|---|---|---|
| **Fill / Topsoil**<br><br>CLAY, Clayey SAND / Sandy CLAY: moist, dark brown, medium plasticity, fine to medium grained sand, trace rootlets | 0-0.4 m | 0-0.4 mbgs |
| **Alluvium**<br><br>CLAY: moist, medium plasticity, grey, mottled red OR brown, mottled yellow | >2.6 m* | 0.4-3.0 mbgs |

Note: * - full thickness of soil unit not determined in current investigation

## 5.2 WASTE CLASSIFICATION ASSESSMENT

The waste classification assessment has considered laboratory results from the current investigation, and relevant results from the DSI (Coffey, 2022). The laboratory results relevant to the waste classification are presented in Table 1, Appendix E. The outcome of the waste classification process is summarised in Table 5.2.

**Table 2.2 Waste Classification assessment**

| | |
|---|---|
| **STEP 1: Is the Waste Special Waste?** | No |
| **STEP 2: Is the Waste Liquid Waste?** | No |
| **STEP 3: Is the Waste Pre-classified?** | No |
| **STEP 4: Does the waste possess hazardous characteristics** | No |
| **STEP 5: Chemical characterisation of the soil materials** | Analytical results for the Contaminants of Potential Concern (COPC) were below the CT1 assessment thresholds. Analytical Results are presented in Table 1 of Appendix E. |
| **STEP 6: Is the waste putrescible or non-putrescible?** | Non-putrescible. |
| **Waste Classification Conclusion** | The material that is the subject of this assessment is classified as General Solid Waste for disposal to a licensed landfill. |
| **Recommendations** | Waste must be transported by an appropriately licensed transporter and disposed to a facility that is licensed to receive that class of waste. |

## 5.3 ACID SULFATE SOILS ASSESSMENT

The Site is located within an area that is mapped as 'Disturbed Terrain' and adjoins an area that has been mapped as a high probability of ASS occurring at or near the ground surface.

Natural alluvium was described as clay which graded in colour from grey with mottled yellow and red were observed within undisturbed soil sores retrieved from the site. This colour grading was suspected to be associated with iron-containing mineral oxidation products of Reduced Inorganic Sulfur.

Whilst field pH measurements indicate that natural alluvium is acidic, given that all measurements reported a soil pH greater than 4 indicates the natural alluvium within the Site does not comprise Actual ASS. ASS screening analysis ($pH_F$ / $pH_{FOX}$) identified a reduction of one pH unit in several samples, although given the final pH readings were typically >3.5 and the oxidation reaction was graded as 'none to slight', the ASS screening analysis was considered inconclusive in determining whether the natural alluvium was Potential ASS (PASS).

Further detailed analysis via the SPOCAS method was completed on selected samples and natural alluvium that reported the greatest reduction in pH within the ASS Screening analysis. The SPOCAS analysis did not identify Actual ASS.

The SPOCAS analysis reported extractable Sulfur ranges between 0.01%S and 0.07%S from the natural soil. The SPOCAS analysis also indicates that the naturally acidic soil has little buffering capacity, with Net Acidity values ranging between 16 mol $H^+$/t and 200 mol $H^+$/t.

The assessment concludes that natural alluvium within the site occurring between 0.4 mbgs and 3 mbgs (i.e. the limit of this investigation) comprises PASS which would require treatment via neutralisation if this material was disturbed and reused on site, or disposed off-site as a waste. Liming rates between 1 kg $CaCO^3$/t and 15 kg $CaCO_3$/t were recommended to treat the PASS encountered in this assessment.

Given the reported Peroxide Oxidisable Sulfur (SPOS) and Titratable Sulfidic Acidity (TSA) values exceed the Action Criteria set out within Table 1.1 of National Acid Sulfate Soil Guidance (Sullivan, et.al., 2018) assuming 1000 tonnes would be disturbed, it is recommended that an ASS Management Plan is developed in relation to the proposed earthworks at this site.

It is noted that the presence of PASS would preclude the classification of natural alluvium as either Virgin Excavated Natural Material, or Excavated Natural Material.

# 6. CONCLUSIONS AND RECOMMENDATIONS

Based on the data obtained from the additional investigation, Coffey concludes that:

- The soils within the Site to a depth of 3mbgs is classified as General Solid Waste for disposal off-site to a licensed landfill.
- The acid sulfate soil analysis indicates that natural soils within the Site comprise Potential Acid Sulfate Soils (PASS). The presence of PASS precludes the classification of natural soil as Virgin Excavated Natural Material, or Excavated Natural Material (ENM).
- Natural soil excavated within the Site requires neutralisation treatment via the addition of lime to enable disposal of these materials to landfill, or reuse elsewhere on site. Available laboratory data indicates neutralisation liming rates between 1 and 15 kg $CaCO_3$/t will likely be required.
- The laboratory data exceeds the Action Criteria set out within the National Acid Sulfate Soil Guidance indicating an ASS Management Plan is required.
- Subsurface gas monitoring could not be conducted utilising existing gas wells BH1 and BH2 because they had been either damaged or completely submerged under surface water.

This report should be read in conjunction with the attached “Important information about your Tetra Tech Coffey Environmental Report”.

# 7. REFERENCES

Aurecon (2021a), *General Construction Plan, SGI-CV-SK-20-0010 Rev A* (dated 10 December 2021)

Aurecon (2021b), *Bulk Earthworks Site Plan, SGI-CV-SK-20-0020 Rev A* (dated 10 December 2021)

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Sullivan, L, Ward, N, Toppler, N and Lancaster, G (2018) *National Acid Sulfate Soils Guidance: National acid sulfate soils sampling and identification methods manual,* Department of Agriculture and Water Resources, Canberra ACT.

*Sullivan, L, Ward, N, Toppler, N and Lancaster, G (2018) National Acid Sulfate Soils Guidance: National acid sulfate soils identification and laboratory methods manual, Department of Agriculture and Water Resources, Canberra, ACT.*

# APPENDIX A: LIMITATIONS

# APPENDIX B: FIGURES


## LEGEND

Additional investigation - May 2022

- Environmental Borehole
- Environmental Borehole (Not completed)

Previous Tetra Tech investigation

- Geotechnical borehole location
- Environmental borehole location / Groundwater monitoring well
- CPT and environmental hand auger
- Geotechnical borehole location / Subsurface gas monitoring well
- Watercourse
- Lot boundary
- Site boundary

SOURCE
Sample locations and site boundary from Tetra Tech Coffey.
Watercourses and cadastre from DFSI.
Aerial imagery from Nearmap (capture date 01-11-2021).

N

0 40 80 m

SCALE **1:2,000**
PAGE SIZE: **A3**
PROJECTION: **GDA2020 MGA Zone 56**

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ST GEORGE ILLAWARRA DRAGONS
COMMUNITY AND HIGH PERFORMANCE CENTRE

# FIGURE 1

## Sampling Location Plan

TETRA TECH COFFEY

DATE: **24.06.22** PROJECT: **754-SYDEN295047** FILE: **295047_01_F001_GIS_REVB**

# APPENDIX C: SITE PHOTOGRAPHS

# APPENDIX C – SELECTED SITE PHOTOGRAPHS

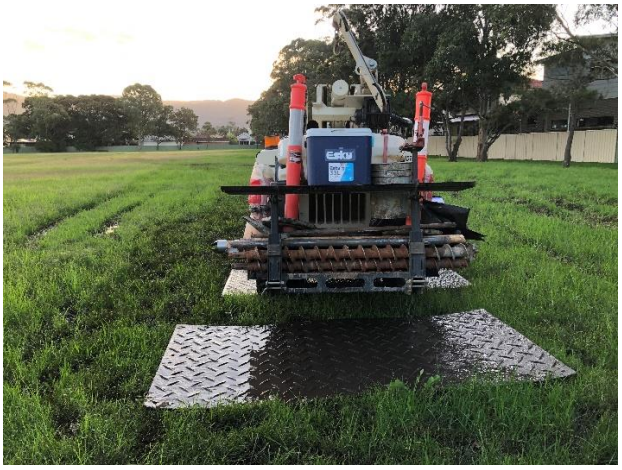

**Photo 1 –** View of track mats in use, facing west.

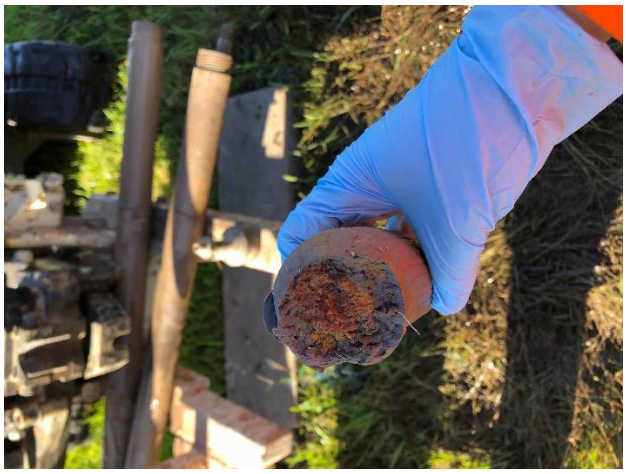

**Photo 2 –** Likely acid sulfate soils; grey with mottled yellow/red clay soil encountered across the Site subsurface.

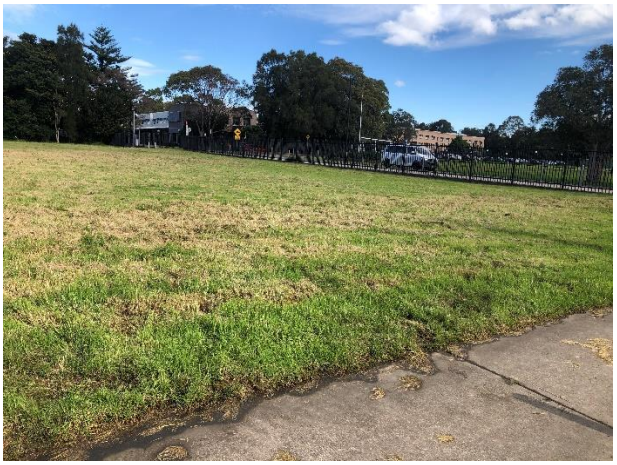

**Photo 3 –** Gas well BH1 likely damaged from lawn maintenance.

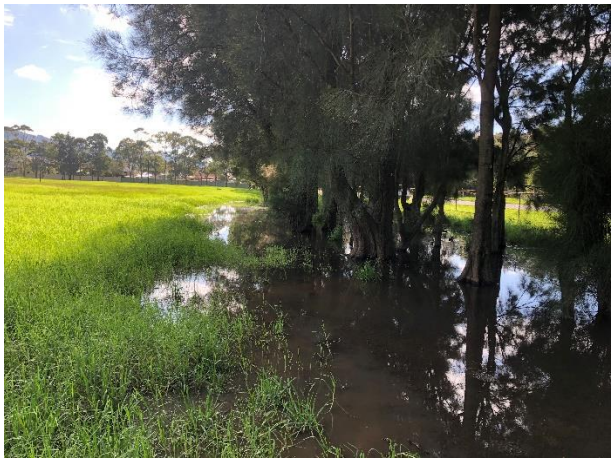

**Photo 4 –** Gas well BH2 submerged under water.

# APPENDIX D: BOREHOLE LOGS

TETRA TECH COFFEY

# Environmental Log - Borehole

| | |
|---|---|
| Hole ID. | ***BH101*** |
| sheet: | 1 of 2 |
| project no. | ***754-SYDGE295047*** |
| client: | ***St George Illawarra Rugby League Football Club Pty Limited*** |
| date started: | ***26 May 2022*** |
| principal: | |
| date completed: | ***26 May 2022*** |
| project: | ***St George Illawarra Dragons' Community & High Performance Training Centre*** |
| logged by: | ***WC*** |
| location: | ***7-9 Squires Way, Fairy Meadow NSW*** |
| checked by: | ***ML*** |

position: E: 151; N: -34 (Datum Not Specified) | surface elevation: Not Specified | angle from horizontal: 90°

equipment type: Geoprobe, Track mounted | drilling fluid: | hole diameter : 90 mm

**drilling information** | **material substance**

| method & support | water | samples & field tests | photoionization detector (ppmv) | RL (m) | depth (m) | graphic log | soil group symbol | material description (**SOIL NAME**: plasticity or particle characteristics, colour, secondary and minor components) | moisture condition | consistency / relative density | soil origin, structure and additional observations |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HA | Not Observed | E: BH101_0-0.1 | 0 | | | | Cl | **CLAY**: medium plasticity, dark grey, with trace sand. | W | | **FILL** No visual or olfactory evidence of contamination observed. |
| | | E: BH101_0.5-0.6 | 0 | | 0.5 | | Cl | **CLAY**: medium plasticity, brown, mottled yellow. | M | | **ALLUVIUM** |
| N | | | | | | | Cl | **CLAY**: medium plasticity, grey, with some fine to medium grained, angular to sub-angular gravel. | | | |
| PT | | E: BH101_1.0-1.2 | 0 | | 1.0 | | | | | | |

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**method**
- AD auger drilling*
- HA hand auger
- MR mud rotary
- W washbore
- PT push tube
- HS hollow stem
- SS solid stem
- SD sonic drilling
- * bit shown by suffix e.g. AD/T
- B blank bit
- T TC bit
- V V bit

**support**
- M mud
- C casing
- N nill

**water**
- 10-Oct-12 water level on date shown
- water inflow
- water outflow

**samples & field tests**
- B bulk disturbed sample
- D disturbed sample
- E environmental sample
- SS split spoon sample
- U## undisturbed sample ##mm diameter
- WS water sample
- HB hammer bouncing
- N standard penetration test (SPT)
- N* SPT - sample recovered
- Nc SPT with solid cone
- R refusal

**soil group symbol & material description** based on AS 1726:2017

**moisture condition**
- D dry
- M moist
- W wet

**consistency / relative density**
- VS very soft
- S soft
- F firm
- St stiff
- VSt very stiff
- H hard
- Fb friable
- VL very loose
- L loose
- MD medium dense
- D dense
- VD very dense

TETRA TECH COFFEY

# Environmental Log - Borehole

| | |
|---|---|
| Hole ID. | **BH101** |
| sheet: | 2 of 2 |
| project no. | **754-SYDGE295047** |
| date started: | **26 May 2022** |
| date completed: | **26 May 2022** |
| logged by: | **WC** |
| checked by: | **ML** |

client: ***St George Illawarra Rugby League Football Club Pty Limited***

principal:

project: ***St George Illawarra Dragons' Community & High Performance Training Centre***

location: ***7-9 Squires Way, Fairy Meadow NSW***

position: E: 151; N: -34 (Datum Not Specified) | surface elevation: Not Specified | angle from horizontal: 90°

equipment type: Geoprobe, Track mounted | drilling fluid: | hole diameter : 90 mm

| drilling information | | | | | | material substance | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| method & support | water | samples & field tests | photoionization detector (ppmv) | RL (m) | depth (m) | graphic log | soil group symbol | material description<br>**SOIL NAME**: plasticity or particle characteristics, colour, secondary and minor components | moisture condition | consistency / relative density | soil origin, structure and additional observations |
| PT<br>N | Not Observed | E: BH101_2.0-2.2 | 0 | | 2.0 | | Cl | **CLAY**: medium plasticity, grey, with some fine to medium grained, angular to sub-angular gravel. *(continued)* | M | | **ALLUVIUM** |
| | | E: BH101_2.4-2.6 | 0 | | 2.5 | | Cl | **CLAY**: medium plasticity, pale grey. | | | |
| | | | | | | | | Borehole BH101 terminated at 2.60 m<br>Refusal | | | |

**method**
- AD auger drilling*
- HA hand auger
- MR mud rotary
- W washbore
- PT push tube
- HS hollow stem
- SS solid stem
- SD sonic drilling
- * bit shown by suffix
- e.g. AD/T
- B blank bit
- T TC bit
- V V bit

**support**
- M mud
- C casing
- N nill

**water**
- 10-Oct-12 water level on date shown
- water inflow
- water outflow

**samples & field tests**
- B bulk disturbed sample
- D disturbed sample
- E environmental sample
- SS split spoon sample
- U## undisturbed sample ##mm diameter
- WS water sample
- HB hammer bouncing
- N standard penetration test (SPT)
- N* SPT - sample recovered
- Nc SPT with solid cone
- R refusal

**soil group symbol & material description**
based on AS 1726:2017

**moisture condition**
- D dry
- M moist
- W wet

**consistency / relative density**
- VS very soft
- S soft
- F firm
- St stiff
- VSt very stiff
- H hard
- Fb friable
- VL very loose
- L loose
- MD medium dense
- D dense
- VD very dense

TETRA TECH COFFEY

# Environmental Log - Hand Auger

| | |
|---|---|
| Hole ID. | ***BH1010*** |
| sheet: | 1 of 1 |
| project no. | ***754-SYDGE295047*** |
| client: | ***St George Illawarra Rugby League Football Club Pty Limited*** |
| date started: | ***27 May 2022*** |
| principal: | |
| date completed: | ***27 May 2022*** |
| project: | ***St George Illawarra Dragons' Community & High Performance Training Centre*** |
| logged by: | ***WC*** |
| location: | ***7-9 Squires Way, Fairy Meadow NSW*** |
| checked by: | ***ML*** |

position: E: 151; N: -34 (Datum Not Specified) | surface elevation: Not Specified | angle from horizontal: 90°

equipment type: Geoprobe, Track mounted | drilling fluid: | hole diameter : 90 mm

**drilling information** | **material substance**

| method & support | water | samples & field tests | photoionization detector (ppmv) | RL (m) | depth (m) | graphic log | soil group symbol | material description<br>**SOIL NAME**: plasticity or particle characteristics, colour, secondary and minor components | moisture condition | consistency / relative density | soil origin, structure and additional observations |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HA<br>N | Not Observed | E: BH1010_0-0.1 | 0 | | | | SC | **CLAYEY SAND**: fine to medium grained, sub-angular to angular, low to medium plasticity, brown. | W<br>M | | **FILL**<br>No visual or olfactory evidence of contamination observed. |
| | | E: BH1010_0.5-0.6 | 0 | | 0.5 | | Cl | **CLAY**: low to medium plasticity, brown. | | | **ALLUVIUM** |
| | | E: BH1010_0.9-1.0 | 0 | | | | | | | | |
| | | | | | 1.0 | | | Hand Auger BH1010 terminated at 1.00 m<br>Target depth | | | |

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**method**

| | |
|---|---|
| AD | auger drilling* |
| HA | hand auger |
| MR | mud rotary |
| W | washbore |
| PT | push tube |
| HS | hollow stem |
| SS | solid stem |
| SD | sonic drilling |
| * | bit shown by suffix |
| e.g. | AD/T |
| B | blank bit |
| T | TC bit |
| V | V bit |

**support**

| | |
|---|---|
| M | mud |
| C | casing |
| N | nill |

**water**

10-Oct-12 water level on date shown
water inflow
water outflow

**samples & field tests**

| | |
|---|---|
| B | bulk disturbed sample |
| D | disturbed sample |
| E | environmental sample |
| SS | split spoon sample |
| U## | undisturbed sample ##mm diameter |
| WS | water sample |
| HB | hammer bouncing |
| N | standard penetration test (SPT) |
| N* | SPT - sample recovered |
| Nc | SPT with solid cone |
| R | refusal |

**soil group symbol & material description**
based on AS 1726:2017

**moisture condition**

| | |
|---|---|
| D | dry |
| M | moist |
| W | wet |

**consistency / relative density**

| | |
|---|---|
| VS | very soft |
| S | soft |
| F | firm |
| St | stiff |
| VSt | very stiff |
| H | hard |
| Fb | friable |
| VL | very loose |
| L | loose |
| MD | medium dense |
| D | dense |
| VD | very dense |

TETRA TECH COFFEY

# Environmental Log - Borehole

| | |
|---|---|
| Hole ID. | ***BH1011*** |
| sheet: | 1 of 2 |
| project no. | ***754-SYDGE295047*** |
| client: | ***St George Illawarra Rugby League Football Club Pty Limited*** |
| date started: | ***27 May 2022*** |
| principal: | |
| date completed: | ***27 May 2022*** |
| project: | ***St George Illawarra Dragons' Community & High Performance Training Centre*** |
| logged by: | ***WC*** |
| location: | ***7-9 Squires Way, Fairy Meadow NSW*** |
| checked by: | ***ML*** |

position: E: 151; N: -34 (Datum Not Specified) | surface elevation: Not Specified | angle from horizontal: 90°

equipment type: Geoprobe, Track mounted | drilling fluid: | hole diameter : 90 mm

**drilling information** | **material substance**

| method & support | water | samples & field tests | photoionization detector (ppmv) | RL (m) | depth (m) | graphic log | soil group symbol | material description (**SOIL NAME**: plasticity or particle characteristics, colour, secondary and minor components) | moisture condition | consistency / relative density | soil origin, structure and additional observations |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HA | Not Observed | E: BH1011_0-0.1 | 0 | | | | SC | **CLAYEY SAND**: fine to medium grained, sub-angular to angular, low to medium plasticity, dark brown. | W | | **FILL** No visual or olfactory evidence of contamination observed. |
| | | E: BH1011_0.5-0.6 | 0 | | 0.5 | | Cl | **CLAY**: low to medium plasticity, brown. | M | | **ALLUVIUM** |
| PT | | E: BH1011_1.0-1.2 | 0 | | 1.0 | | Cl | **CLAY**: low to medium plasticity, grey, mottled yellow. | | | |

N

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**method**
- AD auger drilling*
- HA hand auger
- MR mud rotary
- W washbore
- PT push tube
- HS hollow stem
- SS solid stem
- SD sonic drilling
- * bit shown by suffix e.g. AD/T
- B blank bit
- T TC bit
- V V bit

**support**
- M mud
- C casing
- N nill

**water**
- 10-Oct-12 water level on date shown
- water inflow
- water outflow

**samples & field tests**
- B bulk disturbed sample
- D disturbed sample
- E environmental sample
- SS split spoon sample
- U## undisturbed sample ##mm diameter
- WS water sample
- HB hammer bouncing
- N standard penetration test (SPT)
- N* SPT - sample recovered
- Nc SPT with solid cone
- R refusal

**soil group symbol & material description** based on AS 1726:2017

**moisture condition**
- D dry
- M moist
- W wet

**consistency / relative density**

| | |
|---|---|
| VS | very soft |
| S | soft |
| F | firm |
| St | stiff |
| VSt | very stiff |
| H | hard |
| Fb | friable |
| VL | very loose |
| L | loose |
| MD | medium dense |
| D | dense |
| VD | very dense |

TETRA TECH COFFEY

# Environmental Log - Borehole

| | |
|---|---|
| Hole ID. | **BH1011** |
| sheet: | 2 of 2 |
| project no. | **754-SYDGE295047** |
| client: | ***St George Illawarra Rugby League Football Club Pty Limited*** |
| principal: | |
| project: | ***St George Illawarra Dragons' Community & High Performance Training Centre*** |
| location: | ***7-9 Squires Way, Fairy Meadow NSW*** |
| date started: | **27 May 2022** |
| date completed: | **27 May 2022** |
| logged by: | **WC** |
| checked by: | **ML** |

position: E: 151; N: -34 (Datum Not Specified) | surface elevation: Not Specified | angle from horizontal: 90°

equipment type: Geoprobe, Track mounted | drilling fluid: | hole diameter : 90 mm

**drilling information** | **material substance**

| method & support | water | samples & field tests | photoionization detector (ppmv) | RL (m) | depth (m) | graphic log | soil group symbol | material description (SOIL NAME: plasticity or particle characteristics, colour, secondary and minor components) | moisture condition | consistency / relative density | soil origin, structure and additional observations |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PT N | Not Observed | E: BH1011_2.0-2.2 | 0 | | 2.0 | | CI | **CLAY**: low to medium plasticity, grey, with some coarse red, angular to sub-angular gravel. | M | | **ALLUVIUM** |
| | | E: BH1011_2.8-3.0 | 0 | | 2.5 | | | Borehole BH1011 terminated at 3.0 m<br>Target depth | | | |

**method**
- AD auger drilling*
- HA hand auger
- MR mud rotary
- W washbore
- PT push tube
- HS hollow stem
- SS solid stem
- SD sonic drilling
- * bit shown by suffix e.g. AD/T
- B blank bit
- T TC bit
- V V bit

**support**
- M mud
- C casing
- N nill

**water**
- 10-Oct-12 water level on date shown
- water inflow
- water outflow

**samples & field tests**
- B bulk disturbed sample
- D disturbed sample
- E environmental sample
- SS split spoon sample
- U## undisturbed sample ##mm diameter
- WS water sample
- HB hammer bouncing
- N standard penetration test (SPT)
- N* SPT - sample recovered
- Nc SPT with solid cone
- R refusal

**soil group symbol & material description** based on AS 1726:2017

**moisture condition**
- D dry
- M moist
- W wet

**consistency / relative density**
- VS very soft
- S soft
- F firm
- St stiff
- VSt very stiff
- H hard
- Fb friable
- VL very loose
- L loose
- MD medium dense
- D dense
- VD very dense

TETRA TECH COFFEY

# Environmental Log - Borehole

| | |
|---|---|
| Hole ID. | ***BH1013*** |
| sheet: | 1 of 2 |
| project no. | ***754-SYDGE295047*** |
| client: | ***St George Illawarra Rugby League Football Club Pty Limited*** |
| date started: | ***27 May 2022*** |
| principal: | |
| date completed: | ***27 May 2022*** |
| project: | ***St George Illawarra Dragons' Community & High Performance Training Centre*** |
| logged by: | ***WC*** |
| location: | ***7-9 Squires Way, Fairy Meadow NSW*** |
| checked by: | ***ML*** |

position: E: 151; N: -34 (Datum Not Specified) | surface elevation: Not Specified | angle from horizontal: 90°

equipment type: Geoprobe, Track mounted | drilling fluid: | hole diameter : 90 mm

**drilling information** | **material substance**

| method & support | water | samples & field tests | photoionization detector (ppmv) | RL (m) | depth (m) | graphic log | soil group symbol | material description (**SOIL NAME**: plasticity or particle characteristics, colour, secondary and minor components) | moisture condition | consistency / relative density | soil origin, structure and additional observations |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HA, N, PT | Not Observed | E: BH1013_0-0.1 | 0 | | | | SC | **CLAYEY SAND**: fine to medium grained, dark brown, with trace coarse grained, angular to sub-angular gravel. | M | | **FILL** No visual or olfactory evidence of contamination observed. |
| | | E: BH1013_0.5-0.6 | 0 | | 0.5 | | SC | **Sandy CLAY**: fine to medium grained, brown, with trace coarse grained, angular to sub-angular gravel. | | | |
| | | | | | | | Cl | **CLAY**: low to medium plasticity, mottled red. | | | **ALLUVIUM** |
| | | E: BH1013_1.0-1.2 | 0 | | 1.0 | | Cl | **CLAY**: low to medium plasticity, grey, with some coarse grained, angular to sub-angular gravel. | | | |

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**method**
- AD auger drilling*
- HA hand auger
- MR mud rotary
- W washbore
- PT push tube
- HS hollow stem
- SS solid stem
- SD sonic drilling
- * bit shown by suffix e.g. AD/T
- B blank bit
- T TC bit
- V V bit

**support**
- M mud
- C casing
- N nill

**water**
- 10-Oct-12 water level on date shown
- water inflow
- water outflow

**samples & field tests**
- B bulk disturbed sample
- D disturbed sample
- E environmental sample
- SS split spoon sample
- U## undisturbed sample ##mm diameter
- WS water sample
- HB hammer bouncing
- N standard penetration test (SPT)
- N* SPT - sample recovered
- Nc SPT with solid cone
- R refusal

**soil group symbol & material description** based on AS 1726:2017

**moisture condition**
- D dry
- M moist
- W wet

**consistency / relative density**
- VS very soft
- S soft
- F firm
- St stiff
- VSt very stiff
- H hard
- Fb friable
- VL very loose
- L loose
- MD medium dense
- D dense
- VD very dense

TETRA TECH COFFEY

# Environmental Log - Borehole

| | |
|---|---|
| Hole ID. | **BH1013** |
| sheet: | 2 of 2 |
| project no. | **754-SYDGE295047** |
| date started: | **27 May 2022** |
| date completed: | **27 May 2022** |
| logged by: | **WC** |
| checked by: | **ML** |

client: ***St George Illawarra Rugby League Football Club Pty Limited***

principal:

project: ***St George Illawarra Dragons' Community & High Performance Training Centre***

location: ***7-9 Squires Way, Fairy Meadow NSW***

position: E: 151; N: -34 (Datum Not Specified) | surface elevation: Not Specified | angle from horizontal: 90°

equipment type: Geoprobe, Track mounted | drilling fluid: | hole diameter : 90 mm

| drilling information | | | | | | material substance | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| method & support | water | samples & field tests | photoionization detector (ppmv) | RL (m) | depth (m) | graphic log | soil group symbol | material description<br>**SOIL NAME**: plasticity or particle characteristics, colour, secondary and minor components | moisture condition | consistency / relative density | soil origin, structure and additional observations |
| PT<br>N | Not Observed | | | | | | Cl | **CLAY**: low to medium plasticity, grey, with some coarse grained, angular to sub-angular gravel. *(continued)* | M | | **ALLUVIUM** |
| | | | | | | | | | | S | |
| | | E: BH1013_2.0-2.2 | 0 | | 2.0 | | | | | | |
| | | | | | 2.5 | | | | | | |
| | | E: BH1013_2.8-3.0 | 0 | | | | | Borehole BH1013 terminated at 3.0 m<br>Target depth | | | |

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**method**
- AD auger drilling*
- HA hand auger
- MR mud rotary
- W washbore
- PT push tube
- HS hollow stem
- SS solid stem
- SD sonic drilling
- * bit shown by suffix e.g. AD/T
- B blank bit
- T TC bit
- V V bit

**support**
- M mud
- C casing
- N nill

**water**
- 10-Oct-12 water level on date shown
- water inflow
- water outflow

**samples & field tests**
- B bulk disturbed sample
- D disturbed sample
- E environmental sample
- SS split spoon sample
- U## undisturbed sample ##mm diameter
- WS water sample
- HB hammer bouncing
- N standard penetration test (SPT)
- N* SPT - sample recovered
- Nc SPT with solid cone
- R refusal

**soil group symbol & material description**
based on AS 1726:2017

**moisture condition**
- D dry
- M moist
- W wet

**consistency / relative density**
- VS very soft
- S soft
- F firm
- St stiff
- VSt very stiff
- H hard
- Fb friable
- VL very loose
- L loose
- MD medium dense
- D dense
- VD very dense

TETRA TECH COFFEY

# Environmental Log - Hand Auger

| | |
|---|---|
| Hole ID. | **BH1014** |
| sheet: | 1 of 1 |
| project no. | **754-SYDGE295047** |
| client: | ***St George Illawarra Rugby League Football Club Pty Limited*** |
| principal: | |
| project: | ***St George Illawarra Dragons' Community & High Performance Training Centre*** |
| location: | ***7-9 Squires Way, Fairy Meadow NSW*** |
| date started: | **27 May 2022** |
| date completed: | **27 May 2022** |
| logged by: | **WC** |
| checked by: | **ML** |

position: E: 151; N: -34 (Datum Not Specified) | surface elevation: Not Specified | angle from horizontal: 90°

equipment type: Geoprobe, Track mounted | drilling fluid: | hole diameter : 90 mm

**drilling information** | **material substance**

| method & support | water | samples & field tests | photoionization detector (ppmv) | RL (m) | depth (m) | graphic log | soil group symbol | material description (SOIL NAME: plasticity or particle characteristics, colour, secondary and minor components) | moisture condition | consistency / relative density | soil origin, structure and additional observations |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HA N | Not Observed | E: BH1014_0-0.1 | 0 | | | | SC | **CLAYEY SAND**: fine to medium grained, low to medium plasticity, dark brown. | M | | **FILL** No visual or olfactory evidence of contamination observed. |
| | | | | | | | | faint hydrocarbon odour | | | |
| | | E: BH1014_0.5-0.6 | 0 | | 0.5 | | SC | **Sandy CLAY**: fine to medium grained, low to medium plasticity, brown. | | | **ALLUVIUM** |
| | | | | | | | CI | **CLAY**: low to medium plasticity, brown, grey. | | | |
| | | E: BH1014_0.8-0.9 | 0 | | | | | | | | |
| | | | | | 1.0 | | | Hand Auger BH1014 terminated at 0.90 m Refusal | | | |

**method**
- AD auger drilling*
- HA hand auger
- MR mud rotary
- W washbore
- PT push tube
- HS hollow stem
- SS solid stem
- SD sonic drilling
- * bit shown by suffix e.g. AD/T
- B blank bit
- T TC bit
- V V bit

**support**
- M mud
- C casing
- N nill

**water**
- 10-Oct-12 water level on date shown
- water inflow
- water outflow

**samples & field tests**
- B bulk disturbed sample
- D disturbed sample
- E environmental sample
- SS split spoon sample
- U## undisturbed sample ##mm diameter
- WS water sample
- HB hammer bouncing
- N standard penetration test (SPT)
- N* SPT - sample recovered
- Nc SPT with solid cone
- R refusal

**soil group symbol & material description** based on AS 1726:2017

**moisture condition**
- D dry
- M moist
- W wet

**consistency / relative density**
- VS very soft
- S soft
- F firm
- St stiff
- VSt very stiff
- H hard
- Fb friable
- VL very loose
- L loose
- MD medium dense
- D dense
- VD very dense

TETRA TECH COFFEY

# Environmental Log - Hand Auger

| | |
|---|---|
| Hole ID. | ***BH1015*** |
| sheet: | 1 of 1 |
| project no. | ***754-SYDGE295047*** |
| client: | ***St George Illawarra Rugby League Football Club Pty Limited*** |
| principal: | |
| project: | ***St George Illawarra Dragons' Community & High Performance Training Centre*** |
| location: | ***7-9 Squires Way, Fairy Meadow NSW*** |
| date started: | ***26 May 2022*** |
| date completed: | ***26 May 2022*** |
| logged by: | ***WC*** |
| checked by: | ***ML*** |

position: E: 151; N: -34 (Datum Not Specified) | surface elevation: Not Specified | angle from horizontal: 90°

equipment type: Geoprobe, Track mounted | drilling fluid: | hole diameter : 90 mm

**drilling information** | **material substance**

| method & support | water | samples & field tests | photoionization detector (ppmv) | RL (m) | depth (m) | graphic log | soil group symbol | material description (SOIL NAME: plasticity or particle characteristics, colour, secondary and minor components) | moisture condition | consistency / relative density | soil origin, structure and additional observations |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HA N | Not Observed | E: BH1015_0-0.1 | 0 | | | | SC | **CLAYEY SAND**: fine to medium grained, low to medium plasticity, brown. | W | | **FILL** No visual or olfactory evidence of contamination observed. |
| | | E: BH1015_0.5-0.6 | 0 | | 0.5 | | CI | **CLAY**: low to medium plasticity, grey, mottled red. | M | | **ALLUVIUM** |
| | | E: BH1015_1.0-1.1 | 0 | | 1.0 | | | | | | |
| | | | | | | | | Hand Auger BH1015 terminated at 1.10 m Target depth | | | |

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**method**
- AD auger drilling*
- HA hand auger
- MR mud rotary
- W washbore
- PT push tube
- HS hollow stem
- SS solid stem
- SD sonic drilling
- * bit shown by suffix
- e.g. AD/T
- B blank bit
- T TC bit
- V V bit

**support**
- M mud
- C casing
- N nill

**water**
- 10-Oct-12 water level on date shown
- water inflow
- water outflow

**samples & field tests**
- B bulk disturbed sample
- D disturbed sample
- E environmental sample
- SS split spoon sample
- U## undisturbed sample ##mm diameter
- WS water sample
- HB hammer bouncing
- N standard penetration test (SPT)
- N* SPT - sample recovered
- Nc SPT with solid cone
- R refusal

**soil group symbol & material description** based on AS 1726:2017

**moisture condition**
- D dry
- M moist
- W wet

**consistency / relative density**
- VS very soft
- S soft
- F firm
- St stiff
- VSt very stiff
- H hard
- Fb friable
- VL very loose
- L loose
- MD medium dense
- D dense
- VD very dense

TETRA TECH COFFEY

# Environmental Log - Borehole

| | |
|---|---|
| Hole ID. | ***BH105*** |
| sheet: | 1 of 2 |
| project no. | ***754-SYDGE295047*** |
| client: | ***St George Illawarra Rugby League Football Club Pty Limited*** |
| date started: | ***27 May 2022*** |
| principal: | |
| date completed: | ***27 May 2022*** |
| project: | ***St George Illawarra Dragons' Community & High Performance Training Centre*** |
| logged by: | ***WC*** |
| location: | ***7-9 Squires Way, Fairy Meadow NSW*** |
| checked by: | ***ML*** |

position: E: 151; N: -34 (Datum Not Specified) | surface elevation: Not Specified | angle from horizontal: 90°

equipment type: Geoprobe, Track mounted | drilling fluid: | hole diameter : 90 mm

**drilling information** | **material substance**

| method & support | water | samples & field tests | photoionization detector (ppmv) | RL (m) | depth (m) | graphic log | soil group symbol | material description (**SOIL NAME**: plasticity or particle characteristics, colour, secondary and minor components) | moisture condition | consistency / relative density | soil origin, structure and additional observations |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HA, N, PT | Not Observed | E: BH105_0-0.1 | 0 | | | | Cl | **CLAY**: low to medium plasticity, brown, with some fine to medium grained sand. | W / M | | **FILL** No visual or olfactory evidence of contamination observed. |
| | | E: BH105_0.5-0.6 | 0 | | 0.5 | | Cl | **CLAY**: low to medium plasticity, brown. | | | **ALLUVIUM** |
| | | | | | | | Cl | **CLAY**: low to medium plasticity, pale grey, mottled orange. | | | |
| | | E: BH105_1.0-1.2 | 0 | | 1.0 | | | | | | |

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**method**
- AD auger drilling*
- HA hand auger
- MR mud rotary
- W washbore
- PT push tube
- HS hollow stem
- SS solid stem
- SD sonic drilling
- * bit shown by suffix e.g. AD/T
- B blank bit
- T TC bit
- V V bit

**support**
- M mud
- C casing
- N nill

**water**
- 10-Oct-12 water level on date shown
- water inflow
- water outflow

**samples & field tests**
- B bulk disturbed sample
- D disturbed sample
- E environmental sample
- SS split spoon sample
- U## undisturbed sample ##mm diameter
- WS water sample
- HB hammer bouncing
- N standard penetration test (SPT)
- N* SPT - sample recovered
- Nc SPT with solid cone
- R refusal

**soil group symbol & material description** based on AS 1726:2017

**moisture condition**
- D dry
- M moist
- W wet

**consistency / relative density**

| | |
|---|---|
| VS | very soft |
| S | soft |
| F | firm |
| St | stiff |
| VSt | very stiff |
| H | hard |
| Fb | friable |
| VL | very loose |
| L | loose |
| MD | medium dense |
| D | dense |
| VD | very dense |

TETRA TECH COFFEY

# Environmental Log - Borehole

| | |
|---|---|
| Hole ID. | ***BH105*** |
| sheet: | 2 of 2 |
| project no. | ***754-SYDGE295047*** |
| client: | ***St George Illawarra Rugby League Football Club Pty Limited*** |
| principal: | |
| project: | ***St George Illawarra Dragons' Community & High Performance Training Centre*** |
| location: | ***7-9 Squires Way, Fairy Meadow NSW*** |
| date started: | ***27 May 2022*** |
| date completed: | ***27 May 2022*** |
| logged by: | ***WC*** |
| checked by: | ***ML*** |

position: E: 151; N: -34 (Datum Not Specified) | surface elevation: Not Specified | angle from horizontal: 90°

equipment type: Geoprobe, Track mounted | drilling fluid: | hole diameter : 90 mm

**drilling information** | **material substance**

| method & support | water | samples & field tests | photoionization detector (ppmv) | RL (m) | depth (m) | graphic log | soil group symbol | material description (**SOIL NAME**: plasticity or particle characteristics, colour, secondary and minor components) | moisture condition | consistency / relative density | soil origin, structure and additional observations |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PT | Not Observed | | | | | | Cl | **CLAY**: low to medium plasticity, mottled red. | M | | **ALLUVIUM** |
| | | E: BH105_2.0-2.2 | 0 | | 2.0 | | Cl | **CLAY**: low to medium plasticity, dark grey. | | | |
| | | E: BH105_2.5-2.7 | 0 | | 2.5 | | | | | | |
| | | | | | | | | Borehole BH105 terminated at 2.7 m<br>Refusal | | | |

N

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**method**
- AD auger drilling*
- HA hand auger
- MR mud rotary
- W washbore
- PT push tube
- HS hollow stem
- SS solid stem
- SD sonic drilling
- * bit shown by suffix e.g. AD/T
- B blank bit
- T TC bit
- V V bit

**support**
- M mud
- C casing
- N nill

**water**
- 10-Oct-12 water level on date shown
- water inflow
- water outflow

**samples & field tests**
- B bulk disturbed sample
- D disturbed sample
- E environmental sample
- SS split spoon sample
- U## undisturbed sample ##mm diameter
- WS water sample
- HB hammer bouncing
- N standard penetration test (SPT)
- N* SPT - sample recovered
- Nc SPT with solid cone
- R refusal

**soil group symbol & material description** based on AS 1726:2017

**moisture condition**
- D dry
- M moist
- W wet

**consistency / relative density**
- VS very soft
- S soft
- F firm
- St stiff
- VSt very stiff
- H hard
- Fb friable
- VL very loose
- L loose
- MD medium dense
- D dense
- VD very dense

TETRA TECH COFFEY

# Environmental Log - Borehole

| | |
|---|---|
| Hole ID. | ***BH106*** |
| sheet: | 1 of 2 |
| project no. | ***754-SYDGE295047*** |
| client: | ***St George Illawarra Rugby League Football Club Pty Limited*** |
| principal: | |
| project: | ***St George Illawarra Dragons' Community & High Performance Training Centre*** |
| location: | ***7-9 Squires Way, Fairy Meadow NSW*** |
| date started: | ***26 May 2022*** |
| date completed: | ***26 May 2022*** |
| logged by: | ***WC*** |
| checked by: | ***ML*** |

position: E: 151; N: -34 (Datum Not Specified) | surface elevation: Not Specified | angle from horizontal: 90°

equipment type: Geoprobe, Track mounted | drilling fluid: | hole diameter : 90 mm

**drilling information** | **material substance**

| method & support | water | samples & field tests | photoionization detector (ppmv) | RL (m) | depth (m) | graphic log | soil group symbol | material description (**SOIL NAME**: plasticity or particle characteristics, colour, secondary and minor components) | moisture condition | consistency / relative density | soil origin, structure and additional observations |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HA | Not Observed | E: BH106_0-0.1 | 0 | | | | SC | **CLAYEY SAND**: fine to medium grained, dark grey, with trace medium to coarse grained, angular to sub-angular gravel. | W | | **FILL** No visual or olfactory evidence of contamination observed. |
| | | E: BH106_0.5-0.6 | 0 | | 0.5 | | Cl | **CLAY**: low to medium plasticity, brown, mottled yellow. | M | | **ALLUVIUM** |
| N | | E: BH106_1.0-1.2 | 0 | | 1.0 | | | | | | |
| PT | | | | | | | | | | | |

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**method**
- AD auger drilling*
- HA hand auger
- MR mud rotary
- W washbore
- PT push tube
- HS hollow stem
- SS solid stem
- SD sonic drilling
- * bit shown by suffix e.g. AD/T
- B blank bit
- T TC bit
- V V bit

**support**
- M mud
- C casing
- N nill

**water**
- 10-Oct-12 water level on date shown
- water inflow
- water outflow

**samples & field tests**
- B bulk disturbed sample
- D disturbed sample
- E environmental sample
- SS split spoon sample
- U## undisturbed sample ##mm diameter
- WS water sample
- HB hammer bouncing
- N standard penetration test (SPT)
- N* SPT - sample recovered
- Nc SPT with solid cone
- R refusal

**soil group symbol & material description** based on AS 1726:2017

**moisture condition**
- D dry
- M moist
- W wet

**consistency / relative density**
- VS very soft
- S soft
- F firm
- St stiff
- VSt very stiff
- H hard
- Fb friable
- VL very loose
- L loose
- MD medium dense
- D dense
- VD very dense

TETRA TECH COFFEY

# Environmental Log - Borehole

| | |
|---|---|
| Hole ID. | ***BH106*** |
| sheet: | 2 of 2 |
| project no. | ***754-SYDGE295047*** |
| client: | ***St George Illawarra Rugby League Football Club Pty Limited*** |
| principal: | |
| project: | ***St George Illawarra Dragons' Community & High Performance Training Centre*** |
| location: | ***7-9 Squires Way, Fairy Meadow NSW*** |
| date started: | ***26 May 2022*** |
| date completed: | ***26 May 2022*** |
| logged by: | ***WC*** |
| checked by: | ***ML*** |

position: E: 151; N: -34 (Datum Not Specified) | surface elevation: Not Specified | angle from horizontal: 90°

equipment type: Geoprobe, Track mounted | drilling fluid: | hole diameter : 90 mm

**drilling information** | **material substance**

| method & support | water | samples & field tests | photoionization detector (ppmv) | RL (m) | depth (m) | graphic log | soil group symbol | material description (**SOIL NAME**: plasticity or particle characteristics, colour, secondary and minor components) | moisture condition | consistency / relative density | soil origin, structure and additional observations |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PT, N | Not Observed | E: BH106_2.0-2.2 | 0 | | 2.0 | | CI | **CLAY**: low to medium plasticity, red, grey. | M | | **ALLUVIUM** |
| | | E: BH106_2.8-3.0 | 0 | | 2.5 | | CI | **CLAY**: low to medium plasticity, pale grey. | | | |
| | | | | | | | SC | **Sandy CLAY**: fine to medium grained, low to medium plasticity, grey.<br>Borehole BH106 terminated at 3.0 m<br>Target depth | | | |

CDF_0_10_00.3_LIBRARY.GLB rev:CDF_0_10_00.3 2020-08-25 Log COF BOREHOLE: ENVIRONMENTAL ENVIRO.GPJ <<DrawingFile>> 30/06/2022 16:52

**method**
- AD auger drilling*
- HA hand auger
- MR mud rotary
- W washbore
- PT push tube
- HS hollow stem
- SS solid stem
- SD sonic drilling
- * bit shown by suffix
- e.g. AD/T
- B blank bit
- T TC bit
- V V bit

**support**
- M mud
- C casing
- N nill

**water**
- 10-Oct-12 water level on date shown
- water inflow
- water outflow

**samples & field tests**
- B bulk disturbed sample
- D disturbed sample
- E environmental sample
- SS split spoon sample
- U## undisturbed sample ##mm diameter
- WS water sample
- HB hammer bouncing
- N standard penetration test (SPT)
- N* SPT - sample recovered
- Nc SPT with solid cone
- R refusal

**soil group symbol & material description**
based on AS 1726:2017

**moisture condition**
- D dry
- M moist
- W wet

**consistency / relative density**
- VS very soft
- S soft
- F firm
- St stiff
- VSt very stiff
- H hard
- Fb friable
- VL very loose
- L loose
- MD medium dense
- D dense
- VD very dense

TETRA TECH COFFEY

# Environmental Log - Borehole

| | |
|---|---|
| Hole ID. | ***BH107*** |
| sheet: | 1 of 2 |
| project no. | ***754-SYDGE295047*** |
| client: | ***St George Illawarra Rugby League Football Club Pty Limited*** |
| date started: | ***26 May 2022*** |
| principal: | |
| date completed: | ***26 May 2022*** |
| project: | ***St George Illawarra Dragons' Community & High Performance Training Centre*** |
| logged by: | ***WC*** |
| location: | ***7-9 Squires Way, Fairy Meadow NSW*** |
| checked by: | ***ML*** |

position: E: 151; N: -34 (Datum Not Specified) | surface elevation: Not Specified | angle from horizontal: 90°

equipment type: Geoprobe, Track mounted | drilling fluid: | hole diameter : 90 mm

**drilling information** | **material substance**

| method & support | water | samples & field tests | photoionization detector (ppmv) | RL (m) | depth (m) | graphic log | soil group symbol | material description (**SOIL NAME**: plasticity or particle characteristics, colour, secondary and minor components) | moisture condition | consistency / relative density | soil origin, structure and additional observations |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HA, N, PT | Not Observed | E: BH107_0-0.1 | 0 | | | | SC | **CLAYEY SAND**: fine to medium grained, low to medium plasticity, dark grey, with trace medium to coarse grained, angular to sub-angular gravel. | W | | **FILL** No visual or olfactory evidence of contamination observed. |
| | | E: BH107_0.5-0.6 | 0 | | 0.5 | | Cl | **CLAY**: low to medium plasticity, pale brown, mottled yellow and red. | M | | **ALLUVIUM** |
| | | E: BH107_0.9-1.0 | 0 | | 1.0 | | Cl | **CLAY**: low to medium plasticity, grey, mottled yellow. | | | |

CDF_0_10_00.3_LIBRARY.GLB rev:CDF_0_10_00.3 2020-08-25 Log COF BOREHOLE: ENVIRONMENTAL ENVIRO.GPJ <<DrawingFile>> 30/06/2022 16:52

**method**
- AD auger drilling*
- HA hand auger
- MR mud rotary
- W washbore
- PT push tube
- HS hollow stem
- SS solid stem
- SD sonic drilling
- * bit shown by suffix e.g. AD/T
- B blank bit
- T TC bit
- V V bit

**support**
- M mud
- C casing
- N nill

**water**
- 10-Oct-12 water level on date shown
- water inflow
- water outflow

**samples & field tests**
- B bulk disturbed sample
- D disturbed sample
- E environmental sample
- SS split spoon sample
- U## undisturbed sample ##mm diameter
- WS water sample
- HB hammer bouncing
- N standard penetration test (SPT)
- N* SPT - sample recovered
- Nc SPT with solid cone
- R refusal

**soil group symbol & material description** based on AS 1726:2017

**moisture condition**
- D dry
- M moist
- W wet

**consistency / relative density**
- VS very soft
- S soft
- F firm
- St stiff
- VSt very stiff
- H hard
- Fb friable
- VL very loose
- L loose
- MD medium dense
- D dense
- VD very dense

TETRA TECH COFFEY

# Environmental Log - Borehole

| | |
|---|---|
| Hole ID. | ***BH107*** |
| sheet: | 2 of 2 |
| project no. | ***754-SYDGE295047*** |
| client: | ***St George Illawarra Rugby League Football Club Pty Limited*** |
| date started: | ***26 May 2022*** |
| principal: | |
| date completed: | ***26 May 2022*** |
| project: | ***St George Illawarra Dragons' Community & High Performance Training Centre*** |
| logged by: | ***WC*** |
| location: | ***7-9 Squires Way, Fairy Meadow NSW*** |
| checked by: | ***ML*** |

position: E: 151; N: -34 (Datum Not Specified) | surface elevation: Not Specified | angle from horizontal: 90°

equipment type: Geoprobe, Track mounted | drilling fluid: | hole diameter : 90 mm

**drilling information** | **material substance**

| method & support | water | samples & field tests | photoionization detector (ppmv) | RL (m) | depth (m) | graphic log | soil group symbol | material description (SOIL NAME: plasticity or particle characteristics, colour, secondary and minor components) | moisture condition | consistency / relative density | soil origin, structure and additional observations |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PT N | Not Observed | | | | | | Cl | **CLAY**: low to medium plasticity, grey, mottled yellow. *(continued)* | M | | **ALLUVIUM** |
| | | E: BH107_2.0-2.2 | 0 | | 2.0 | | Cl | **CLAY**: low to medium plasticity, red. | | | |
| | | | | | | | Cl | **CLAY**: low to medium plasticity, grey. | | | |
| | | E: BH107_2.8-3.0 | 0 | | 2.5 | | | Borehole BH107 terminated at 3.0 m Target depth | | | |

CDF_0_10_00.3_LIBRARY.GLB rev:CDF_0_10_00.3 2020-08-25 Log COF BOREHOLE: ENVIRONMENTAL ENVIRO.GPJ <<DrawingFile>> 30/06/2022 16:52

**method**
- AD auger drilling*
- HA hand auger
- MR mud rotary
- W washbore
- PT push tube
- HS hollow stem
- SS solid stem
- SD sonic drilling
- * bit shown by suffix
- e.g. AD/T
- B blank bit
- T TC bit
- V V bit

**support**
- M mud
- C casing
- N nill

**water**
- 10-Oct-12 water level on date shown
- water inflow
- water outflow

**samples & field tests**
- B bulk disturbed sample
- D disturbed sample
- E environmental sample
- SS split spoon sample
- U## undisturbed sample ##mm diameter
- WS water sample
- HB hammer bouncing
- N standard penetration test (SPT)
- N* SPT - sample recovered
- Nc SPT with solid cone
- R refusal

**soil group symbol & material description** based on AS 1726:2017

**moisture condition**
- D dry
- M moist
- W wet

**consistency / relative density**
- VS very soft
- S soft
- F firm
- St stiff
- VSt very stiff
- H hard
- Fb friable
- VL very loose
- L loose
- MD medium dense
- D dense
- VD very dense

TETRA TECH COFFEY

# Environmental Log - Borehole

| | |
|---|---|
| Hole ID. | ***BH108*** |
| sheet: | 1 of 2 |
| project no. | ***754-SYDGE295047*** |
| client: | ***St George Illawarra Rugby League Football Club Pty Limited*** |
| principal: | |
| project: | ***St George Illawarra Dragons' Community & High Performance Training Centre*** |
| location: | ***7-9 Squires Way, Fairy Meadow NSW*** |
| date started: | ***26 May 2022*** |
| date completed: | ***26 May 2022*** |
| logged by: | ***WC*** |
| checked by: | ***ML*** |

position: E: 151; N: -34 (Datum Not Specified) | surface elevation: Not Specified | angle from horizontal: 90°

equipment type: Geoprobe, Track mounted | drilling fluid: | hole diameter : 90 mm

**drilling information** | **material substance**

| method & support | water | samples & field tests | photoionization detector (ppmv) | RL (m) | depth (m) | graphic log | soil group symbol | material description (**SOIL NAME**: plasticity or particle characteristics, colour, secondary and minor components) | moisture condition | consistency / relative density | soil origin, structure and additional observations |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HA | Not Observed | E: BH108_0-0.1 | 0 | | | | Cl | **CLAY**: low to medium plasticity, brown, with fine grained, angular to sub-angular gravel. | W | | **FILL** No visual or olfactory evidence of contamination observed. |
| | | E: BH108_0.5-0.6 | 0 | | 0.5 | | Cl | **CLAY**: low to medium plasticity, dark grey. | M | | **ALLUVIUM** |
| | | | | | | | Cl | **CLAY**: low to medium plasticity, mottled red. | | | |
| N | | E: BH108_1.0-1.2 | 0 | | 1.0 | | Cl | **CLAY**: low to medium plasticity, brown. | | | |
| PT | | | | | | | | | | | |

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**method**
AD auger drilling*
HA hand auger
MR mud rotary
W washbore
PT push tube
HS hollow stem
SS solid stem
SD sonic drilling
* bit shown by suffix
e.g. AD/T
B blank bit
T TC bit
V V bit

**support**
M mud
C casing
N nill

**water**
10-Oct-12 water level on date shown
water inflow
water outflow

**samples & field tests**
B bulk disturbed sample
D disturbed sample
E environmental sample
SS split spoon sample
U## undisturbed sample ##mm diameter
WS water sample
HB hammer bouncing
N standard penetration test (SPT)
N* SPT - sample recovered
Nc SPT with solid cone
R refusal

**soil group symbol & material description**
based on AS 1726:2017

**moisture condition**
D dry
M moist
W wet

**consistency / relative density**

| | |
|---|---|
| VS | very soft |
| S | soft |
| F | firm |
| St | stiff |
| VSt | very stiff |
| H | hard |
| Fb | friable |
| VL | very loose |
| L | loose |
| MD | medium dense |
| D | dense |
| VD | very dense |

TETRA TECH COFFEY

# Environmental Log - Borehole

| | |
|---|---|
| Hole ID. | ***BH108*** |
| sheet: | 2 of 2 |
| project no. | ***754-SYDGE295047*** |
| client: | ***St George Illawarra Rugby League Football Club Pty Limited*** |
| principal: | |
| project: | ***St George Illawarra Dragons' Community & High Performance Training Centre*** |
| location: | ***7-9 Squires Way, Fairy Meadow NSW*** |
| date started: | ***26 May 2022*** |
| date completed: | ***26 May 2022*** |
| logged by: | ***WC*** |
| checked by: | ***ML*** |

position: E: 151; N: -34 (Datum Not Specified) | surface elevation: Not Specified | angle from horizontal: 90°

equipment type: Geoprobe, Track mounted | drilling fluid: | hole diameter : 90 mm

**drilling information** | **material substance**

| method & support | water | samples & field tests | photoionization detector (ppmv) | RL (m) | depth (m) | graphic log | soil group symbol | material description (SOIL NAME: plasticity or particle characteristics, colour, secondary and minor components) | moisture condition | consistency / relative density | soil origin, structure and additional observations |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PT N | Not Observed | | | | | | Cl | **CLAY**: low to medium plasticity, brown. *(continued)* | M | | **ALLUVIUM** |
| | | E: BH108_2.0-2.2 | 0 | | 2.0 | | Cl | **CLAY**: low to medium plasticity, pale grey. | | | |
| | | E: BH108_2.8-3.0 | 0 | | 2.5 | | | Borehole BH108 terminated at 3.0 m Target depth | | | |

CDF_0_10_00.3_LIBRARY.GLB rev:CDF_0_10_00.3 2020-08-25 Log COF BOREHOLE: ENVIRONMENTAL ENVIRO.GPJ <<DrawingFile>> 30/06/2022 16:52

**method**
- AD auger drilling*
- HA hand auger
- MR mud rotary
- W washbore
- PT push tube
- HS hollow stem
- SS solid stem
- SD sonic drilling
- * bit shown by suffix e.g. AD/T
- B blank bit
- T TC bit
- V V bit

**support**
- M mud
- C casing
- N nill

**water**
- 10-Oct-12 water level on date shown
- water inflow
- water outflow

**samples & field tests**
- B bulk disturbed sample
- D disturbed sample
- E environmental sample
- SS split spoon sample
- U## undisturbed sample ##mm diameter
- WS water sample
- HB hammer bouncing
- N standard penetration test (SPT)
- N* SPT - sample recovered
- Nc SPT with solid cone
- R refusal

**soil group symbol & material description** based on AS 1726:2017

**moisture condition**
- D dry
- M moist
- W wet

**consistency / relative density**
- VS very soft
- S soft
- F firm
- St stiff
- VSt very stiff
- H hard
- Fb friable
- VL very loose
- L loose
- MD medium dense
- D dense
- VD very dense

TETRA TECH COFFEY

# Environmental Log - Borehole

| | |
|---|---|
| Hole ID. | ***BH109*** |
| sheet: | 1 of 2 |
| project no. | ***754-SYDGE295047*** |
| client: | ***St George Illawarra Rugby League Football Club Pty Limited*** |
| principal: | |
| project: | ***St George Illawarra Dragons' Community & High Performance Training Centre*** |
| location: | ***7-9 Squires Way, Fairy Meadow NSW*** |
| date started: | ***27 May 2022*** |
| date completed: | ***27 May 2022*** |
| logged by: | ***WC*** |
| checked by: | ***ML*** |

position: E: 151; N: -34 (Datum Not Specified) | surface elevation: Not Specified | angle from horizontal: 90°

equipment type: Geoprobe, Track mounted | drilling fluid: | hole diameter : 90 mm

**drilling information** | **material substance**

| method & support | water | samples & field tests | photoionization detector (ppmv) | RL (m) | depth (m) | graphic log | soil group symbol | material description (**SOIL NAME**: plasticity or particle characteristics, colour, secondary and minor components) | moisture condition | consistency / relative density | soil origin, structure and additional observations |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HA | Not Observed | E: BH109_0-0.1 | 0 | | | | Cl | **CLAY**: medium plasticity, brown, with trace sand. | W / M | | **FILL** No visual or olfactory evidence of contamination observed. |
| | | E: BH109_0.5-0.6 | 0 | | 0.5 | | Cl | **CLAY**: medium plasticity, brown. | | | **ALLUVIUM** PID: . |
| | | | | | | | Cl | **SAND**: medium plasticity, grey. | | | |
| PT | | E: BH109_1.0-1.2 | 0 | | 1.0 | | Cl | **CLAY**: medium plasticity, pale grey, mottled red. | | | |

N

**method**
- AD auger drilling*
- HA hand auger
- MR mud rotary
- W washbore
- PT push tube
- HS hollow stem
- SS solid stem
- SD sonic drilling
- * bit shown by suffix e.g. AD/T
- B blank bit
- T TC bit
- V V bit

**support**
- M mud
- C casing
- N nill

**water**
- 10-Oct-12 water level on date shown
- water inflow
- water outflow

**samples & field tests**
- B bulk disturbed sample
- D disturbed sample
- E environmental sample
- SS split spoon sample
- U## undisturbed sample ##mm diameter
- WS water sample
- HB hammer bouncing
- N standard penetration test (SPT)
- N* SPT - sample recovered
- Nc SPT with solid cone
- R refusal

**soil group symbol & material description** based on AS 1726:2017

**moisture condition**
- D dry
- M moist
- W wet

**consistency / relative density**
- VS very soft
- S soft
- F firm
- St stiff
- VSt very stiff
- H hard
- Fb friable
- VL very loose
- L loose
- MD medium dense
- D dense
- VD very dense

TETRA TECH COFFEY

# Environmental Log - Borehole

| | |
|---|---|
| Hole ID. | **BH109** |
| sheet: | 2 of 2 |
| project no. | **754-SYDGE295047** |
| date started: | **27 May 2022** |
| date completed: | **27 May 2022** |
| logged by: | **WC** |
| checked by: | **ML** |

client: ***St George Illawarra Rugby League Football Club Pty Limited***

principal:

project: ***St George Illawarra Dragons' Community & High Performance Training Centre***

location: ***7-9 Squires Way, Fairy Meadow NSW***

position: E: 151; N: -34 (Datum Not Specified) | surface elevation: Not Specified | angle from horizontal: 90°

equipment type: Geoprobe, Track mounted | drilling fluid: | hole diameter : 90 mm

| drilling information | | | | | | material substance | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| method & support | water | samples & field tests | photoionization detector (ppmv) | RL (m) | depth (m) | graphic log | soil group symbol | material description<br>**SOIL NAME**: plasticity or particle characteristics, colour, secondary and minor components | moisture condition | consistency / relative density | soil origin, structure and additional observations |
| PT<br>N | Not Observed | E: BH109_2.0-2.2 | 0 | | 2.0 | | CI | **CLAY**: medium plasticity, pale grey, mottled red. *(continued)* | M | | **ALLUVIUM** |
| | | E: BH109_2.8-3.0 | 0 | | 2.5 | | | Borehole BH109 terminated at 3.0 m<br>Target depth | | | |

**method**
- AD auger drilling*
- HA hand auger
- MR mud rotary
- W washbore
- PT push tube
- HS hollow stem
- SS solid stem
- SD sonic drilling
- * bit shown by suffix
- e.g. AD/T
- B blank bit
- T TC bit
- V V bit

**support**
- M mud
- C casing
- N nill

**water**
- 10-Oct-12 water level on date shown
- water inflow
- water outflow

**samples & field tests**
- B bulk disturbed sample
- D disturbed sample
- E environmental sample
- SS split spoon sample
- U## undisturbed sample ##mm diameter
- WS water sample
- HB hammer bouncing
- N standard penetration test (SPT)
- N* SPT - sample recovered
- Nc SPT with solid cone
- R refusal

**soil group symbol & material description**
based on AS 1726:2017

**moisture condition**
- D dry
- M moist
- W wet

**consistency / relative density**
- VS very soft
- S soft
- F firm
- St stiff
- VSt very stiff
- H hard
- Fb friable
- VL very loose
- L loose
- MD medium dense
- D dense
- VD very dense

# APPENDIX E: LABORATORY RESULTS

TETRA TECH COFFEY

Table 1 - Soil Analytical Results
St George Illawarra CHPC
Detailed Site Investigation

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Field ID | | BH101_0-0.1 | BH101_1.0-1.2 | BH101_2.4-2.6 | BH105_0-0.1 | BH105_1.0-1.2 | BH105_2.0-2.2 | BH106_0-0.1 | BH106_1.0-1.2 | BH106_2.8-3.0 | BH107_0-0.1 | BH107_0.9-1.0 | BH107_2.8-3.0 |
| | Depth | | 0 - 0.1 | 1 - 1.2 | 2.4 - 2.6 | 0 - 0.1 | 1 - 1.2 | 2 - 2.2 | 0 - 0.1 | 1 - 1.2 | 2.8 - 3 | 0 - 0.1 | 0.9 - 1 | 2.8 - 3 |
| | Date | | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 |
| | Unit | NSW 2014 General Solid Waste CT1 (No Leaching) | NSW 2014 Restricted Solid Waste CT2 (No Leaching) | | | | | | | | | | | |
| Asbestos | | | | | | | | | | | | | | |
| Asbestos | g | | | - | - | - | - | - | - | - | - | - | - | - |
| Metals | | | | | | | | | | | | | | |
| Arsenic | mg/kg | 100 | 400 | 8.8 | 6.0 | <2 | 5.5 | 6.9 | 2.9 | 4.3 | <2 | <2 | 6.7 | 12 | 19 |
| Cadmium | mg/kg | 20 | 80 | 1.5 | 1.1 | 0.7 | 0.8 | 0.7 | 0.5 | 0.5 | 0.5 | <0.4 | 0.6 | <0.4 | <0.4 |
| Chromium (III+VI) | mg/kg | | | 26 | 30 | 17 | 17 | 33 | 31 | 18 | 26 | 17 | 24 | 41 | 57 |
| Copper | mg/kg | | | 32 | 55 | 12 | 18 | 27 | 17 | 24 | 13 | 7.1 | 32 | 34 | 19 |
| Lead | mg/kg | 100 | 400 | 55 | 29 | 9.1 | 31 | 14 | 13 | 35 | 13 | 5.2 | 34 | 21 | 14 |
| Mercury | mg/kg | 4 | 16 | 0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Nickel | mg/kg | 40 | 160 | 25 | 6.0 | 6.6 | 15 | 8.7 | 11 | 17 | 7.6 | <5 | 31 | 8.2 | 7.0 |
| Zinc | mg/kg | | | 100 | 23 | 9.0 | 76 | 19 | 15 | 63 | 16 | 6.2 | 62 | 21 | 15 |
| BTEX | | | | | | | | | | | | | | |
| Benzene | mg/kg | 10 | 40 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Toluene | mg/kg | 288 | 1,152 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Ethylbenzene | mg/kg | 600 | 2,400 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Xylene (o) | mg/kg | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Xylene (m & p) | mg/kg | | | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Xylene Total | mg/kg | 1,000 | 4,000 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 |
| Total Petroleum Hydrocarbons | | | | | | | | | | | | | | |
| TRH C6-C9 | | | | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 |
| TRH C10-C36 (Total) | | | | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | 60 | < 50 | < 50 | 156 | < 50 | < 50 |
| Total Recoverable Hydrocarbons | | | | | | | | | | | | | | |
| F1 (C6 - C10) | mg/kg | | | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| F1 (C6 - C10) less BTEX | mg/kg | | | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| F2 (C10 - C16) | mg/kg | | | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| F2 C10 - C16 (minus Naphthalene) | mg/kg | | | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| F3 (C16 - C34) | mg/kg | | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | 140 | <100 | <100 |
| F4 (C34 - C40) | mg/kg | | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 |
| C10 - C40 (Sum of total) | mg/kg | | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | 140 | <100 | <100 |
| Polycyclic Aromatic Hydrocarbons | | | | | | | | | | | | | | |
| PAHs (Sum of total) | mg/kg | 200 | 800 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Organochlorine Pesticides | | | | | | | | | | | | | | |
| All OCPs | mg/kg | | | <LOR | - | - | <LOR | - | - | <LOR | - | - | <LOR | - | - |
| Organophosphorous Pesticides | | | | | | | | | | | | | | |
| All OPPs | mg/kg | | | <LOR | - | - | <LOR | - | - | <LOR | - | - | <LOR | - | - |
| PCBs | | | | | | | | | | | | | | |
| PCBs (Sum of total) | mg/kg | 50 | 50 | <0.1 | - | - | <0.1 | - | - | <0.1 | - | - | <0.1 | - | - |

Environmental Standards

| | |
|---|---|
| Result | exceeds NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching) |
| Result | exceeds NSW EPA, November 2014, NSW 2014 Restricted Solid Waste CT2 (No Leaching) |
| - | Not tested |
| <LOR | Below laboratory limit of reporting |

TETRA TECH COFFEY

Table 1 - Soil Analytical Results
St George Illawarra CHPC
Detailed Site Investigation

| | Unit | NSW 2014 General Solid Waste CT1 (No Leaching) | NSW 2014 Restricted Solid Waste CT2 (No Leaching) | Field ID | BH108_0-0.1 | BH108_1.0-1.2 | BH108_2.8-3.0 | BH109_0-0.1 | BH109_1.0-1.2 | BH109_2.8-3.0 | BH1010_0.5-0.6 | BH1010_0.5-0.6 | BH1011_0-0.1 | BH1011_1.0-1.2 | BH1011_2.8-3.0 | BH1013_0-0.1 | BH1013_1.0-1.2 | BH1013_2.8-3.0 | BH1014_0-0.1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Depth | 0 - 0.1 | 1 - 1.2 | 2.8 - 3 | 0 - 0.1 | 1 - 1.2 | 2.8 - 3 | 0 - 0.1 | 0.5 - 0.6 | 0 - 0.1 | 1 - 1.2 | 2.8 - 3 | 0 - 0.1 | 1 - 1.2 | 2.8 - 3 | 0 - 0.1 |
| | | | | Date | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 |
| Asbestos | | | | | | | | | | | | | | | | | | | |
| Asbestos | g | | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Metals | | | | | | | | | | | | | | | | | | | |
| Arsenic | mg/kg | 100 | 400 | | 5.9 | <2 | 4.4 | 3.8 | 8.6 | 4.9 | 4.3 | 3.9 | 3.7 | 3.0 | 6.6 | 4.4 | 11 | <2 | 5.6 |
| Cadmium | mg/kg | 20 | 80 | | 0.5 | <0.4 | <0.4 | <0.4 | <0.4 | <0.4 | <0.4 | <0.4 | <0.4 | <0.4 | <0.4 | <0.4 | <0.4 | <0.4 | <0.4 |
| Chromium (III+VI) | mg/kg | | | | 18 | 23 | 20 | 15 | 40 | 36 | 17 | 27 | 12 | 24 | 28 | 12 | 30 | 38 | 15 |
| Copper | mg/kg | | | | 25 | 10 | 16 | 15 | 29 | 16 | 19 | 17 | 16 | 16 | 26 | 12 | 27 | 22 | 20 |
| Lead | mg/kg | 100 | 400 | | 30 | 11 | 11 | 17 | 14 | 12 | 28 | 11 | 23 | 10 | 15 | 19 | 12 | 18 | 95 |
| Mercury | mg/kg | 4 | 16 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.2 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Nickel | mg/kg | 40 | 160 | | 15 | 6.4 | <5 | 11 | 6.5 | 5.4 | 17 | 7.0 | 8.5 | 8.9 | 14 | 9.8 | 6.7 | 14 | 8.8 |
| Zinc | mg/kg | | | | 86 | 15 | 12 | 45 | 18 | 13 | 75 | 15 | 61 | 18 | 30 | 56 | 20 | 21 | 280 |
| BTEX | | | | | | | | | | | | | | | | | | | |
| Benzene | mg/kg | 10 | 40 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Toluene | mg/kg | 288 | 1,152 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Ethylbenzene | mg/kg | 600 | 2,400 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Xylene (o) | mg/kg | | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Xylene (m & p) | mg/kg | | | | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| Xylene Total | mg/kg | 1,000 | 4,000 | | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 |
| Total Petroleum Hydrocarbons | | | | | | | | | | | | | | | | | | | |
| TRH C6-C9 | | | | | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 |
| TRH C10-C36 (Total) | | | | | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | 153 | 59 | 180 | < 50 | < 50 | 205 | < 50 | < 50 | 150 |
| Total Recoverable Hydrocarbons | | | | | | | | | | | | | | | | | | | |
| F1 (C6 - C10) | mg/kg | | | | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| F1 (C6 - C10) less BTEX | mg/kg | | | | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| F2 (C10 - C16) | mg/kg | | | | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| F2 C10 - C16 (minus Naphthalene) | mg/kg | | | | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| F3 (C16 - C34) | mg/kg | | | | <100 | <100 | <100 | <100 | <100 | <100 | 100 | <100 | 140 | <100 | <100 | 140 | <100 | <100 | 120 |
| F4 (C34 - C40) | mg/kg | | | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 |
| C10 - C40 (Sum of total) | mg/kg | | | | <100 | <100 | <100 | <100 | <100 | <100 | 100 | <100 | 140 | <100 | <100 | 140 | <100 | <100 | 120 |
| Polycyclic Aromatic Hydrocarbons | | | | | | | | | | | | | | | | | | | |
| PAHs (Sum of total) | mg/kg | 200 | 800 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Organochlorine Pesticides | | | | | | | | | | | | | | | | | | | |
| All OCPs | mg/kg | | | | <LOR | - | - | <LOR | - | - | <LOR | - | <LOR | - | - | - | - | - | <LOR |
| Organophosphorous Pesticides | | | | | | | | | | | | | | | | | | | |
| All OPPs | mg/kg | | | | <LOR | - | - | <LOR | - | - | <LOR | - | <LOR | - | - | - | - | - | <LOR |
| PCBs | | | | | | | | | | | | | | | | | | | |
| PCBs (Sum of total) | mg/kg | 50 | 50 | | <0.1 | - | - | <0.1 | - | - | <0.1 | - | <0.1 | - | - | - | - | - | <0.1 |

Environmental Standards

| | |
|---|---|
| Result | exceeds NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching) |
| Result | exceeds NSW EPA, November 2014, NSW 2014 Restricted Solid Waste CT2 (No Leaching) |
| - | Not tested |
| <LOR | Below laboratory limit of reporting |

TETRA TECH COFFEY

Table 1 - Soil Analytical Results
St George Illawarra CHPC
Detailed Site Investigation

| | Unit | NSW 2014 General Solid Waste CT1 (No Leaching) | NSW 2014 Restricted Solid Waste CT2 (No Leaching) | Field ID | BH1014_0.8-0.9 | BH1015_0-0.1 | BH1015_0.5-0.6 | CPT1_0.1-0.2 | CPT1_1.1-1.2 | CPT2_0.4-0.5 | CPT3_0.1-0.2 | CPT4_0.1-0.2 | CPT5_0.1-0.2 | CPT6_0.1-0.2 | CPT7_0.1-0.2 | CPT9_0.1-0.2 | CPT11_0.1-0.2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Depth | 0.8 - 0.9 | 0 - 0.1 | 0.5 - 0.6 | 0.1 - 0.2 | 1.1 - 1.2 | 0.4 - 0.5 | 0.1 - 0.2 | 0.1 - 0.2 | 0.1 - 0.2 | 0.1 - 0.2 | 0.1 - 0.2 | 0.1 - 0.2 | 0.1-0.2 |
| | | | | Date | 5/26/2022 | 5/26/2022 | 5/26/2022 | 12/8/2021 | 12/8/2021 | 12/8/2021 | 12/8/2021 | 12/9/2021 | 12/8/2021 | 12/8/2021 | 12/8/2021 | 12/9/2021 | 12/9/2021 |
| Asbestos | | | | | | | | | | | | | | | | | |
| Asbestos | g | | | | - | - | - | Not Detected | - | - | Not Detected | - | Not Detected | Not Detected | Not Detected | - | Not Detected |
| Metals | | | | | | | | | | | | | | | | | |
| Arsenic | mg/kg | 100 | 400 | | 5.4 | 6.1 | 4.5 | 5.2 | <2 | 6.8 | 5.8 | 3.9 | 3.5 | 8.9 | 8.6 | 3.6 | 15 |
| Cadmium | mg/kg | 20 | 80 | | <0.4 | <0.4 | <0.4 | <0.4 | <0.4 | <0.4 | <0.4 | <0.4 | <0.4 | <0.4 | <0.4 | <0.4 | < 0.4 |
| Chromium (III+VI) | mg/kg | | | | 14 | 20 | 25 | 28 | 17 | 32 | 27 | 13 | 19 | 27 | 31 | 19 | 23 |
| Copper | mg/kg | | | | 17 | 26 | 19 | 25 | 8.2 | 19 | 21 | 77 | 7.8 | 66 | 29 | 15 | 26 |
| Lead | mg/kg | 100 | 400 | | 56 | 31 | 16 | 27 | 7.8 | 11 | 24 | 61 | 11 | 35 | 46 | 8.4 | 68 |
| Mercury | mg/kg | 4 | 16 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | < 0.1 |
| Nickel | mg/kg | 40 | 160 | | 8.4 | 28 | 33 | 13 | 6.3 | 7.7 | 19 | 7.5 | 8.4 | 25 | 31 | 6.0 | 24 |
| Zinc | mg/kg | | | | 200 | 73 | 38 | 100 | 12 | 20 | 54 | 75 | 13 | 96 | 64 | 15 | 120 |
| BTEX | | | | | | | | | | | | | | | | | |
| Benzene | mg/kg | 10 | 40 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Toluene | mg/kg | 288 | 1,152 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Ethylbenzene | mg/kg | 600 | 2,400 | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Xylene (o) | mg/kg | | | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Xylene (m & p) | mg/kg | | | | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | 0.3 |
| Xylene Total | mg/kg | 1,000 | 4,000 | | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | 0.3 |
| Total Petroleum Hydrocarbons | | | | | | | | | | | | | | | | | |
| TRH C6-C9 | | | | | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 | < 20 |
| TRH C10-C36 (Total) | | | | | < 50 | 127 | 92 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | < 50 | 142 |
| Total Recoverable Hydrocarbons | | | | | | | | | | | | | | | | | |
| F1 (C6 - C10) | mg/kg | | | | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| F1 (C6 - C10) less BTEX | mg/kg | | | | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 |
| F2 (C10 - C16) | mg/kg | | | | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| F2 C10 - C16 (minus Naphthalene) | mg/kg | | | | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| F3 (C16 - C34) | mg/kg | | | | <100 | 100 | 110 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | 120 |
| F4 (C34 - C40) | mg/kg | | | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 |
| C10 - C40 (Sum of total) | mg/kg | | | | <100 | 100 | 110 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | 142 |
| Polycyclic Aromatic Hydrocarbons | | | | | | | | | | | | | | | | | |
| PAHs (Sum of total) | mg/kg | 200 | 800 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Organochlorine Pesticides | | | | | | | | | | | | | | | | | |
| All OCPs | mg/kg | | | | - | <LOR | - | <LOR | - | <LOR | <LOR | - | - | - | - | - | <LOR |
| Organophosphorous Pesticides | | | | | | | | | | | | | | | | | |
| All OPPs | mg/kg | | | | - | <LOR | - | <LOR | - | <LOR | <LOR | - | - | - | - | - | <LOR |
| PCBs | | | | | | | | | | | | | | | | | |
| PCBs (Sum of total) | mg/kg | 50 | 50 | | - | <0.1 | - | <0.1 | - | <0.1 | <0.1 | - | - | - | - | - | <0.1 |

Environmental Standards

| | |
|---|---|
| Result | exceeds NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching) |
| Result | exceeds NSW EPA, November 2014, NSW 2014 Restricted Solid Waste CT2 (No Leaching) |
| - | Not tested |
| <LOR | Below laboratory limit of reporting |

TETRA TECH COFFEY

Table 2 - Acid Sulfate Soils Analytical Results
St George Illawarra CHPC
Detailed Site Investigation

SYDGE295047

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Field ID | BH101_1.0-1.2 | BH101_2.4-2.6 | BH105_1.0-1.2 | BH105_2.0-2.2 | BH106_1.0-1.2 | BH106_2.8-3.0 | BH107_0.9-1.0 | BH107_2.8-3.0 | BH108_1.0-1.2 | BH108_2.8-3.0 |
| | | | | | Depth | 1 - 1.2 | 2.4 - 2.6 | 1 - 1.2 | 2 - 2.2 | 1 - 1.2 | 2.8 - 3 | 0.9 - 1 | 2.8 - 3 | 1 - 1.2 | 2.8 - 3 |
| | | | | | Date | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 |
| | Unit | ASSMAC Field Screening | ASSMAC Action Criteria if more than 1,000 tonnes disturbed - Sulfur Trail %S (Coarse Texture) | ASSMAC Action Criteria if more than 1,000 tonnes disturbed - Acid Trail %S (Coarse Texture) | | | | | | | | | | | |
| Physical Parameters | | | | | | | | | | | | | | | |
| pH (F) | Units | <4 | | | 4.8 | 5.5 | 4.8 | 4.7 | 4.9 | 5.6 | 5.1 | 5.2 | 5.1 | 5.1 |
| Ions | | | | | | | | | | | | | | | |
| Magnesium in Peroxide | % | | | | 0.090 | - | 0.090 | - | 0.090 | 0.070 | 0.12 | - | 0.080 | 0.090 |
| NA | | | | | | | | | | | | | | | |
| Field pH of Peroxide extract | Units | | | | 3.6 | 5.0 | 3.7 | 4.1 | 3.9 | 4.6 | 3.7 | 4.5 | 3.9 | 4.4 |
| Net Acid Soluble Sulfur (in acid units) | mole H+/t | | | | 21 | - | 39 | - | <10 | - | 11 | - | <10 | - |
| Net Acid Soluble Sulfur (in sulfur units) | %S | | | | 0.03 | - | 0.06 | - | <0.02 | - | <0.02 | - | <0.02 | - |
| Particle Size | | | | | | | | | | | | | | | |
| <2mm Fraction | G | | | | 37 | - | 13 | - | 29 | 31 | 13 | - | 23 | 28 |
| >2mm Fraction | G | | | | <0.005 | - | 6.8 | - | 4.8 | <0.005 | 10.0 | - | <0.005 | <0.005 |
| Inorganics | | | | | | | | | | | | | | | |
| Conductivity (1:5 aqueous extract) | uS/cm | | | | | - | - | - | - | - | - | - | - | - |
| Extraneous Material | % | | | | <0.1 | - | 34 | - | 14 | <0.1 | 44 | - | <0.1 | <0.1 |
| Analysed Material | % | | | | 100 | - | 66 | - | 86 | 100 | 56 | - | 100 | 100 |
| TOC | mg/kg | | | | | - | - | - | - | - | - | - | - | - |
| SPOCAS | | | | | | | | | | | | | | | |
| Acid Reacted Calcium | % | | | | <0.005 | - | <0.005 | - | <0.005 | <0.005 | <0.005 | - | <0.005 | <0.005 |
| Acid Reacted Magnesium | % | | | | 0.010 | - | 0.005 | - | <0.005 | 0.006 | 0.010 | - | <0.005 | 0.011 |
| acidity - Acid Reacted Calcium | mole H+/t | | | | <0.005 | - | <0.005 | - | <0.005 | <0.005 | <0.005 | - | <0.005 | <0.005 |
| acidity - Acid Reacted Magnesium | mole H+/t | | | | 8.3 | - | 4.3 | - | <0.005 | 5.1 | 8.4 | - | <0.005 | 8.7 |
| acidity - Peroxide Oxidisable Sulfur | mole H+/t | | | | 19 | - | 62 | - | <10 | <10 | 11 | - | <10 | <10 |
| ANC Fineness Factor | - | | | | 1.5 | - | 1.5 | - | 1.5 | 1.5 | 1.5 | - | 1.5 | 1.5 |
| Calcium in Peroxide | % | | | | 0.050 | - | 0.15 | - | 0.040 | 0.040 | 0.040 | - | 0.070 | 0.040 |
| KCl Extractable Calcium | % | | | | 0.040 | - | 0.15 | - | 0.030 | 0.040 | 0.040 | - | 0.070 | 0.040 |
| KCl Extractable Magnesium | % | | | | 0.080 | - | 0.080 | - | 0.080 | 0.060 | 0.11 | - | 0.070 | 0.080 |
| KCl Extractable Sulfur | % | | | | 0.060 | - | 0.050 | - | 0.020 | 0.010 | 0.040 | - | 0.020 | 0.040 |
| Liming Rate | kg CaCO3/t | | | | 9.0 | - | 15 | - | 7.0 | 1.0 | 11 | - | 6.0 | 3.0 |
| Net Acidity (acidity units) | mole H+/t | | | | 110 | - | 200 | - | 92 | 16 | 150 | - | 76 | 42 |
| Net Acidity (sulfur units) | %S | | | | 0.18 | - | 0.31 | - | 0.15 | 0.03 | 0.25 | - | 0.12 | 0.07 |
| HCl Extractable Sulfur | %S | | | | 0.080 | - | 0.090 | - | 0.030 | - | 0.050 | - | 0.030 | - |
| HCl Extractable Sulfur Correction Factor | FACTOR | | | | 2.0 | - | 2.0 | - | 2.0 | 2.0 | 2.0 | - | 2.0 | 2.0 |
| Peroxide Oxidisable Sulfur | % | | | | 0.03 | - | 0.10 | - | <0.02 | <0.02 | <0.02 | - | <0.02 | <0.02 |
| pH (KCl) | - | | | | 4.4 | - | 4.4 | - | 4.4 | 4.9 | 4.3 | - | 4.4 | 4.6 |
| pH (Ox) | - | <3.5 | | | 4.1 | - | 3.9 | - | 4.4 | 5.3 | 4.4 | - | 4.5 | 4.9 |
| sulfidic - Acid Reacted Calcium | % S | | | | <0.005 | - | <0.005 | - | <0.005 | <0.005 | <0.005 | - | <0.005 | <0.005 |
| sulfidic - Acid Reacted Magnesium | %S | | | | 0.013 | - | 0.007 | - | <0.005 | 0.008 | 0.014 | - | <0.005 | 0.014 |
| sulfidic - Titratable Actual Acidity | %S | | | | 0.12 | - | 0.15 | - | 0.13 | 0.020 | 0.21 | - | 0.11 | 0.060 |
| sulfidic - Titratable Peroxide Acidity | %S | | | | 0.18 | - | 0.29 | - | 0.15 | 0.02 | 0.25 | - | 0.12 | 0.07 |
| sulfidic - Titratable Sulfidic Acidity | %S | | | | 0.06 | - | 0.14 | - | 0.02 | <0.02 | 0.04 | - | 0.02 | <0.02 |
| Sulfur in Peroxide | % | | | | 0.090 | - | 0.15 | - | 0.040 | 0.010 | 0.060 | - | 0.030 | 0.050 |
| Titratable Actual Acidity | mole H+/t | | | 18 | 74 | - | 95 | - | 80 | 12 | 130 | - | 67 | 36 |
| Titratable Peroxide Acidity | mole H+/t | | | | 110 | - | 180 | - | 93 | 12 | 160 | - | 78 | 43 |
| Titratable Sulfidic Acidity | mole H+/t | | | | 36 | - | 88 | - | 12 | <2 | 27 | - | 10 | <2 |

| | |
|---|---|
| **Result** | exceeds ASSMAC 1998 Field Screening Criteria |
| **Result** | exceeds ASSMAC 1998 Acid Sulfate SoilsAssessment Guidelines |
| **Result** | exceeds ASSMAC 1998 Acid Sulfate SoilsAssessment Guidelines |

- Not tested

Table 2 - Acid Sulfate Soils Analytical Results
St George Illawarra CHPC
Detailed Site Investigation

SYDGE295047

TETRA TECH COFFEY

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Field ID | | | | | BH109_1.0-1.2 | BH109_2.8-3.0 | BH1011_1.0-1.2 | BH1011_2.8-3.0 | BH1013_1.0-1.2 | BH1013_2.8-3.0 | BH1014_0.8-0.9 | BH1015_0.5-0.6 |
| Depth | | | | | 1 - 1.2 | 2.8 - 3 | 1 - 1.2 | 2.8 - 3 | 1 - 1.2 | 2.8 - 3 | 0.8 - 0.9 | 0.5 - 0.6 |
| Date | | | | | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 | 5/26/2022 |
| | Unit | ASSMAC Field Screening | ASSMAC Action Criteria if more than 1,000 tonnes disturbed - Sulfur Trail %S (Coarse Texture) | ASSMAC Action Criteria if more than 1,000 tonnes disturbed - Acid Trail %S (Coarse Texture) | | | | | | | | |
| Physical Parameters | | | | | | | | | | | | |
| pH (F) | Units | <4 | | | 4.5 | 4.7 | 5.3 | 5.2 | 4.8 | 5.3 | 5.1 | 5.2 |
| Ions | | | | | | | | | | | | |
| Magnesium in Peroxide | % | | | | 0.070 | - | 0.050 | - | - | - | - | 0.050 |
| NA | | | | | | | | | | | | |
| Field pH of Peroxide extract | Units | | | | 3.3 | 4.0 | 3.9 | 4.3 | 3.5 | 4.0 | 3.9 | 3.4 |
| Net Acid Soluble Sulfur (in acid units) | mole H+/t | | | | 21 | - | <10 | - | - | - | - | <10 |
| Net Acid Soluble Sulfur (in sulfur units) | %S | | | | 0.03 | - | <0.02 | - | - | - | - | <0.02 |
| Particle Size | | | | | | | | | | | | |
| <2mm Fraction | G | | | | 23 | - | 29 | - | - | - | - | 23 |
| >2mm Fraction | G | | | | 1.3 | - | <0.005 | - | - | - | - | 1.0 |
| Inorganics | | | | | | | | | | | | |
| Conductivity (1:5 aqueous extract) | uS/cm | | | | - | - | - | - | - | - | - | - |
| Extraneous Material | % | | | | 5.4 | - | <0.1 | - | - | - | - | 4.2 |
| Analysed Material | % | | | | 95 | - | 100 | - | - | - | - | 96 |
| TOC | mg/kg | | | | - | - | - | - | - | - | - | - |
| SPOCAS | | | | | | | | | | | | |
| Acid Reacted Calcium | % | | | | <0.005 | - | <0.005 | - | - | - | - | <0.005 |
| Acid Reacted Magnesium | % | | | | 0.008 | - | 0.005 | - | - | - | - | <0.005 |
| acidity - Acid Reacted Calcium | mole H+/t | | | | <0.005 | - | <0.005 | - | - | - | - | <0.005 |
| acidity - Acid Reacted Magnesium | mole H+/t | | | | 6.7 | - | 4.4 | - | - | - | - | <0.005 |
| acidity - Peroxide Oxidisable Sulfur | mole H+/t | | | | 22 | - | 12 | - | - | - | - | 16 |
| ANC Fineness Factor | - | | | | 1.5 | - | 1.5 | - | - | - | - | 1.5 |
| Calcium in Peroxide | % | | | | 0.040 | - | 0.060 | - | - | - | - | 0.060 |
| KCl Extractable Calcium | % | | | | 0.040 | - | 0.050 | - | - | - | - | 0.050 |
| KCl Extractable Magnesium | % | | | | 0.060 | - | 0.050 | - | - | - | - | 0.040 |
| KCl Extractable Sulfur | % | | | | 0.070 | - | 0.040 | - | - | - | - | 0.020 |
| Liming Rate | kg CaCO3/t | | | | 13 | - | 8.0 | - | - | - | - | 8.0 |
| Net Acidity (acidity units) | mole H+/t | | | | 180 | - | 110 | - | - | - | - | 100 |
| Net Acidity (sulfur units) | %S | | | | 0.29 | - | 0.17 | - | - | - | - | 0.17 |
| HCl Extractable Sulfur | %S | | | | 0.10 | - | 0.050 | - | - | - | - | 0.030 |
| HCl Extractable Sulfur Correction Factor | FACTOR | | | | 2.0 | - | 2.0 | - | - | - | - | 2.0 |
| Peroxide Oxidisable Sulfur | % | | | | 0.04 | - | <0.02 | - | - | - | - | 0.03 |
| pH (KCl) | - | | | | 4.2 | - | 4.2 | - | - | - | - | 4.4 |
| pH (Ox) | - | <3.5 | | | 4.0 | - | 4.2 | - | - | - | - | 3.8 |
| sulfidic - Acid Reacted Calcium | % S | | | | <0.005 | - | <0.005 | - | - | - | - | <0.005 |
| sulfidic - Acid Reacted Magnesium | %S | | | | 0.011 | - | 0.007 | - | - | - | - | <0.005 |
| sulfidic - Titratable Actual Acidity | %S | | | | 0.22 | - | 0.15 | - | - | - | - | 0.13 |
| sulfidic - Titratable Peroxide Acidity | %S | | | | 0.28 | - | 0.20 | - | - | - | - | 0.25 |
| sulfidic - Titratable Sulfidic Acidity | %S | | | | 0.07 | - | 0.05 | - | - | - | - | 0.12 |
| Sulfur in Peroxide | % | | | | 0.11 | - | 0.060 | - | - | - | - | 0.050 |
| Titratable Actual Acidity | mole H+/t | | | 18 | 140 | - | 91 | - | - | - | - | 81 |
| Titratable Peroxide Acidity | mole H+/t | | | | 180 | - | 120 | - | - | - | - | 150 |
| Titratable Sulfidic Acidity | mole H+/t | | | | 41 | - | 33 | - | - | - | - | 73 |

| | |
|---|---|
| **Result** | exceeds ASSMAC 1998 Field Screening Criteria |
| **Result** | exceeds ASSMAC 1998 Acid Sulfate SoilsAssessment Guidelines |
| **Result** | exceeds ASSMAC 1998 Acid Sulfate SoilsAssessment Guidelines |

- Not tested

# APPENDIX F: LABORATORY CERTIFICATES

eurofins | Environment Testing

www.eurofins.com.au EnviroSales@eurofins.com

**Eurofins Environment Testing Australia Pty Ltd**
ABN: 50 005 085 521

**Melbourne**
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

**Sydney**
179 Magowar Road
Girraween NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

**Newcastle**
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

**Eurofins ARL Pty Ltd**
ABN: 91 05 0159 898

**Perth**
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

**Eurofins Environment Testing NZ Limited**
NZBN: 9429046024954

**Auckland**
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

**Christchurch**
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

# Sample Receipt Advice

| | |
|---|---|
| **Company name:** | Coffey Environments Pty Ltd NSW |
| **Contact name:** | Matthew Locke |
| **Project name:** | DRAGONS |
| **Project ID:** | SYDGE295047 |
| **Turnaround time:** | 1 Day |
| **Date/Time received** | Jun 1, 2022 12:47 PM |
| **Eurofins reference** | 893864 |

## Sample Information

| | |
|---|---|
| ✓ | A detailed list of analytes logged into our LIMS, is included in the attached summary table. |
| ✓ | Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : 6.9 degrees Celsius. |
| ✓ | All samples have been received as described on the above COC. |
| ✓ | COC has been completed correctly. |
| ✓ | Attempt to chill was evident. |
| ✓ | Appropriately preserved sample containers have been used. |
| ✓ | All samples were received in good condition. |
| ✓ | Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times. |
| ✓ | Appropriate sample containers have been used. |
| ✓ | Sample containers for volatile analysis received with zero headspace. |
| ✓ | Split sample sent to requested external lab. |
| ✗ | Some samples have been subcontracted. |
| N/A | Custody Seals intact (if used). |

## Notes

QA1A to be packed for ALS. Bags were not provided for QA02 AND QA02A.

## Contact

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

**Asim Khan on phone : or by email: AsimKhan@eurofins.com**

Results will be delivered electronically via email to Matthew Locke - Matthew.Locke@coffey.com.

*Note: A copy of these results will also be delivered to the general Coffey Environments Pty Ltd NSW email address.*

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST



TETRA TECH COFFEY

| | | | | | |
|---|---|---|---|---|---|
| Consigning Office: | Sydney | | | | |
| Report Results to: | Matthew Locke | Mobile: | +61427202493 | Email: | Matthew.Locke@tetratech.com |
| Invoices to: | | Phone: | | Email: | |

| | | | |
|---|---|---|---|
| Project No: | SYDGE295047 | Task No: | Fieldwork |
| Project Name: | Dragons | Laboratory: | Eurofins |
| Sampler's Name: | Wendy Cadelago | Project Manager: | Matthew Locke |

Quote number (If different to current quoted prices):

Special Instructions:

| Lab Batch Ref | Sample ID | Sample Date | Time | Matrix (Soil...etc) | Container Type & Preservative* | T-A-T (specify) | Analysis Request Section: Suite M8 (Metals 8) | Suite B4 (TRH/PAH/BTEX) | Suite B15 (OCP/OPP/PCB) | ASS Screening (pH F / pH FOX) | SPOCAS | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | BH101_0-0.1 | 26/5/22 | - | soil | jar, ASS bag | std | X | X | X | | | |
| | BH101_0.5-0.6 | 26/5/22 | - | soil | jar, ASS bag | std | | | | | | |
| | BH101_1.0-1.2 | 26/5/22 | - | soil | jar, ASS bag | std | X | X | | X | | |
| | BH101_2.0-2.2 | 26/5/22 | - | soil | jar, ASS bag | std | | | | | | |
| | BH101_2.4-2.6 | 26/5/22 | - | soil | jar, ASS bag | std | X | X | | X | | |
| | BH105_0-0.1 | 27/5/22 | - | soil | jar, ASS bag | std | X | X | X | | | |
| | BH105_0.5-0.6 | 27/5/22 | - | soil | jar, ASS bag | std | | | | | | |
| | BH105_1.0-1.2 | 27/5/22 | - | soil | jar, ASS bag | std | X | X | | X | | |
| | BH105_2.0-2.2 | 27/5/22 | - | soil | jar, ASS bag | std | X | X | | X | | |
| | BH105_2.5-2.7 | 27/5/22 | - | soil | jar, ASS bag | std | | | | | | |
| | BH106_0-0.1 | 26/5/22 | - | soil | jar, ASS bag | std | X | X | X | | | |
| | BH106_0.5-0.6 | 26/5/22 | - | soil | jar, ASS bag | std | | | | | | |
| | BH106_1.0-1.2 | 26/5/22 | - | soil | jar, ASS bag | std | X | X | | X | | |
| | BH106_2.0-2.2 | 26/5/22 | - | soil | jar, ASS bag | std | | | | | | |
| | BH106_2.8-3.0 | 26/5/22 | - | soil | jar, ASS bag | std | X | X | | X | | |
| | BH107_0-0.1 | 26/5/22 | - | soil | jar, ASS bag | std | X | X | X | | | |

| RELINQUISHED BY | | | RECEIVED BY | | |
|---|---|---|---|---|---|
| Name: Wendy Cadelago | Date: 27/5/22 | | Name: | Date: | |
| Coffey | Time: | | Company: | Time: | |
| Name: | Date: | → | Name: | Date: | |
| Company: | Time: | | Company: | Time: | |

**Container Type & Preservation Codes:** P - Plastic, G- Glass Bottle, J - Glass Jar, V- Vial, Z - Ziplock bag, N - Nitric Acid Preserved, C - Hydrochloric Acid Preserved, S - Sulphuric Acid Preserved, I - Ice, ST - Sodium Thiosulfate, NP - No Preservative

**Sample Receipt Advice: (Lab Use Only)**

- All Samples Recieved in Good Condition ☐
- All Documentation is in Proper Order ☐
- Samples Received Properly Chilled ☐
- Lab. Ref/Batch No.

GiL Syd 6-9°C

1/6/22 12:47pm

893864

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST



TETRA TECH COFFEY

Consigning Office: Sydney

Report Results to: Matthew Locke Mobile: +61427202493 Email: Matthew.Locke@tetratech.com

Invoices to: Phone: Email:

Project No: SYDGE295047 Task No: Fieldwork

Project Name: Dragons Laboratory: Eurofins

Sampler's Name: Wendy Cadelago Project Manager: Matthew Locke

Quote number (if different to current quoted prices):

Special Instructions:

| Lab Batch Ref | Sample ID | Sample Date | Time | Matrix (Soil...etc) | Container Type & Preservative* | T-A-T (specify) | Analysis Request Section: Suite M8 (Metals 8) | Suite B4 (TRH/PAH/BTEX) | Suite B15 (OCP/OPP/PCB) | ASS Screening (pH F / pH FOX) | SPOCAS | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | BH107_0.5-0.6 | 26/5/22 | - | soil | jar, ASS bag | std | | | | | | |
| | BH107_0.9-1.0 | 26/5/22 | - | soil | jar, ASS bag | std | X | X | | X | | |
| | BH107_2.0-2.2 | 26/5/22 | - | soil | jar, ASS bag | std | | | | | | |
| | BH107_2.8-3.0 | 26/5/22 | - | soil | jar, ASS bag | std | X | X | | X | | |
| | BH108_0-0.1 | 26/5/22 | - | soil | jar, ASS bag | std | X | X | X | | | |
| | BH108_0.5-0.6 | 26/5/22 | - | soil | jar, ASS bag | std | | | | | | |
| | BH108_1.0-1.2 | 26/5/22 | - | soil | jar, ASS bag | std | X | X | | X | | |
| | BH108_2.0-2.2 | 26/5/22 | - | soil | jar, ASS bag | std | | | | | | |
| | BH108_2.8-3.0 | 26/5/22 | - | soil | jar, ASS bag | std | X | X | | X | | |
| | BH109_0-0.1 | 27/5/22 | - | soil | jar, ASS bag | std | X | X | X | | | |
| | BH109_0.5-0.6 | 27/5/22 | - | soil | jar, ASS bag | std | | | | | | |
| | BH109_1.0-1.2 | 27/5/22 | - | soil | jar, ASS bag | std | X | X | | X | | |
| | BH109_2.0-2.2 | 27/5/22 | - | soil | jar, ASS bag | std | | | | | | |
| | BH109_2.8-3.0 | 27/5/22 | - | soil | jar, ASS bag | std | X | X | | X | | |
| | BH1010_0-0.1 | 27/5/22 | - | soil | jar, ASS bag | std | X | X | X | | | |
| | BH1010_0.5-0.6 | 27/5/22 | - | soil | jar, ASS bag | std | X | X | | | | |

**RELINQUISHED BY**

Name: Wendy Cadelago Date: 27/5/22

Coffey Time:

Name: Date:

Company: Time:

**RECEIVED BY**

Name: Date:

Company: Time:

Name: Date:

Company: Time:

**Sample Receipt Advice: (Lab Use Only)**

All Samples Recieved in Good Condition ☐

All Documentation is in Proper Order ☐

Samples Received Properly Chilled ☐

Lab. Ref/Batch No.

*Container Type & Preservation Codes: P - Plastic, G- Glass Bottle, J - Glass Jar, V- Vial, Z - Ziplock bag, N - Nitric Acid Preserved, C - Hydrochloric Acid Preserved, S - Sulphuric Acid Preserved, I - Ice, ST - Sodium Thiosulfate, NP - No Preservative

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST



TETRA TECH COFFEY

| | | | | | |
|---|---|---|---|---|---|
| Consigning Office: | Sydney | | | | |
| Report Results to: | Matthew Locke | Mobile: | +61427202493 | Email: | Matthew.Locke@tetratech.com |
| Invoices to: | | Phone: | | Email: | |
| Project No: | SYDGE295047 | Task No: | Fieldwork | | |
| Project Name: | Dragons | Laboratory: | Eurofins | | |
| Sampler's Name: | Wendy Cadelago | Project Manager: | Matthew Locke | | |
| Quote number (if different to current quoted prices): | | | | | |
| Special Instructions: | | | | | |

| Lab Batch Ref | Sample ID | Sample Date | Time | Matrix (Soil...etc) | Container Type & Preservative* | T-A-T (specify) | Analysis Request Section: Suite M8 (Metals 8) | Suite B4 (TRH/PAH/BTEX) | Suite B15 (OCP/OPP/PCB) | ASS Screening (pH F / pH FOX) | SPOCAS | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | BH1010_0.9-1.0 | 27/5/22 | - | soil | jar, ASS bag | std | | | | | | |
| | BH1011_0-0.1 | 27/5/22 | - | soil | jar, ASS bag | std | X | X | X | | | |
| | BH1011_0.5-0.6 | 27/5/22 | - | soil | jar, ASS bag | std | | | | | | |
| | BH1011_1.0-1.2 | 27/5/22 | - | soil | jar, ASS bag | std | X | X | | X | | |
| | BH1011_2.0-2.2 | 27/5/22 | - | soil | jar, ASS bag | std | | | | | | |
| | BH1011_2.8-3.0 | 27/5/22 | - | soil | jar, ASS bag | std | X | X | | X | | |
| | BH1013_0-0.1 | 27/5/22 | - | soil | jar, ASS bag | std | X | X | | | | |
| | BH1013_0.5-0.6 | 27/5/22 | - | soil | jar, ASS bag | std | | | | | | |
| | BH1013_1.0-1.2 | 27/5/22 | - | soil | jar, ASS bag | std | X | X | | X | | |
| | BH1013_2.0-2.2 | 27/5/22 | - | soil | jar, ASS bag | std | | | | | | |
| | BH1013_2.8-3.0 | 27/5/22 | - | soil | jar, ASS bag | std | X | X | | X | | |
| | BH1014_0-0.1 | 27/5/22 | - | soil | jar, ASS bag | std | X | X | X | | | |
| | BH1014_0.5-0.6 | 27/5/22 | - | soil | jar, ASS bag | std | | | | | | |
| | BH1014_0.8-0.9 | 27/5/22 | - | soil | jar, ASS bag | std | X | X | | X | | |
| | BH1015_0-0.1 | 26/5/22 | - | soil | jar, ASS bag | std | X | X | X | | | |
| | BH1015_0.5-0.6 | 26/5/22 | - | soil | jar, ASS bag | std | X | X | | X | | |

| RELINQUISHED BY | | RECEIVED BY | |
|---|---|---|---|
| Name: Wendy Cadelago | Date: 27/5/22 | Name: | Date: |
| Company: Coffey | Time: | Company: | Time: |
| Name: | Date: | Name: | Date: |
| Company: | Time: | Company: | Time: |

**Sample Receipt Advice: (Lab Use Only)**

All Samples Recieved in Good Condition ☐

All Documentation is in Proper Order ☐

Samples Received Properly Chilled ☐

Lab. Ref/Batch No.

*Container Type & Preservation Codes: P - Plastic, G- Glass Bottle, J - Glass Jar, V- Vial, Z - Ziplock bag, N - Nitric Acid Preserved, C - Hydrochloric Acid Preserved, S - Sulphuric Acid Preserved, I - Ice, ST - Sodium Thiosulfate, NP - No Preservative

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST



TETRA TECH COFFEY

Consigning Office: Sydney

Report Results to: Matthew Locke Mobile: +61427202493 Email: Matthew.Locke@tetratech.com

Invoices to: Phone: Email:

Project No: SYDGE295047 Task No: Fieldwork

Project Name: Dragons Laboratory: Eurofins

Sampler's Name: Wendy Cadelago Project Manager: Matthew Locke

Quote number (if different to current quoted prices):

Special Instructions: Please send QA1A to ALS for analysis.

| Lab Batch Ref | Sample ID | Sample Date | Time | Matrix (Soil...etc) | Container Type & Preservative* | T-A-T (specify) | Analysis Request Section: Suite M8 (Metals 8) | Suite B4 (TRH/PAH/BTEX) | Suite B15 (OCP/OPP/PCB) | ASS Screening (pH F / pH FOX) | SPOCAS | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | BH1015_1.0-1.1 | 26/5/22 | - | soil | jar, ASS bag | std | | | | | | |
| | QA1 | 27/5/22 | - | soil | jar, ASS bag | std | X | X | X | | | |
| | QA1A | 27/5/22 | - | soil | jar, ASS bag | std | X | X | X | | | Send to ALS |
| | QA2 | 27/5/22 | - | soil | jar, ASS bag | std | | | | | | |
| | QA2A | 27/5/22 | - | soil | jar, ASS bag | std | | | | | | |
| | RB260522 | 26/5/22 | - | water | | std | | | | | | |
| | RB270522 | 27/5/22 | - | water | | std | X | X | X | | | |

**RELINQUISHED BY**

Name: Wendy Cadelago Date: 27/5/22

Coffey Time:

Name: Date:

Company: Time:

**RECEIVED BY**

Name: Date:

Company: Time:

Name: Date:

Company: Time:

**Sample Receipt Advice: (Lab Use Only)**

All Samples Recieved in Good Condition ☐

All Documentation is in Proper Order ☐

Samples Received Properly Chilled ☐

Lab. Ref/Batch No.

***Container Type & Preservation Codes:** P - Plastic, G- Glass Bottle, J - Glass Jar, V- Vial, Z - Ziplock bag, N - Nitric Acid Preserved, C - Hydrochloric Acid Preserved, S - Sulphuric Acid Preserved, I - Ice, ST - Sodium Thiosulfate, NP - No Preservative

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**Brisbane**
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Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

**Newcastle**
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IANZ # 1327

**Christchurch**
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Phone : 0800 856 450
IANZ # 1290

**Company Name:** Coffey Environments Pty Ltd NSW
**Address:** Level 20, Tower B, Citadel Tower 799 Pacific Highway
Chatswood
NSW 2067

**Project Name:** DRAGONS
**Project ID:** SYDGE295047

**Order No.:**
**Report #:** 893864
**Phone:** +61 2 9406 1000
**Fax:** +61 2 9406 1004

**Received:** Jun 1, 2022 12:47 PM
**Due:** Jun 14, 2022
**Priority:** 1 Day
**Contact Name:** Matthew Locke

**Eurofins Analytical Services Manager : Asim Khan**

| Sample Detail | | | | | | CANCELLED | HOLD | Acid Sulfate Soils Field pH Test | Metals M8 | Eurofins Suite B15 | Moisture Set | Eurofins Suite B4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | X | X | X | X | X | X | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| **No** | **Sample ID** | **Sample Date** | **Sampling Time** | **Matrix** | **LAB ID** | | | | | | | |
| 1 | BH101_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002950 | | | | X | X | X | X |
| 2 | BH101_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0002951 | | | X | X | | X | X |
| 3 | BH101_2.4-2.6 | May 26, 2022 | | Soil | S22-Jn0002952 | | | X | X | | X | X |
| 4 | BH105_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002953 | | | | X | X | X | X |
| 5 | BH105_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0002954 | | | X | X | | X | X |
| 6 | BH105_2.0-2.2 | May 26, 2022 | | Soil | S22- | | | X | X | | X | X |

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NATA # 1261 Site # 25079

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Phone : +64 9 526 45 51
IANZ # 1327

**Christchurch**
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Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

**Company Name:** Coffey Environments Pty Ltd NSW
**Address:** Level 20, Tower B, Citadel Tower 799 Pacific Highway
Chatswood
NSW 2067

**Project Name:** DRAGONS
**Project ID:** SYDGE295047

**Order No.:**
**Report #:** 893864
**Phone:** +61 2 9406 1000
**Fax:** +61 2 9406 1004

**Received:** Jun 1, 2022 12:47 PM
**Due:** Jun 14, 2022
**Priority:** 1 Day
**Contact Name:** Matthew Locke

**Eurofins Analytical Services Manager : Asim Khan**

| Sample Detail | | | | | | CANCELLED | HOLD | Acid Sulfate Soils Field pH Test | Metals M8 | Eurofins Suite B15 | Moisture Set | Eurofins Suite B4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | X | X | X | X | X | X | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| | | | | | Jn0002955 | | | | | | | |
| 7 | BH106_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002956 | | | | X | X | X | X |
| 8 | BH106_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0002957 | | | X | X | | X | X |
| 9 | BH106_2.8-3.0 | May 26, 2022 | | Soil | S22-Jn0002958 | | | X | X | | X | X |
| 10 | BH107_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002959 | | | | X | X | X | X |
| 11 | BH107_0.9-1.0 | May 26, 2022 | | Soil | S22-Jn0002960 | | | X | X | | X | X |
| 12 | BH107_2.8-3.0 | May 26, 2022 | | Soil | S22-Jn0002961 | | | X | X | | X | X |

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NATA # 1261 Site # 25079

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IANZ # 1327

**Christchurch**
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Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

**Company Name:** Coffey Environments Pty Ltd NSW
**Address:** Level 20, Tower B, Citadel Tower 799 Pacific Highway
Chatswood
NSW 2067

**Project Name:** DRAGONS
**Project ID:** SYDGE295047

**Order No.:**
**Report #:** 893864
**Phone:** +61 2 9406 1000
**Fax:** +61 2 9406 1004

**Received:** Jun 1, 2022 12:47 PM
**Due:** Jun 14, 2022
**Priority:** 1 Day
**Contact Name:** Matthew Locke

**Eurofins Analytical Services Manager : Asim Khan**

| Sample Detail | | | | | | CANCELLED | HOLD | Acid Sulfate Soils Field pH Test | Metals M8 | Eurofins Suite B15 | Moisture Set | Eurofins Suite B4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | X | X | X | X | X | X | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| 13 | BH108_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002962 | | | | X | X | X | X |
| 14 | BH108_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0002963 | | | X | X | | X | X |
| 15 | BH108_2.8-3.0 | May 26, 2022 | | Soil | S22-Jn0002964 | | | X | X | | X | X |
| 16 | BH109_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002965 | | | | X | X | X | X |
| 17 | BH109_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0002966 | | | X | X | | X | X |
| 18 | BH109_2.8-3.0 | May 26, 2022 | | Soil | S22-Jn0002967 | | | X | X | | X | X |
| 19 | BH1010_0-0.1 | May 26, 2022 | | Soil | S22- | | | | X | X | X | X |

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NATA # 1261 Site # 25079

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IANZ # 1290

**Company Name:** Coffey Environments Pty Ltd NSW
**Address:** Level 20, Tower B, Citadel Tower 799 Pacific Highway
Chatswood
NSW 2067

**Project Name:** DRAGONS
**Project ID:** SYDGE295047

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**Contact Name:** Matthew Locke

**Eurofins Analytical Services Manager : Asim Khan**

| Sample Detail | | | | | | CANCELLED | HOLD | Acid Sulfate Soils Field pH Test | Metals M8 | Eurofins Suite B15 | Moisture Set | Eurofins Suite B4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | X | X | X | X | X | X | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| | | | | | Jn0002968 | | | | | | | |
| 20 | BH1010_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002969 | | | | X | | X | X |
| 21 | BH1011_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002970 | | | | X | X | X | X |
| 22 | BH1011_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0002971 | | | X | X | | X | X |
| 23 | BH1011_2.8-3.0 | May 26, 2022 | | Soil | S22-Jn0002972 | | | X | X | | X | X |
| 24 | BH1013_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002973 | | | | X | | X | X |
| 25 | BH1013_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0002974 | | | X | X | | X | X |

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**Company Name:** Coffey Environments Pty Ltd NSW
**Address:** Level 20, Tower B, Citadel Tower 799 Pacific Highway
Chatswood
NSW 2067

**Project Name:** DRAGONS
**Project ID:** SYDGE295047

**Order No.:**
**Report #:** 893864
**Phone:** +61 2 9406 1000
**Fax:** +61 2 9406 1004

**Received:** Jun 1, 2022 12:47 PM
**Due:** Jun 14, 2022
**Priority:** 1 Day
**Contact Name:** Matthew Locke

**Eurofins Analytical Services Manager : Asim Khan**

| Sample Detail | | | | | | CANCELLED | HOLD | Acid Sulfate Soils Field pH Test | Metals M8 | Eurofins Suite B15 | Moisture Set | Eurofins Suite B4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | X | X | X | X | X | X | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| 26 | BH1013_2.8-3.0 | May 26, 2022 | | Soil | S22-Jn0002975 | | | X | X | | X | X |
| 27 | BH1014_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002976 | | | | X | X | X | X |
| 28 | BH1014_0.8-0.9 | May 26, 2022 | | Soil | S22-Jn0002977 | | | X | X | | X | X |
| 29 | BH1015_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002978 | | | | X | X | X | X |
| 30 | BH1015_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002979 | | | X | X | | X | X |
| 31 | QA1 | May 26, 2022 | | Soil | S22-Jn0002980 | | | | X | X | X | X |
| 32 | QA1A | May 26, 2022 | | Soil | S22- | X | | | | | | |

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**Eurofins Environment Testing Australia Pty Ltd**
ABN: 50 005 085 521

**Melbourne**
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Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

**Sydney**
179 Magowar Road
Girraween NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

**Newcastle**
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Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

**Eurofins ARL Pty Ltd**
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**Perth**
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

**Eurofins Environment Testing NZ Limited**
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**Auckland**
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Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

**Christchurch**
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Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

**Company Name:** Coffey Environments Pty Ltd NSW
**Address:** Level 20, Tower B, Citadel Tower 799 Pacific Highway
Chatswood
NSW 2067

**Project Name:** DRAGONS
**Project ID:** SYDGE295047

**Order No.:**
**Report #:** 893864
**Phone:** +61 2 9406 1000
**Fax:** +61 2 9406 1004

**Received:** Jun 1, 2022 12:47 PM
**Due:** Jun 14, 2022
**Priority:** 1 Day
**Contact Name:** Matthew Locke

**Eurofins Analytical Services Manager : Asim Khan**

| Sample Detail | | | | | | CANCELLED | HOLD | Acid Sulfate Soils Field pH Test | Metals M8 | Eurofins Suite B15 | Moisture Set | Eurofins Suite B4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | X | X | X | X | X | X | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| | | | | | Jn0002981 | | | | | | | |
| 33 | RB270522 | May 26, 2022 | | Water | S22-Jn0002982 | | | | X | X | | X |
| 34 | BH101_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002983 | | X | | | | | |
| 35 | BH101_2.0-2.2 | May 26, 2022 | | Soil | S22-Jn0002984 | | X | | | | | |
| 36 | BH105_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002985 | | X | | | | | |
| 37 | BH105_2.5-2.7 | May 26, 2022 | | Soil | S22-Jn0002986 | | X | | | | | |
| 38 | BH106_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002987 | | X | | | | | |

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**Eurofins Analytical Services Manager : Asim Khan**

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | X | X | X | X | X | X | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| 39 | BH106_2.0-2.2 | May 26, 2022 | | Soil | S22-Jn0002988 | | X | | | | | |
| 40 | BH107_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002989 | | X | | | | | |
| 41 | BH107_2.0-2.2 | May 26, 2022 | | Soil | S22-Jn0002990 | | X | | | | | |
| 42 | BH108_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002991 | | X | | | | | |
| 43 | BH108_2.0-2.2 | May 26, 2022 | | Soil | S22-Jn0002992 | | X | | | | | |
| 44 | BH109_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002993 | | X | | | | | |
| 45 | BH109_2.0-2.2 | May 26, 2022 | | Soil | S22- | | X | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | X | X | X | X | X | X | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| | | | | | Jn0002994 | | | | | | | |
| 46 | BH1010_0.9-1.0 | May 26, 2022 | | Soil | S22-Jn0002995 | | X | | | | | |
| 47 | BH1011_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002996 | | X | | | | | |
| 48 | BH1011_2.0-2.2 | May 26, 2022 | | Soil | S22-Jn0002997 | | X | | | | | |
| 49 | BH1013_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002998 | | X | | | | | |
| 50 | BH1013_2.0-2.2 | May 26, 2022 | | Soil | S22-Jn0002999 | | X | | | | | |
| 51 | BH1014_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0003000 | | X | | | | | |

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**Project ID:** SYDGE295047

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**Contact Name:** Matthew Locke

**Eurofins Analytical Services Manager : Asim Khan**

| Sample Detail | | | | | | CANCELLED | HOLD | Acid Sulfate Soils Field pH Test | Metals M8 | Eurofins Suite B15 | Moisture Set | Eurofins Suite B4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | X | X | X | X | X | X | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| 52 | BH1015_1.0-1.1 | May 26, 2022 | | Soil | S22-Jn0003001 | | X | | | | | |
| 53 | QA2 | May 26, 2022 | | Soil | S22-Jn0003002 | | X | | | | | |
| 54 | QA2A | May 26, 2022 | | Soil | S22-Jn0003003 | | X | | | | | |
| 55 | RB260522 | May 26, 2022 | | Water | S22-Jn0003004 | | X | | | | | |
| **Test Counts** | | | | | | 1 | 22 | 18 | 32 | 12 | 31 | 32 |

**Coffey Environments Pty Ltd NSW**
**Level 20, Tower B, Citadel Tower 799 Pacific Highway**
**Chatswood**
**NSW 2067**



**Attention:** **Matthew Locke**

**Report** **893864-S**
Project name DRAGONS
Project ID SYDGE295047
Received Date Jun 01, 2022

| **Client Sample ID** | | | **BH101_0-0.1** | **BH101_1.0-1.2** | **BH101_2.4-2.6** | **BH105_0-0.1** |
|---|---|---|---|---|---|---|
| **Sample Matrix** | | | **Soil** | **Soil** | **Soil** | **Soil** |
| **Eurofins Sample No.** | | | **S22-Jn0002950** | **S22-Jn0002951** | **S22-Jn0002952** | **S22-Jn0002953** |
| **Date Sampled** | | | **May 26, 2022** | **May 26, 2022** | **May 26, 2022** | **May 26, 2022** |
| Test/Reference | LOR | Unit | | | | |
| **Total Recoverable Hydrocarbons** | | | | | | |
| TRH C6-C9 | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH C10-C14 | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH C15-C28 | 50 | mg/kg | < 50 | < 50 | < 50 | < 50 |
| TRH C29-C36 | 50 | mg/kg | < 50 | < 50 | < 50 | < 50 |
| TRH C10-C36 (Total) | 50 | mg/kg | < 50 | < 50 | < 50 | < 50 |
| Naphthalene[N02] | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| TRH C6-C10 | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH C6-C10 less BTEX (F1)[N04] | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH >C10-C16 | 50 | mg/kg | < 50 | < 50 | < 50 | < 50 |
| TRH >C10-C16 less Naphthalene (F2)[N01] | 50 | mg/kg | < 50 | < 50 | < 50 | < 50 |
| TRH >C16-C34 | 100 | mg/kg | < 100 | < 100 | < 100 | < 100 |
| TRH >C34-C40 | 100 | mg/kg | < 100 | < 100 | < 100 | < 100 |
| TRH >C10-C40 (total)* | 100 | mg/kg | < 100 | < 100 | < 100 | < 100 |
| **BTEX** | | | | | | |
| Benzene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Toluene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Ethylbenzene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| m&p-Xylenes | 0.2 | mg/kg | < 0.2 | < 0.2 | < 0.2 | < 0.2 |
| o-Xylene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Xylenes - Total* | 0.3 | mg/kg | < 0.3 | < 0.3 | < 0.3 | < 0.3 |
| 4-Bromofluorobenzene (surr.) | 1 | % | 83 | INT | 66 | 80 |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | |
| Benzo(a)pyrene TEQ (lower bound) * | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(a)pyrene TEQ (medium bound) * | 0.5 | mg/kg | 0.6 | 0.6 | 0.6 | 0.6 |
| Benzo(a)pyrene TEQ (upper bound) * | 0.5 | mg/kg | 1.2 | 1.2 | 1.2 | 1.2 |
| Acenaphthene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Acenaphthylene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Anthracene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benz(a)anthracene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(a)pyrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(b&j)fluoranthene[N07] | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(g.h.i)perylene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(k)fluoranthene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Chrysene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Dibenz(a.h)anthracene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |

| Client Sample ID | | | BH101_0-0.1 | BH101_1.0-1.2 | BH101_2.4-2.6 | BH105_0-0.1 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002950 | S22-Jn0002951 | S22-Jn0002952 | S22-Jn0002953 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | |
| Fluoranthene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Fluorene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Indeno(1.2.3-cd)pyrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Naphthalene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Phenanthrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Pyrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Total PAH* | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 2-Fluorobiphenyl (surr.) | 1 | % | 113 | 99 | 69 | 58 |
| p-Terphenyl-d14 (surr.) | 1 | % | 127 | 116 | 96 | 93 |
| **Organochlorine Pesticides** | | | | | | |
| Chlordanes - Total | 0.1 | mg/kg | < 0.1 | - | - | < 0.1 |
| 4.4'-DDD | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| 4.4'-DDE | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| 4.4'-DDT | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| a-HCH | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Aldrin | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| b-HCH | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| d-HCH | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Dieldrin | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Endosulfan I | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Endosulfan II | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Endosulfan sulphate | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Endrin | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Endrin aldehyde | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Endrin ketone | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| g-HCH (Lindane) | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Heptachlor | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Heptachlor epoxide | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Hexachlorobenzene | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Methoxychlor | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Toxaphene | 0.5 | mg/kg | < 0.5 | - | - | < 0.5 |
| Aldrin and Dieldrin (Total)* | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| DDT + DDE + DDD (Total)* | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Vic EPA IWRG 621 OCP (Total)* | 0.1 | mg/kg | < 0.1 | - | - | < 0.1 |
| Vic EPA IWRG 621 Other OCP (Total)* | 0.1 | mg/kg | < 0.1 | - | - | < 0.1 |
| Dibutylchlorendate (surr.) | 1 | % | 139 | - | - | 85 |
| Tetrachloro-m-xylene (surr.) | 1 | % | 112 | - | - | 96 |
| **Organophosphorus Pesticides** | | | | | | |
| Azinphos-methyl | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Bolstar | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Chlorfenvinphos | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Chlorpyrifos | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Chlorpyrifos-methyl | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Coumaphos | 2 | mg/kg | < 2 | - | - | < 2 |
| Demeton-S | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Demeton-O | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Diazinon | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Dichlorvos | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Dimethoate | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |

| Client Sample ID | | | BH101_0-0.1 | BH101_1.0-1.2 | BH101_2.4-2.6 | BH105_0-0.1 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002950 | S22-Jn0002951 | S22-Jn0002952 | S22-Jn0002953 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Organophosphorus Pesticides** | | | | | | |
| Disulfoton | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| EPN | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Ethion | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Ethoprop | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Ethyl parathion | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Fenitrothion | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Fensulfothion | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Fenthion | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Malathion | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Merphos | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Methyl parathion | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Mevinphos | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Monocrotophos | 2 | mg/kg | < 2 | - | - | < 2 |
| Naled | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Omethoate | 2 | mg/kg | < 2 | - | - | < 2 |
| Phorate | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Pirimiphos-methyl | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Pyrazophos | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Ronnel | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Terbufos | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Tetrachlorvinphos | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Tokuthion | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Trichloronate | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Triphenylphosphate (surr.) | 1 | % | 139 | - | - | 86 |
| **Polychlorinated Biphenyls** | | | | | | |
| Aroclor-1016 | 0.1 | mg/kg | < 0.1 | - | - | < 0.1 |
| Aroclor-1221 | 0.1 | mg/kg | < 0.1 | - | - | < 0.1 |
| Aroclor-1232 | 0.1 | mg/kg | < 0.1 | - | - | < 0.1 |
| Aroclor-1242 | 0.1 | mg/kg | < 0.1 | - | - | < 0.1 |
| Aroclor-1248 | 0.1 | mg/kg | < 0.1 | - | - | < 0.1 |
| Aroclor-1254 | 0.1 | mg/kg | < 0.1 | - | - | < 0.1 |
| Aroclor-1260 | 0.1 | mg/kg | < 0.1 | - | - | < 0.1 |
| Total PCB* | 0.1 | mg/kg | < 0.1 | - | - | < 0.1 |
| Dibutylchlorendate (surr.) | 1 | % | 139 | - | - | 85 |
| Tetrachloro-m-xylene (surr.) | 1 | % | 112 | - | - | 96 |
| **Heavy Metals** | | | | | | |
| Arsenic | 2 | mg/kg | 8.8 | 6.0 | < 2 | 5.5 |
| Cadmium | 0.4 | mg/kg | 1.5 | 1.1 | 0.7 | 0.8 |
| Chromium | 5 | mg/kg | 26 | 30 | 17 | 17 |
| Copper | 5 | mg/kg | 32 | 55 | 12 | 18 |
| Lead | 5 | mg/kg | 55 | 29 | 9.1 | 31 |
| Mercury | 0.1 | mg/kg | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Nickel | 5 | mg/kg | 25 | 6.0 | 6.6 | 15 |
| Zinc | 5 | mg/kg | 100 | 23 | 9.0 | 76 |
| | | | | | | |
| % Moisture | 1 | % | 32 | 19 | 17 | 28 |
| **Acid Sulfate Soils Field pH Test** | | | | | | |
| pH-F (Field pH test)* | 0.1 | pH Units | - | 4.8 | 5.5 | - |
| pH-FOX (Field pH Peroxide test)* | 0.1 | pH Units | - | 3.6 | 5.0 | - |
| Reaction Ratings*[S05] | 0 | - | - | 1.0 | 1.0 | - |

| Client Sample ID | | | BH105_1.0-1.2 | BH105_2.0-2.2 | BH106_0-0.1 | BH106_1.0-1.2 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002954 | S22-Jn0002955 | S22-Jn0002956 | S22-Jn0002957 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Total Recoverable Hydrocarbons** | | | | | | |
| TRH C6-C9 | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH C10-C14 | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH C15-C28 | 50 | mg/kg | < 50 | < 50 | 60 | < 50 |
| TRH C29-C36 | 50 | mg/kg | < 50 | < 50 | < 50 | < 50 |
| TRH C10-C36 (Total) | 50 | mg/kg | < 50 | < 50 | 60 | < 50 |
| Naphthalene[N02] | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| TRH C6-C10 | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH C6-C10 less BTEX (F1)[N04] | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH >C10-C16 | 50 | mg/kg | < 50 | < 50 | < 50 | < 50 |
| TRH >C10-C16 less Naphthalene (F2)[N01] | 50 | mg/kg | < 50 | < 50 | < 50 | < 50 |
| TRH >C16-C34 | 100 | mg/kg | < 100 | < 100 | < 100 | < 100 |
| TRH >C34-C40 | 100 | mg/kg | < 100 | < 100 | < 100 | < 100 |
| TRH >C10-C40 (total)* | 100 | mg/kg | < 100 | < 100 | < 100 | < 100 |
| **BTEX** | | | | | | |
| Benzene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Toluene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Ethylbenzene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| m&p-Xylenes | 0.2 | mg/kg | < 0.2 | < 0.2 | < 0.2 | < 0.2 |
| o-Xylene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Xylenes - Total* | 0.3 | mg/kg | < 0.3 | < 0.3 | < 0.3 | < 0.3 |
| 4-Bromofluorobenzene (surr.) | 1 | % | 93 | 102 | 78 | 106 |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | |
| Benzo(a)pyrene TEQ (lower bound) * | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(a)pyrene TEQ (medium bound) * | 0.5 | mg/kg | 0.6 | 0.6 | 0.6 | 0.6 |
| Benzo(a)pyrene TEQ (upper bound) * | 0.5 | mg/kg | 1.2 | 1.2 | 1.2 | 1.2 |
| Acenaphthene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Acenaphthylene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Anthracene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benz(a)anthracene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(a)pyrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(b&j)fluoranthene[N07] | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(g.h.i)perylene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(k)fluoranthene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Chrysene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Dibenz(a.h)anthracene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Fluoranthene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Fluorene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Indeno(1.2.3-cd)pyrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Naphthalene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Phenanthrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Pyrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Total PAH* | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 2-Fluorobiphenyl (surr.) | 1 | % | 73 | 65 | 80 | 79 |
| p-Terphenyl-d14 (surr.) | 1 | % | 127 | 89 | 104 | 100 |
| **Organochlorine Pesticides** | | | | | | |
| Chlordanes - Total | 0.1 | mg/kg | - | - | < 0.1 | - |
| 4.4'-DDD | 0.05 | mg/kg | - | - | < 0.05 | - |
| 4.4'-DDE | 0.05 | mg/kg | - | - | < 0.05 | - |
| 4.4'-DDT | 0.05 | mg/kg | - | - | < 0.05 | - |

| Client Sample ID | | | BH105_1.0-1.2 | BH105_2.0-2.2 | BH106_0-0.1 | BH106_1.0-1.2 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002954 | S22-Jn0002955 | S22-Jn0002956 | S22-Jn0002957 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Organochlorine Pesticides** | | | | | | |
| a-HCH | 0.05 | mg/kg | - | - | < 0.05 | - |
| Aldrin | 0.05 | mg/kg | - | - | < 0.05 | - |
| b-HCH | 0.05 | mg/kg | - | - | < 0.05 | - |
| d-HCH | 0.05 | mg/kg | - | - | < 0.05 | - |
| Dieldrin | 0.05 | mg/kg | - | - | < 0.05 | - |
| Endosulfan I | 0.05 | mg/kg | - | - | < 0.05 | - |
| Endosulfan II | 0.05 | mg/kg | - | - | < 0.05 | - |
| Endosulfan sulphate | 0.05 | mg/kg | - | - | < 0.05 | - |
| Endrin | 0.05 | mg/kg | - | - | < 0.05 | - |
| Endrin aldehyde | 0.05 | mg/kg | - | - | < 0.05 | - |
| Endrin ketone | 0.05 | mg/kg | - | - | < 0.05 | - |
| g-HCH (Lindane) | 0.05 | mg/kg | - | - | < 0.05 | - |
| Heptachlor | 0.05 | mg/kg | - | - | < 0.05 | - |
| Heptachlor epoxide | 0.05 | mg/kg | - | - | < 0.05 | - |
| Hexachlorobenzene | 0.05 | mg/kg | - | - | < 0.05 | - |
| Methoxychlor | 0.05 | mg/kg | - | - | < 0.05 | - |
| Toxaphene | 0.5 | mg/kg | - | - | < 0.5 | - |
| Aldrin and Dieldrin (Total)* | 0.05 | mg/kg | - | - | < 0.05 | - |
| DDT + DDE + DDD (Total)* | 0.05 | mg/kg | - | - | < 0.05 | - |
| Vic EPA IWRG 621 OCP (Total)* | 0.1 | mg/kg | - | - | < 0.1 | - |
| Vic EPA IWRG 621 Other OCP (Total)* | 0.1 | mg/kg | - | - | < 0.1 | - |
| Dibutylchlorendate (surr.) | 1 | % | - | - | 133 | - |
| Tetrachloro-m-xylene (surr.) | 1 | % | - | - | 120 | - |
| **Organophosphorus Pesticides** | | | | | | |
| Azinphos-methyl | 0.2 | mg/kg | - | - | < 0.2 | - |
| Bolstar | 0.2 | mg/kg | - | - | < 0.2 | - |
| Chlorfenvinphos | 0.2 | mg/kg | - | - | < 0.2 | - |
| Chlorpyrifos | 0.2 | mg/kg | - | - | < 0.2 | - |
| Chlorpyrifos-methyl | 0.2 | mg/kg | - | - | < 0.2 | - |
| Coumaphos | 2 | mg/kg | - | - | < 2 | - |
| Demeton-S | 0.2 | mg/kg | - | - | < 0.2 | - |
| Demeton-O | 0.2 | mg/kg | - | - | < 0.2 | - |
| Diazinon | 0.2 | mg/kg | - | - | < 0.2 | - |
| Dichlorvos | 0.2 | mg/kg | - | - | < 0.2 | - |
| Dimethoate | 0.2 | mg/kg | - | - | < 0.2 | - |
| Disulfoton | 0.2 | mg/kg | - | - | < 0.2 | - |
| EPN | 0.2 | mg/kg | - | - | < 0.2 | - |
| Ethion | 0.2 | mg/kg | - | - | < 0.2 | - |
| Ethoprop | 0.2 | mg/kg | - | - | < 0.2 | - |
| Ethyl parathion | 0.2 | mg/kg | - | - | < 0.2 | - |
| Fenitrothion | 0.2 | mg/kg | - | - | < 0.2 | - |
| Fensulfothion | 0.2 | mg/kg | - | - | < 0.2 | - |
| Fenthion | 0.2 | mg/kg | - | - | < 0.2 | - |
| Malathion | 0.2 | mg/kg | - | - | < 0.2 | - |
| Merphos | 0.2 | mg/kg | - | - | < 0.2 | - |
| Methyl parathion | 0.2 | mg/kg | - | - | < 0.2 | - |
| Mevinphos | 0.2 | mg/kg | - | - | < 0.2 | - |
| Monocrotophos | 2 | mg/kg | - | - | < 2 | - |
| Naled | 0.2 | mg/kg | - | - | < 0.2 | - |

| Client Sample ID | | | BH105_1.0-1.2 | BH105_2.0-2.2 | BH106_0-0.1 | BH106_1.0-1.2 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002954 | S22-Jn0002955 | S22-Jn0002956 | S22-Jn0002957 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Organophosphorus Pesticides** | | | | | | |
| Omethoate | 2 | mg/kg | - | - | < 2 | - |
| Phorate | 0.2 | mg/kg | - | - | < 0.2 | - |
| Pirimiphos-methyl | 0.2 | mg/kg | - | - | < 0.2 | - |
| Pyrazophos | 0.2 | mg/kg | - | - | < 0.2 | - |
| Ronnel | 0.2 | mg/kg | - | - | < 0.2 | - |
| Terbufos | 0.2 | mg/kg | - | - | < 0.2 | - |
| Tetrachlorvinphos | 0.2 | mg/kg | - | - | < 0.2 | - |
| Tokuthion | 0.2 | mg/kg | - | - | < 0.2 | - |
| Trichloronate | 0.2 | mg/kg | - | - | < 0.2 | - |
| Triphenylphosphate (surr.) | 1 | % | - | - | 132 | - |
| **Polychlorinated Biphenyls** | | | | | | |
| Aroclor-1016 | 0.1 | mg/kg | - | - | < 0.1 | - |
| Aroclor-1221 | 0.1 | mg/kg | - | - | < 0.1 | - |
| Aroclor-1232 | 0.1 | mg/kg | - | - | < 0.1 | - |
| Aroclor-1242 | 0.1 | mg/kg | - | - | < 0.1 | - |
| Aroclor-1248 | 0.1 | mg/kg | - | - | < 0.1 | - |
| Aroclor-1254 | 0.1 | mg/kg | - | - | < 0.1 | - |
| Aroclor-1260 | 0.1 | mg/kg | - | - | < 0.1 | - |
| Total PCB* | 0.1 | mg/kg | - | - | < 0.1 | - |
| Dibutylchlorendate (surr.) | 1 | % | - | - | 133 | - |
| Tetrachloro-m-xylene (surr.) | 1 | % | - | - | 120 | - |
| **Heavy Metals** | | | | | | |
| Arsenic | 2 | mg/kg | 6.9 | 2.9 | 4.3 | < 2 |
| Cadmium | 0.4 | mg/kg | 0.7 | 0.5 | 0.5 | 0.5 |
| Chromium | 5 | mg/kg | 33 | 31 | 18 | 26 |
| Copper | 5 | mg/kg | 27 | 17 | 24 | 13 |
| Lead | 5 | mg/kg | 14 | 13 | 35 | 13 |
| Mercury | 0.1 | mg/kg | < 0.1 | < 0.1 | 0.1 | < 0.1 |
| Nickel | 5 | mg/kg | 8.7 | 11 | 17 | 7.6 |
| Zinc | 5 | mg/kg | 19 | 15 | 63 | 16 |
| | | | | | | |
| % Moisture | 1 | % | 25 | 22 | 30 | 24 |
| **Acid Sulfate Soils Field pH Test** | | | | | | |
| pH-F (Field pH test)* | 0.1 | pH Units | 4.8 | 4.7 | - | 4.9 |
| pH-FOX (Field pH Peroxide test)* | 0.1 | pH Units | 3.7 | 4.1 | - | 3.9 |
| Reaction Ratings*[S05] | 0 | - | 1.0 | 1.0 | - | 1.0 |

| Client Sample ID | | | BH106_2.8-3.0 | BH107_0-0.1 | BH107_0.9-1.0 | BH107_2.8-3.0 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002958 | S22-Jn0002959 | S22-Jn0002960 | S22-Jn0002961 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Total Recoverable Hydrocarbons** | | | | | | |
| TRH C6-C9 | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH C10-C14 | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH C15-C28 | 50 | mg/kg | < 50 | 83 | < 50 | < 50 |
| TRH C29-C36 | 50 | mg/kg | < 50 | 73 | < 50 | < 50 |
| TRH C10-C36 (Total) | 50 | mg/kg | < 50 | 156 | < 50 | < 50 |

| Client Sample ID | | | BH106_2.8-3.0 | BH107_0-0.1 | BH107_0.9-1.0 | BH107_2.8-3.0 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002958 | S22-Jn0002959 | S22-Jn0002960 | S22-Jn0002961 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Total Recoverable Hydrocarbons** | | | | | | |
| Naphthalene[N02] | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| TRH C6-C10 | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH C6-C10 less BTEX (F1)[N04] | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH >C10-C16 | 50 | mg/kg | < 50 | < 50 | < 50 | < 50 |
| TRH >C10-C16 less Naphthalene (F2)[N01] | 50 | mg/kg | < 50 | < 50 | < 50 | < 50 |
| TRH >C16-C34 | 100 | mg/kg | < 100 | 140 | < 100 | < 100 |
| TRH >C34-C40 | 100 | mg/kg | < 100 | < 100 | < 100 | < 100 |
| TRH >C10-C40 (total)* | 100 | mg/kg | < 100 | 140 | < 100 | < 100 |
| **BTEX** | | | | | | |
| Benzene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Toluene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Ethylbenzene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| m&p-Xylenes | 0.2 | mg/kg | < 0.2 | < 0.2 | < 0.2 | < 0.2 |
| o-Xylene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Xylenes - Total* | 0.3 | mg/kg | < 0.3 | < 0.3 | < 0.3 | < 0.3 |
| 4-Bromofluorobenzene (surr.) | 1 | % | 84 | 82 | 85 | 83 |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | |
| Benzo(a)pyrene TEQ (lower bound) * | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(a)pyrene TEQ (medium bound) * | 0.5 | mg/kg | 0.6 | 0.6 | 0.6 | 0.6 |
| Benzo(a)pyrene TEQ (upper bound) * | 0.5 | mg/kg | 1.2 | 1.2 | 1.2 | 1.2 |
| Acenaphthene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Acenaphthylene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Anthracene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benz(a)anthracene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(a)pyrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(b&j)fluoranthene[N07] | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(g.h.i)perylene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(k)fluoranthene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Chrysene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Dibenz(a.h)anthracene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Fluoranthene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Fluorene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Indeno(1.2.3-cd)pyrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Naphthalene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Phenanthrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Pyrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Total PAH* | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 2-Fluorobiphenyl (surr.) | 1 | % | 100 | 83 | 86 | 85 |
| p-Terphenyl-d14 (surr.) | 1 | % | 117 | 93 | 96 | 89 |
| **Organochlorine Pesticides** | | | | | | |
| Chlordanes - Total | 0.1 | mg/kg | - | < 0.1 | - | - |
| 4.4'-DDD | 0.05 | mg/kg | - | < 0.05 | - | - |
| 4.4'-DDE | 0.05 | mg/kg | - | < 0.05 | - | - |
| 4.4'-DDT | 0.05 | mg/kg | - | < 0.05 | - | - |
| a-HCH | 0.05 | mg/kg | - | < 0.05 | - | - |
| Aldrin | 0.05 | mg/kg | - | < 0.05 | - | - |
| b-HCH | 0.05 | mg/kg | - | < 0.05 | - | - |
| d-HCH | 0.05 | mg/kg | - | < 0.05 | - | - |
| Dieldrin | 0.05 | mg/kg | - | < 0.05 | - | - |

| Client Sample ID | | | BH106_2.8-3.0 | BH107_0-0.1 | BH107_0.9-1.0 | BH107_2.8-3.0 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002958 | S22-Jn0002959 | S22-Jn0002960 | S22-Jn0002961 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Organochlorine Pesticides** | | | | | | |
| Endosulfan I | 0.05 | mg/kg | - | < 0.05 | - | - |
| Endosulfan II | 0.05 | mg/kg | - | < 0.05 | - | - |
| Endosulfan sulphate | 0.05 | mg/kg | - | < 0.05 | - | - |
| Endrin | 0.05 | mg/kg | - | < 0.05 | - | - |
| Endrin aldehyde | 0.05 | mg/kg | - | < 0.1 | - | - |
| Endrin ketone | 0.05 | mg/kg | - | < 0.05 | - | - |
| g-HCH (Lindane) | 0.05 | mg/kg | - | < 0.05 | - | - |
| Heptachlor | 0.05 | mg/kg | - | < 0.05 | - | - |
| Heptachlor epoxide | 0.05 | mg/kg | - | < 0.05 | - | - |
| Hexachlorobenzene | 0.05 | mg/kg | - | < 0.05 | - | - |
| Methoxychlor | 0.05 | mg/kg | - | < 0.05 | - | - |
| Toxaphene | 0.5 | mg/kg | - | < 0.5 | - | - |
| Aldrin and Dieldrin (Total)* | 0.05 | mg/kg | - | < 0.05 | - | - |
| DDT + DDE + DDD (Total)* | 0.05 | mg/kg | - | < 0.05 | - | - |
| Vic EPA IWRG 621 OCP (Total)* | 0.1 | mg/kg | - | < 0.1 | - | - |
| Vic EPA IWRG 621 Other OCP (Total)* | 0.1 | mg/kg | - | < 0.1 | - | - |
| Dibutylchlorendate (surr.) | 1 | % | - | 82 | - | - |
| Tetrachloro-m-xylene (surr.) | 1 | % | - | 89 | - | - |
| **Organophosphorus Pesticides** | | | | | | |
| Azinphos-methyl | 0.2 | mg/kg | - | < 0.2 | - | - |
| Bolstar | 0.2 | mg/kg | - | < 0.2 | - | - |
| Chlorfenvinphos | 0.2 | mg/kg | - | < 0.2 | - | - |
| Chlorpyrifos | 0.2 | mg/kg | - | < 0.2 | - | - |
| Chlorpyrifos-methyl | 0.2 | mg/kg | - | < 0.2 | - | - |
| Coumaphos | 2 | mg/kg | - | < 2 | - | - |
| Demeton-S | 0.2 | mg/kg | - | < 0.2 | - | - |
| Demeton-O | 0.2 | mg/kg | - | < 0.2 | - | - |
| Diazinon | 0.2 | mg/kg | - | < 0.2 | - | - |
| Dichlorvos | 0.2 | mg/kg | - | < 0.2 | - | - |
| Dimethoate | 0.2 | mg/kg | - | < 0.2 | - | - |
| Disulfoton | 0.2 | mg/kg | - | < 0.2 | - | - |
| EPN | 0.2 | mg/kg | - | < 0.2 | - | - |
| Ethion | 0.2 | mg/kg | - | < 0.2 | - | - |
| Ethoprop | 0.2 | mg/kg | - | < 0.2 | - | - |
| Ethyl parathion | 0.2 | mg/kg | - | < 0.2 | - | - |
| Fenitrothion | 0.2 | mg/kg | - | < 0.2 | - | - |
| Fensulfothion | 0.2 | mg/kg | - | < 0.2 | - | - |
| Fenthion | 0.2 | mg/kg | - | < 0.2 | - | - |
| Malathion | 0.2 | mg/kg | - | < 0.2 | - | - |
| Merphos | 0.2 | mg/kg | - | < 0.2 | - | - |
| Methyl parathion | 0.2 | mg/kg | - | < 0.2 | - | - |
| Mevinphos | 0.2 | mg/kg | - | < 0.2 | - | - |
| Monocrotophos | 2 | mg/kg | - | < 2 | - | - |
| Naled | 0.2 | mg/kg | - | < 0.2 | - | - |
| Omethoate | 2 | mg/kg | - | < 2 | - | - |
| Phorate | 0.2 | mg/kg | - | < 0.2 | - | - |
| Pirimiphos-methyl | 0.2 | mg/kg | - | < 0.2 | - | - |
| Pyrazophos | 0.2 | mg/kg | - | < 0.2 | - | - |
| Ronnel | 0.2 | mg/kg | - | < 0.2 | - | - |

| Client Sample ID | | | BH106_2.8-3.0 | BH107_0-0.1 | BH107_0.9-1.0 | BH107_2.8-3.0 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002958 | S22-Jn0002959 | S22-Jn0002960 | S22-Jn0002961 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Organophosphorus Pesticides** | | | | | | |
| Terbufos | 0.2 | mg/kg | - | < 0.2 | - | - |
| Tetrachlorvinphos | 0.2 | mg/kg | - | < 0.2 | - | - |
| Tokuthion | 0.2 | mg/kg | - | < 0.2 | - | - |
| Trichloronate | 0.2 | mg/kg | - | < 0.2 | - | - |
| Triphenylphosphate (surr.) | 1 | % | - | 82 | - | - |
| **Polychlorinated Biphenyls** | | | | | | |
| Aroclor-1016 | 0.1 | mg/kg | - | < 0.1 | - | - |
| Aroclor-1221 | 0.1 | mg/kg | - | < 0.1 | - | - |
| Aroclor-1232 | 0.1 | mg/kg | - | < 0.1 | - | - |
| Aroclor-1242 | 0.1 | mg/kg | - | < 0.1 | - | - |
| Aroclor-1248 | 0.1 | mg/kg | - | < 0.1 | - | - |
| Aroclor-1254 | 0.1 | mg/kg | - | < 0.1 | - | - |
| Aroclor-1260 | 0.1 | mg/kg | - | < 0.1 | - | - |
| Total PCB* | 0.1 | mg/kg | - | < 0.1 | - | - |
| Dibutylchlorendate (surr.) | 1 | % | - | 82 | - | - |
| Tetrachloro-m-xylene (surr.) | 1 | % | - | 89 | - | - |
| **Heavy Metals** | | | | | | |
| Arsenic | 2 | mg/kg | < 2 | 6.7 | 12 | 19 |
| Cadmium | 0.4 | mg/kg | < 0.4 | 0.6 | < 0.4 | < 0.4 |
| Chromium | 5 | mg/kg | 17 | 24 | 41 | 57 |
| Copper | 5 | mg/kg | 7.1 | 32 | 34 | 19 |
| Lead | 5 | mg/kg | 5.2 | 34 | 21 | 14 |
| Mercury | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Nickel | 5 | mg/kg | < 5 | 31 | 8.2 | 7.0 |
| Zinc | 5 | mg/kg | 6.2 | 62 | 21 | 15 |
| | | | | | | |
| % Moisture | 1 | % | 19 | 33 | 25 | 21 |
| **Acid Sulfate Soils Field pH Test** | | | | | | |
| pH-F (Field pH test)* | 0.1 | pH Units | 5.6 | - | 5.1 | 5.2 |
| pH-FOX (Field pH Peroxide test)* | 0.1 | pH Units | 4.6 | - | 3.7 | 4.5 |
| Reaction Ratings*[S05] | 0 | - | 1.0 | - | 2.0 | 1.0 |

| Client Sample ID | | | BH108_0-0.1 | BH108_1.0-1.2 | BH108_2.8-3.0 | BH109_0-0.1 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002962 | S22-Jn0002963 | S22-Jn0002964 | S22-Jn0002965 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Total Recoverable Hydrocarbons** | | | | | | |
| TRH C6-C9 | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH C10-C14 | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH C15-C28 | 50 | mg/kg | < 50 | < 50 | < 50 | < 50 |
| TRH C29-C36 | 50 | mg/kg | < 50 | < 50 | < 50 | < 50 |
| TRH C10-C36 (Total) | 50 | mg/kg | < 50 | < 50 | < 50 | < 50 |
| Naphthalene[N02] | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| TRH C6-C10 | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH C6-C10 less BTEX (F1)[N04] | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH >C10-C16 | 50 | mg/kg | < 50 | < 50 | < 50 | < 50 |
| TRH >C10-C16 less Naphthalene (F2)[N01] | 50 | mg/kg | < 50 | < 50 | < 50 | < 50 |

| Client Sample ID | | | BH108_0-0.1 | BH108_1.0-1.2 | BH108_2.8-3.0 | BH109_0-0.1 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002962 | S22-Jn0002963 | S22-Jn0002964 | S22-Jn0002965 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Total Recoverable Hydrocarbons** | | | | | | |
| TRH >C16-C34 | 100 | mg/kg | < 100 | < 100 | < 100 | < 100 |
| TRH >C34-C40 | 100 | mg/kg | < 100 | < 100 | < 100 | < 100 |
| TRH >C10-C40 (total)* | 100 | mg/kg | < 100 | < 100 | < 100 | < 100 |
| **BTEX** | | | | | | |
| Benzene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Toluene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Ethylbenzene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| m&p-Xylenes | 0.2 | mg/kg | < 0.2 | < 0.2 | < 0.2 | < 0.2 |
| o-Xylene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Xylenes - Total* | 0.3 | mg/kg | < 0.3 | < 0.3 | < 0.3 | < 0.3 |
| 4-Bromofluorobenzene (surr.) | 1 | % | 81 | 93 | 91 | 85 |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | |
| Benzo(a)pyrene TEQ (lower bound) * | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(a)pyrene TEQ (medium bound) * | 0.5 | mg/kg | 0.6 | 0.6 | 0.6 | 0.6 |
| Benzo(a)pyrene TEQ (upper bound) * | 0.5 | mg/kg | 1.2 | 1.2 | 1.2 | 1.2 |
| Acenaphthene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Acenaphthylene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Anthracene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benz(a)anthracene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(a)pyrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(b&j)fluoranthene[N07] | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(g.h.i)perylene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(k)fluoranthene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Chrysene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Dibenz(a.h)anthracene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Fluoranthene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Fluorene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Indeno(1.2.3-cd)pyrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Naphthalene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Phenanthrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Pyrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Total PAH* | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 2-Fluorobiphenyl (surr.) | 1 | % | 82 | 101 | 68 | 76 |
| p-Terphenyl-d14 (surr.) | 1 | % | 83 | 129 | 120 | 109 |
| **Organochlorine Pesticides** | | | | | | |
| Chlordanes - Total | 0.1 | mg/kg | < 0.1 | - | - | < 0.1 |
| 4.4'-DDD | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| 4.4'-DDE | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| 4.4'-DDT | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| a-HCH | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Aldrin | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| b-HCH | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| d-HCH | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Dieldrin | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Endosulfan I | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Endosulfan II | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Endosulfan sulphate | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Endrin | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Endrin aldehyde | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |

| Client Sample ID | | | BH108_0-0.1 | BH108_1.0-1.2 | BH108_2.8-3.0 | BH109_0-0.1 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002962 | S22-Jn0002963 | S22-Jn0002964 | S22-Jn0002965 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Organochlorine Pesticides** | | | | | | |
| Endrin ketone | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| g-HCH (Lindane) | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Heptachlor | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Heptachlor epoxide | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Hexachlorobenzene | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Methoxychlor | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Toxaphene | 0.5 | mg/kg | < 0.5 | - | - | < 0.5 |
| Aldrin and Dieldrin (Total)* | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| DDT + DDE + DDD (Total)* | 0.05 | mg/kg | < 0.05 | - | - | < 0.05 |
| Vic EPA IWRG 621 OCP (Total)* | 0.1 | mg/kg | < 0.1 | - | - | < 0.1 |
| Vic EPA IWRG 621 Other OCP (Total)* | 0.1 | mg/kg | < 0.1 | - | - | < 0.1 |
| Dibutylchlorendate (surr.) | 1 | % | 88 | - | - | 110 |
| Tetrachloro-m-xylene (surr.) | 1 | % | 88 | - | - | 84 |
| **Organophosphorus Pesticides** | | | | | | |
| Azinphos-methyl | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Bolstar | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Chlorfenvinphos | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Chlorpyrifos | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Chlorpyrifos-methyl | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Coumaphos | 2 | mg/kg | < 2 | - | - | < 2 |
| Demeton-S | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Demeton-O | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Diazinon | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Dichlorvos | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Dimethoate | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Disulfoton | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| EPN | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Ethion | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Ethoprop | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Ethyl parathion | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Fenitrothion | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Fensulfothion | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Fenthion | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Malathion | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Merphos | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Methyl parathion | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Mevinphos | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Monocrotophos | 2 | mg/kg | < 2 | - | - | < 2 |
| Naled | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Omethoate | 2 | mg/kg | < 2 | - | - | < 2 |
| Phorate | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Pirimiphos-methyl | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Pyrazophos | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Ronnel | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Terbufos | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Tetrachlorvinphos | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Tokuthion | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Trichloronate | 0.2 | mg/kg | < 0.2 | - | - | < 0.2 |
| Triphenylphosphate (surr.) | 1 | % | 94 | - | - | 105 |

| Client Sample ID | | | BH108_0-0.1 | BH108_1.0-1.2 | BH108_2.8-3.0 | BH109_0-0.1 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002962 | S22-Jn0002963 | S22-Jn0002964 | S22-Jn0002965 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Polychlorinated Biphenyls** | | | | | | |
| Aroclor-1016 | 0.1 | mg/kg | < 0.1 | - | - | < 0.1 |
| Aroclor-1221 | 0.1 | mg/kg | < 0.1 | - | - | < 0.1 |
| Aroclor-1232 | 0.1 | mg/kg | < 0.1 | - | - | < 0.1 |
| Aroclor-1242 | 0.1 | mg/kg | < 0.1 | - | - | < 0.1 |
| Aroclor-1248 | 0.1 | mg/kg | < 0.1 | - | - | < 0.1 |
| Aroclor-1254 | 0.1 | mg/kg | < 0.1 | - | - | < 0.1 |
| Aroclor-1260 | 0.1 | mg/kg | < 0.1 | - | - | < 0.1 |
| Total PCB* | 0.1 | mg/kg | < 0.1 | - | - | < 0.1 |
| Dibutylchlorendate (surr.) | 1 | % | 88 | - | - | 110 |
| Tetrachloro-m-xylene (surr.) | 1 | % | 88 | - | - | 84 |
| **Heavy Metals** | | | | | | |
| Arsenic | 2 | mg/kg | 5.9 | < 2 | 4.4 | 3.8 |
| Cadmium | 0.4 | mg/kg | 0.5 | < 0.4 | < 0.4 | < 0.4 |
| Chromium | 5 | mg/kg | 18 | 23 | 20 | 15 |
| Copper | 5 | mg/kg | 25 | 10 | 16 | 15 |
| Lead | 5 | mg/kg | 30 | 11 | 11 | 17 |
| Mercury | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Nickel | 5 | mg/kg | 15 | 6.4 | < 5 | 11 |
| Zinc | 5 | mg/kg | 86 | 15 | 12 | 45 |
| | | | | | | |
| % Moisture | 1 | % | 28 | 21 | 19 | 30 |
| **Acid Sulfate Soils Field pH Test** | | | | | | |
| pH-F (Field pH test)* | 0.1 | pH Units | - | 5.1 | 5.1 | - |
| pH-FOX (Field pH Peroxide test)* | 0.1 | pH Units | - | 3.9 | 4.4 | - |
| Reaction Ratings*[S05] | 0 | - | - | 1.0 | 2.0 | - |

| Client Sample ID | | | BH109_1.0-1.2 | BH109_2.8-3.0 | BH1010_0-0.1 | BH1010_0.5-0.6 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002966 | S22-Jn0002967 | S22-Jn0002968 | S22-Jn0002969 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Total Recoverable Hydrocarbons** | | | | | | |
| TRH C6-C9 | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH C10-C14 | 20 | mg/kg | < 20 | < 20 | 22 | < 20 |
| TRH C15-C28 | 50 | mg/kg | < 50 | < 50 | 74 | < 50 |
| TRH C29-C36 | 50 | mg/kg | < 50 | < 50 | 57 | 59 |
| TRH C10-C36 (Total) | 50 | mg/kg | < 50 | < 50 | 153 | 59 |
| Naphthalene[N02] | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| TRH C6-C10 | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH C6-C10 less BTEX (F1)[N04] | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH >C10-C16 | 50 | mg/kg | < 50 | < 50 | < 50 | < 50 |
| TRH >C10-C16 less Naphthalene (F2)[N01] | 50 | mg/kg | < 50 | < 50 | < 50 | < 50 |
| TRH >C16-C34 | 100 | mg/kg | < 100 | < 100 | 100 | < 100 |
| TRH >C34-C40 | 100 | mg/kg | < 100 | < 100 | < 100 | < 100 |
| TRH >C10-C40 (total)* | 100 | mg/kg | < 100 | < 100 | 100 | < 100 |

| Client Sample ID | | | BH109_1.0-1.2 | BH109_2.8-3.0 | BH1010_0-0.1 | BH1010_0.5-0.6 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002966 | S22-Jn0002967 | S22-Jn0002968 | S22-Jn0002969 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **BTEX** | | | | | | |
| Benzene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Toluene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Ethylbenzene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| m&p-Xylenes | 0.2 | mg/kg | < 0.2 | < 0.2 | < 0.2 | < 0.2 |
| o-Xylene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Xylenes - Total* | 0.3 | mg/kg | < 0.3 | < 0.3 | < 0.3 | < 0.3 |
| 4-Bromofluorobenzene (surr.) | 1 | % | 98 | 95 | 90 | 94 |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | |
| Benzo(a)pyrene TEQ (lower bound) * | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(a)pyrene TEQ (medium bound) * | 0.5 | mg/kg | 0.6 | 0.6 | 0.6 | 0.6 |
| Benzo(a)pyrene TEQ (upper bound) * | 0.5 | mg/kg | 1.2 | 1.2 | 1.2 | 1.2 |
| Acenaphthene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Acenaphthylene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Anthracene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benz(a)anthracene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(a)pyrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(b&j)fluoranthene[N07] | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(g.h.i)perylene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(k)fluoranthene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Chrysene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Dibenz(a.h)anthracene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Fluoranthene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Fluorene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Indeno(1.2.3-cd)pyrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Naphthalene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Phenanthrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Pyrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Total PAH* | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 2-Fluorobiphenyl (surr.) | 1 | % | 64 | 72 | 73 | 65 |
| p-Terphenyl-d14 (surr.) | 1 | % | 113 | 101 | 105 | 101 |
| **Organochlorine Pesticides** | | | | | | |
| Chlordanes - Total | 0.1 | mg/kg | - | - | < 0.1 | - |
| 4.4'-DDD | 0.05 | mg/kg | - | - | < 0.05 | - |
| 4.4'-DDE | 0.05 | mg/kg | - | - | < 0.05 | - |
| 4.4'-DDT | 0.05 | mg/kg | - | - | < 0.05 | - |
| a-HCH | 0.05 | mg/kg | - | - | < 0.05 | - |
| Aldrin | 0.05 | mg/kg | - | - | < 0.05 | - |
| b-HCH | 0.05 | mg/kg | - | - | < 0.05 | - |
| d-HCH | 0.05 | mg/kg | - | - | < 0.05 | - |
| Dieldrin | 0.05 | mg/kg | - | - | < 0.05 | - |
| Endosulfan I | 0.05 | mg/kg | - | - | < 0.05 | - |
| Endosulfan II | 0.05 | mg/kg | - | - | < 0.05 | - |
| Endosulfan sulphate | 0.05 | mg/kg | - | - | < 0.05 | - |
| Endrin | 0.05 | mg/kg | - | - | < 0.05 | - |
| Endrin aldehyde | 0.05 | mg/kg | - | - | < 0.05 | - |
| Endrin ketone | 0.05 | mg/kg | - | - | < 0.05 | - |
| g-HCH (Lindane) | 0.05 | mg/kg | - | - | < 0.05 | - |
| Heptachlor | 0.05 | mg/kg | - | - | < 0.05 | - |
| Heptachlor epoxide | 0.05 | mg/kg | - | - | < 0.05 | - |

| Client Sample ID | | | BH109_1.0-1.2 | BH109_2.8-3.0 | BH1010_0-0.1 | BH1010_0.5-0.6 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002966 | S22-Jn0002967 | S22-Jn0002968 | S22-Jn0002969 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Organochlorine Pesticides** | | | | | | |
| Hexachlorobenzene | 0.05 | mg/kg | - | - | < 0.05 | - |
| Methoxychlor | 0.05 | mg/kg | - | - | < 0.05 | - |
| Toxaphene | 0.5 | mg/kg | - | - | < 0.5 | - |
| Aldrin and Dieldrin (Total)* | 0.05 | mg/kg | - | - | < 0.05 | - |
| DDT + DDE + DDD (Total)* | 0.05 | mg/kg | - | - | < 0.05 | - |
| Vic EPA IWRG 621 OCP (Total)* | 0.1 | mg/kg | - | - | < 0.1 | - |
| Vic EPA IWRG 621 Other OCP (Total)* | 0.1 | mg/kg | - | - | < 0.1 | - |
| Dibutylchlorendate (surr.) | 1 | % | - | - | 109 | - |
| Tetrachloro-m-xylene (surr.) | 1 | % | - | - | 92 | - |
| **Organophosphorus Pesticides** | | | | | | |
| Azinphos-methyl | 0.2 | mg/kg | - | - | < 0.2 | - |
| Bolstar | 0.2 | mg/kg | - | - | < 0.2 | - |
| Chlorfenvinphos | 0.2 | mg/kg | - | - | < 0.2 | - |
| Chlorpyrifos | 0.2 | mg/kg | - | - | < 0.2 | - |
| Chlorpyrifos-methyl | 0.2 | mg/kg | - | - | < 0.2 | - |
| Coumaphos | 2 | mg/kg | - | - | < 2 | - |
| Demeton-S | 0.2 | mg/kg | - | - | < 0.2 | - |
| Demeton-O | 0.2 | mg/kg | - | - | < 0.2 | - |
| Diazinon | 0.2 | mg/kg | - | - | < 0.2 | - |
| Dichlorvos | 0.2 | mg/kg | - | - | < 0.2 | - |
| Dimethoate | 0.2 | mg/kg | - | - | < 0.2 | - |
| Disulfoton | 0.2 | mg/kg | - | - | < 0.2 | - |
| EPN | 0.2 | mg/kg | - | - | < 0.2 | - |
| Ethion | 0.2 | mg/kg | - | - | < 0.2 | - |
| Ethoprop | 0.2 | mg/kg | - | - | < 0.2 | - |
| Ethyl parathion | 0.2 | mg/kg | - | - | < 0.2 | - |
| Fenitrothion | 0.2 | mg/kg | - | - | < 0.2 | - |
| Fensulfothion | 0.2 | mg/kg | - | - | < 0.2 | - |
| Fenthion | 0.2 | mg/kg | - | - | < 0.2 | - |
| Malathion | 0.2 | mg/kg | - | - | < 0.2 | - |
| Merphos | 0.2 | mg/kg | - | - | < 0.2 | - |
| Methyl parathion | 0.2 | mg/kg | - | - | < 0.2 | - |
| Mevinphos | 0.2 | mg/kg | - | - | < 0.2 | - |
| Monocrotophos | 2 | mg/kg | - | - | < 2 | - |
| Naled | 0.2 | mg/kg | - | - | < 0.2 | - |
| Omethoate | 2 | mg/kg | - | - | < 2 | - |
| Phorate | 0.2 | mg/kg | - | - | < 0.2 | - |
| Pirimiphos-methyl | 0.2 | mg/kg | - | - | < 0.2 | - |
| Pyrazophos | 0.2 | mg/kg | - | - | < 0.2 | - |
| Ronnel | 0.2 | mg/kg | - | - | < 0.2 | - |
| Terbufos | 0.2 | mg/kg | - | - | < 0.2 | - |
| Tetrachlorvinphos | 0.2 | mg/kg | - | - | < 0.2 | - |
| Tokuthion | 0.2 | mg/kg | - | - | < 0.2 | - |
| Trichloronate | 0.2 | mg/kg | - | - | < 0.2 | - |
| Triphenylphosphate (surr.) | 1 | % | - | - | 106 | - |

| Client Sample ID | | | BH109_1.0-1.2 | BH109_2.8-3.0 | BH1010_0-0.1 | BH1010_0.5-0.6 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002966 | S22-Jn0002967 | S22-Jn0002968 | S22-Jn0002969 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Polychlorinated Biphenyls** | | | | | | |
| Aroclor-1016 | 0.1 | mg/kg | - | - | < 0.1 | - |
| Aroclor-1221 | 0.1 | mg/kg | - | - | < 0.1 | - |
| Aroclor-1232 | 0.1 | mg/kg | - | - | < 0.1 | - |
| Aroclor-1242 | 0.1 | mg/kg | - | - | < 0.1 | - |
| Aroclor-1248 | 0.1 | mg/kg | - | - | < 0.1 | - |
| Aroclor-1254 | 0.1 | mg/kg | - | - | < 0.1 | - |
| Aroclor-1260 | 0.1 | mg/kg | - | - | < 0.1 | - |
| Total PCB* | 0.1 | mg/kg | - | - | < 0.1 | - |
| Dibutylchlorendate (surr.) | 1 | % | - | - | 109 | - |
| Tetrachloro-m-xylene (surr.) | 1 | % | - | - | 92 | - |
| **Heavy Metals** | | | | | | |
| Arsenic | 2 | mg/kg | 8.6 | 4.9 | 4.3 | 3.9 |
| Cadmium | 0.4 | mg/kg | < 0.4 | < 0.4 | < 0.4 | < 0.4 |
| Chromium | 5 | mg/kg | 40 | 36 | 17 | 27 |
| Copper | 5 | mg/kg | 29 | 16 | 19 | 17 |
| Lead | 5 | mg/kg | 14 | 12 | 28 | 11 |
| Mercury | 0.1 | mg/kg | < 0.1 | < 0.1 | 0.2 | < 0.1 |
| Nickel | 5 | mg/kg | 6.5 | 5.4 | 17 | 7.0 |
| Zinc | 5 | mg/kg | 18 | 13 | 75 | 15 |
| | | | | | | |
| % Moisture | 1 | % | 22 | 20 | 28 | 26 |
| **Acid Sulfate Soils Field pH Test** | | | | | | |
| pH-F (Field pH test)* | 0.1 | pH Units | 4.5 | 4.7 | - | - |
| pH-FOX (Field pH Peroxide test)* | 0.1 | pH Units | 3.3 | 4.0 | - | - |
| Reaction Ratings*[S05] | 0 | - | 1.0 | 1.0 | - | - |

| Client Sample ID | | | BH1011_0-0.1 | BH1011_1.0-1.2 | BH1011_2.8-3.0 | BH1013_0-0.1 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002970 | S22-Jn0002971 | S22-Jn0002972 | S22-Jn0002973 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Total Recoverable Hydrocarbons** | | | | | | |
| TRH C6-C9 | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH C10-C14 | 20 | mg/kg | < 20 | < 20 | < 20 | 23 |
| TRH C15-C28 | 50 | mg/kg | 81 | < 50 | < 50 | 86 |
| TRH C29-C36 | 50 | mg/kg | 99 | < 50 | < 50 | 96 |
| TRH C10-C36 (Total) | 50 | mg/kg | 180 | < 50 | < 50 | 205 |
| Naphthalene[N02] | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| TRH C6-C10 | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH C6-C10 less BTEX (F1)[N04] | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH >C10-C16 | 50 | mg/kg | < 50 | < 50 | < 50 | < 50 |
| TRH >C10-C16 less Naphthalene (F2)[N01] | 50 | mg/kg | < 50 | < 50 | < 50 | < 50 |
| TRH >C16-C34 | 100 | mg/kg | 140 | < 100 | < 100 | 140 |
| TRH >C34-C40 | 100 | mg/kg | < 100 | < 100 | < 100 | < 100 |
| TRH >C10-C40 (total)* | 100 | mg/kg | 140 | < 100 | < 100 | 140 |

| Client Sample ID | | | BH1011_0-0.1 | BH1011_1.0-1.2 | BH1011_2.8-3.0 | BH1013_0-0.1 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002970 | S22-Jn0002971 | S22-Jn0002972 | S22-Jn0002973 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **BTEX** | | | | | | |
| Benzene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Toluene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Ethylbenzene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| m&p-Xylenes | 0.2 | mg/kg | < 0.2 | < 0.2 | < 0.2 | < 0.2 |
| o-Xylene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Xylenes - Total* | 0.3 | mg/kg | < 0.3 | < 0.3 | < 0.3 | < 0.3 |
| 4-Bromofluorobenzene (surr.) | 1 | % | 98 | 95 | 80 | 71 |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | |
| Benzo(a)pyrene TEQ (lower bound) * | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(a)pyrene TEQ (medium bound) * | 0.5 | mg/kg | 0.6 | 0.6 | 0.6 | 0.6 |
| Benzo(a)pyrene TEQ (upper bound) * | 0.5 | mg/kg | 1.2 | 1.2 | 1.2 | 1.2 |
| Acenaphthene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Acenaphthylene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Anthracene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benz(a)anthracene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(a)pyrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(b&j)fluoranthene[N07] | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(g.h.i)perylene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(k)fluoranthene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Chrysene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Dibenz(a.h)anthracene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Fluoranthene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Fluorene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Indeno(1.2.3-cd)pyrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Naphthalene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Phenanthrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Pyrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Total PAH* | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 2-Fluorobiphenyl (surr.) | 1 | % | 68 | 70 | 68 | 70 |
| p-Terphenyl-d14 (surr.) | 1 | % | 112 | 116 | 111 | 113 |
| **Organochlorine Pesticides** | | | | | | |
| Chlordanes - Total | 0.1 | mg/kg | < 0.1 | - | - | - |
| 4.4'-DDD | 0.05 | mg/kg | < 0.05 | - | - | - |
| 4.4'-DDE | 0.05 | mg/kg | < 0.05 | - | - | - |
| 4.4'-DDT | 0.05 | mg/kg | < 0.05 | - | - | - |
| a-HCH | 0.05 | mg/kg | < 0.05 | - | - | - |
| Aldrin | 0.05 | mg/kg | < 0.05 | - | - | - |
| b-HCH | 0.05 | mg/kg | < 0.05 | - | - | - |
| d-HCH | 0.05 | mg/kg | < 0.05 | - | - | - |
| Dieldrin | 0.05 | mg/kg | < 0.05 | - | - | - |
| Endosulfan I | 0.05 | mg/kg | < 0.05 | - | - | - |
| Endosulfan II | 0.05 | mg/kg | < 0.05 | - | - | - |
| Endosulfan sulphate | 0.05 | mg/kg | < 0.05 | - | - | - |
| Endrin | 0.05 | mg/kg | < 0.05 | - | - | - |
| Endrin aldehyde | 0.05 | mg/kg | < 0.05 | - | - | - |
| Endrin ketone | 0.05 | mg/kg | < 0.05 | - | - | - |
| g-HCH (Lindane) | 0.05 | mg/kg | < 0.05 | - | - | - |
| Heptachlor | 0.05 | mg/kg | < 0.05 | - | - | - |
| Heptachlor epoxide | 0.05 | mg/kg | < 0.05 | - | - | - |

| Client Sample ID | | | BH1011_0-0.1 | BH1011_1.0-1.2 | BH1011_2.8-3.0 | BH1013_0-0.1 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002970 | S22-Jn0002971 | S22-Jn0002972 | S22-Jn0002973 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Organochlorine Pesticides** | | | | | | |
| Hexachlorobenzene | 0.05 | mg/kg | < 0.05 | - | - | - |
| Methoxychlor | 0.05 | mg/kg | < 0.05 | - | - | - |
| Toxaphene | 0.5 | mg/kg | < 0.5 | - | - | - |
| Aldrin and Dieldrin (Total)* | 0.05 | mg/kg | < 0.05 | - | - | - |
| DDT + DDE + DDD (Total)* | 0.05 | mg/kg | < 0.05 | - | - | - |
| Vic EPA IWRG 621 OCP (Total)* | 0.1 | mg/kg | < 0.1 | - | - | - |
| Vic EPA IWRG 621 Other OCP (Total)* | 0.1 | mg/kg | < 0.1 | - | - | - |
| Dibutylchlorendate (surr.) | 1 | % | 104 | - | - | - |
| Tetrachloro-m-xylene (surr.) | 1 | % | 91 | - | - | - |
| **Organophosphorus Pesticides** | | | | | | |
| Azinphos-methyl | 0.2 | mg/kg | < 0.2 | - | - | - |
| Bolstar | 0.2 | mg/kg | < 0.2 | - | - | - |
| Chlorfenvinphos | 0.2 | mg/kg | < 0.2 | - | - | - |
| Chlorpyrifos | 0.2 | mg/kg | < 0.2 | - | - | - |
| Chlorpyrifos-methyl | 0.2 | mg/kg | < 0.2 | - | - | - |
| Coumaphos | 2 | mg/kg | < 2 | - | - | - |
| Demeton-S | 0.2 | mg/kg | < 0.2 | - | - | - |
| Demeton-O | 0.2 | mg/kg | < 0.2 | - | - | - |
| Diazinon | 0.2 | mg/kg | < 0.2 | - | - | - |
| Dichlorvos | 0.2 | mg/kg | < 0.2 | - | - | - |
| Dimethoate | 0.2 | mg/kg | < 0.2 | - | - | - |
| Disulfoton | 0.2 | mg/kg | < 0.2 | - | - | - |
| EPN | 0.2 | mg/kg | < 0.2 | - | - | - |
| Ethion | 0.2 | mg/kg | < 0.2 | - | - | - |
| Ethoprop | 0.2 | mg/kg | < 0.2 | - | - | - |
| Ethyl parathion | 0.2 | mg/kg | < 0.2 | - | - | - |
| Fenitrothion | 0.2 | mg/kg | < 0.2 | - | - | - |
| Fensulfothion | 0.2 | mg/kg | < 0.2 | - | - | - |
| Fenthion | 0.2 | mg/kg | < 0.2 | - | - | - |
| Malathion | 0.2 | mg/kg | < 0.2 | - | - | - |
| Merphos | 0.2 | mg/kg | < 0.2 | - | - | - |
| Methyl parathion | 0.2 | mg/kg | < 0.2 | - | - | - |
| Mevinphos | 0.2 | mg/kg | < 0.2 | - | - | - |
| Monocrotophos | 2 | mg/kg | < 2 | - | - | - |
| Naled | 0.2 | mg/kg | < 0.2 | - | - | - |
| Omethoate | 2 | mg/kg | < 2 | - | - | - |
| Phorate | 0.2 | mg/kg | < 0.2 | - | - | - |
| Pirimiphos-methyl | 0.2 | mg/kg | < 0.2 | - | - | - |
| Pyrazophos | 0.2 | mg/kg | < 0.2 | - | - | - |
| Ronnel | 0.2 | mg/kg | < 0.2 | - | - | - |
| Terbufos | 0.2 | mg/kg | < 0.2 | - | - | - |
| Tetrachlorvinphos | 0.2 | mg/kg | < 0.2 | - | - | - |
| Tokuthion | 0.2 | mg/kg | < 0.2 | - | - | - |
| Trichloronate | 0.2 | mg/kg | < 0.2 | - | - | - |
| Triphenylphosphate (surr.) | 1 | % | 102 | - | - | - |

| Client Sample ID | | | BH1011_0-0.1 | BH1011_1.0-1.2 | BH1011_2.8-3.0 | BH1013_0-0.1 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002970 | S22-Jn0002971 | S22-Jn0002972 | S22-Jn0002973 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Polychlorinated Biphenyls** | | | | | | |
| Aroclor-1016 | 0.1 | mg/kg | < 0.1 | - | - | - |
| Aroclor-1221 | 0.1 | mg/kg | < 0.1 | - | - | - |
| Aroclor-1232 | 0.1 | mg/kg | < 0.1 | - | - | - |
| Aroclor-1242 | 0.1 | mg/kg | < 0.1 | - | - | - |
| Aroclor-1248 | 0.1 | mg/kg | < 0.1 | - | - | - |
| Aroclor-1254 | 0.1 | mg/kg | < 0.1 | - | - | - |
| Aroclor-1260 | 0.1 | mg/kg | < 0.1 | - | - | - |
| Total PCB* | 0.1 | mg/kg | < 0.1 | - | - | - |
| Dibutylchlorendate (surr.) | 1 | % | 104 | - | - | - |
| Tetrachloro-m-xylene (surr.) | 1 | % | 91 | - | - | - |
| **Heavy Metals** | | | | | | |
| Arsenic | 2 | mg/kg | 3.7 | 3.0 | 6.6 | 4.4 |
| Cadmium | 0.4 | mg/kg | < 0.4 | < 0.4 | < 0.4 | < 0.4 |
| Chromium | 5 | mg/kg | 12 | 24 | 28 | 12 |
| Copper | 5 | mg/kg | 16 | 16 | 26 | 12 |
| Lead | 5 | mg/kg | 23 | 10 | 15 | 19 |
| Mercury | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Nickel | 5 | mg/kg | 8.5 | 8.9 | 14 | 9.8 |
| Zinc | 5 | mg/kg | 61 | 18 | 30 | 56 |
| | | | | | | |
| % Moisture | 1 | % | 26 | 23 | 22 | 35 |
| **Acid Sulfate Soils Field pH Test** | | | | | | |
| pH-F (Field pH test)* | 0.1 | pH Units | - | 5.3 | 5.2 | - |
| pH-FOX (Field pH Peroxide test)* | 0.1 | pH Units | - | 3.9 | 4.3 | - |
| Reaction Ratings*[S05] | 0 | - | - | 2.0 | 1.0 | - |

| Client Sample ID | | | BH1013_1.0-1.2 | BH1013_2.8-3.0 | BH1014_0-0.1 | BH1014_0.8-0.9 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002974 | S22-Jn0002975 | S22-Jn0002976 | S22-Jn0002977 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Total Recoverable Hydrocarbons** | | | | | | |
| TRH C6-C9 | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH C10-C14 | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH C15-C28 | 50 | mg/kg | < 50 | < 50 | 75 | < 50 |
| TRH C29-C36 | 50 | mg/kg | < 50 | < 50 | 75 | < 50 |
| TRH C10-C36 (Total) | 50 | mg/kg | < 50 | < 50 | 150 | < 50 |
| Naphthalene[N02] | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| TRH C6-C10 | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH C6-C10 less BTEX (F1)[N04] | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH >C10-C16 | 50 | mg/kg | < 50 | < 50 | < 50 | < 50 |
| TRH >C10-C16 less Naphthalene (F2)[N01] | 50 | mg/kg | < 50 | < 50 | < 50 | < 50 |
| TRH >C16-C34 | 100 | mg/kg | < 100 | < 100 | 120 | < 100 |
| TRH >C34-C40 | 100 | mg/kg | < 100 | < 100 | < 100 | < 100 |
| TRH >C10-C40 (total)* | 100 | mg/kg | < 100 | < 100 | 120 | < 100 |

| Client Sample ID | | | BH1013_1.0-1.2 | BH1013_2.8-3.0 | BH1014_0-0.1 | BH1014_0.8-0.9 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002974 | S22-Jn0002975 | S22-Jn0002976 | S22-Jn0002977 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **BTEX** | | | | | | |
| Benzene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Toluene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Ethylbenzene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| m&p-Xylenes | 0.2 | mg/kg | < 0.2 | < 0.2 | < 0.2 | < 0.2 |
| o-Xylene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Xylenes - Total* | 0.3 | mg/kg | < 0.3 | < 0.3 | < 0.3 | < 0.3 |
| 4-Bromofluorobenzene (surr.) | 1 | % | 76 | 105 | 93 | 98 |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | |
| Benzo(a)pyrene TEQ (lower bound) * | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(a)pyrene TEQ (medium bound) * | 0.5 | mg/kg | 0.6 | 0.6 | 0.6 | 0.6 |
| Benzo(a)pyrene TEQ (upper bound) * | 0.5 | mg/kg | 1.2 | 1.2 | 1.2 | 1.2 |
| Acenaphthene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Acenaphthylene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Anthracene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benz(a)anthracene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(a)pyrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(b&j)fluoranthene[N07] | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(g.h.i)perylene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzo(k)fluoranthene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Chrysene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Dibenz(a.h)anthracene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Fluoranthene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Fluorene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Indeno(1.2.3-cd)pyrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Naphthalene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Phenanthrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Pyrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Total PAH* | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 2-Fluorobiphenyl (surr.) | 1 | % | 68 | 65 | 70 | 69 |
| p-Terphenyl-d14 (surr.) | 1 | % | 103 | 93 | 105 | 92 |
| **Organochlorine Pesticides** | | | | | | |
| Chlordanes - Total | 0.1 | mg/kg | - | - | < 0.1 | - |
| 4.4'-DDD | 0.05 | mg/kg | - | - | < 0.05 | - |
| 4.4'-DDE | 0.05 | mg/kg | - | - | < 0.05 | - |
| 4.4'-DDT | 0.05 | mg/kg | - | - | < 0.05 | - |
| a-HCH | 0.05 | mg/kg | - | - | < 0.05 | - |
| Aldrin | 0.05 | mg/kg | - | - | < 0.05 | - |
| b-HCH | 0.05 | mg/kg | - | - | < 0.05 | - |
| d-HCH | 0.05 | mg/kg | - | - | < 0.05 | - |
| Dieldrin | 0.05 | mg/kg | - | - | < 0.05 | - |
| Endosulfan I | 0.05 | mg/kg | - | - | < 0.05 | - |
| Endosulfan II | 0.05 | mg/kg | - | - | < 0.05 | - |
| Endosulfan sulphate | 0.05 | mg/kg | - | - | < 0.05 | - |
| Endrin | 0.05 | mg/kg | - | - | < 0.05 | - |
| Endrin aldehyde | 0.05 | mg/kg | - | - | < 0.05 | - |
| Endrin ketone | 0.05 | mg/kg | - | - | < 0.05 | - |
| g-HCH (Lindane) | 0.05 | mg/kg | - | - | < 0.05 | - |
| Heptachlor | 0.05 | mg/kg | - | - | < 0.05 | - |
| Heptachlor epoxide | 0.05 | mg/kg | - | - | < 0.05 | - |

| Client Sample ID | | | BH1013_1.0-1.2 | BH1013_2.8-3.0 | BH1014_0-0.1 | BH1014_0.8-0.9 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002974 | S22-Jn0002975 | S22-Jn0002976 | S22-Jn0002977 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Organochlorine Pesticides** | | | | | | |
| Hexachlorobenzene | 0.05 | mg/kg | - | - | < 0.05 | - |
| Methoxychlor | 0.05 | mg/kg | - | - | < 0.05 | - |
| Toxaphene | 0.5 | mg/kg | - | - | < 0.5 | - |
| Aldrin and Dieldrin (Total)* | 0.05 | mg/kg | - | - | < 0.05 | - |
| DDT + DDE + DDD (Total)* | 0.05 | mg/kg | - | - | < 0.05 | - |
| Vic EPA IWRG 621 OCP (Total)* | 0.1 | mg/kg | - | - | < 0.1 | - |
| Vic EPA IWRG 621 Other OCP (Total)* | 0.1 | mg/kg | - | - | < 0.1 | - |
| Dibutylchlorendate (surr.) | 1 | % | - | - | 101 | - |
| Tetrachloro-m-xylene (surr.) | 1 | % | - | - | 78 | - |
| **Organophosphorus Pesticides** | | | | | | |
| Azinphos-methyl | 0.2 | mg/kg | - | - | < 0.2 | - |
| Bolstar | 0.2 | mg/kg | - | - | < 0.2 | - |
| Chlorfenvinphos | 0.2 | mg/kg | - | - | < 0.2 | - |
| Chlorpyrifos | 0.2 | mg/kg | - | - | < 0.2 | - |
| Chlorpyrifos-methyl | 0.2 | mg/kg | - | - | < 0.2 | - |
| Coumaphos | 2 | mg/kg | - | - | < 2 | - |
| Demeton-S | 0.2 | mg/kg | - | - | < 0.2 | - |
| Demeton-O | 0.2 | mg/kg | - | - | < 0.2 | - |
| Diazinon | 0.2 | mg/kg | - | - | < 0.2 | - |
| Dichlorvos | 0.2 | mg/kg | - | - | < 0.2 | - |
| Dimethoate | 0.2 | mg/kg | - | - | < 0.2 | - |
| Disulfoton | 0.2 | mg/kg | - | - | < 0.2 | - |
| EPN | 0.2 | mg/kg | - | - | < 0.2 | - |
| Ethion | 0.2 | mg/kg | - | - | < 0.2 | - |
| Ethoprop | 0.2 | mg/kg | - | - | < 0.2 | - |
| Ethyl parathion | 0.2 | mg/kg | - | - | < 0.2 | - |
| Fenitrothion | 0.2 | mg/kg | - | - | < 0.2 | - |
| Fensulfothion | 0.2 | mg/kg | - | - | < 0.2 | - |
| Fenthion | 0.2 | mg/kg | - | - | < 0.2 | - |
| Malathion | 0.2 | mg/kg | - | - | < 0.2 | - |
| Merphos | 0.2 | mg/kg | - | - | < 0.2 | - |
| Methyl parathion | 0.2 | mg/kg | - | - | < 0.2 | - |
| Mevinphos | 0.2 | mg/kg | - | - | < 0.2 | - |
| Monocrotophos | 2 | mg/kg | - | - | < 2 | - |
| Naled | 0.2 | mg/kg | - | - | < 0.2 | - |
| Omethoate | 2 | mg/kg | - | - | < 2 | - |
| Phorate | 0.2 | mg/kg | - | - | < 0.2 | - |
| Pirimiphos-methyl | 0.2 | mg/kg | - | - | < 0.2 | - |
| Pyrazophos | 0.2 | mg/kg | - | - | < 0.2 | - |
| Ronnel | 0.2 | mg/kg | - | - | < 0.2 | - |
| Terbufos | 0.2 | mg/kg | - | - | < 0.2 | - |
| Tetrachlorvinphos | 0.2 | mg/kg | - | - | < 0.2 | - |
| Tokuthion | 0.2 | mg/kg | - | - | < 0.2 | - |
| Trichloronate | 0.2 | mg/kg | - | - | < 0.2 | - |
| Triphenylphosphate (surr.) | 1 | % | - | - | 88 | - |

| Client Sample ID | | | BH1013_1.0-1.2 | BH1013_2.8-3.0 | BH1014_0-0.1 | BH1014_0.8-0.9 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002974 | S22-Jn0002975 | S22-Jn0002976 | S22-Jn0002977 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Polychlorinated Biphenyls** | | | | | | |
| Aroclor-1016 | 0.1 | mg/kg | - | - | < 0.1 | - |
| Aroclor-1221 | 0.1 | mg/kg | - | - | < 0.1 | - |
| Aroclor-1232 | 0.1 | mg/kg | - | - | < 0.1 | - |
| Aroclor-1242 | 0.1 | mg/kg | - | - | < 0.1 | - |
| Aroclor-1248 | 0.1 | mg/kg | - | - | < 0.1 | - |
| Aroclor-1254 | 0.1 | mg/kg | - | - | < 0.1 | - |
| Aroclor-1260 | 0.1 | mg/kg | - | - | < 0.1 | - |
| Total PCB* | 0.1 | mg/kg | - | - | < 0.1 | - |
| Dibutylchlorendate (surr.) | 1 | % | - | - | 101 | - |
| Tetrachloro-m-xylene (surr.) | 1 | % | - | - | 78 | - |
| **Heavy Metals** | | | | | | |
| Arsenic | 2 | mg/kg | 11 | < 2 | 5.6 | 5.4 |
| Cadmium | 0.4 | mg/kg | < 0.4 | < 0.4 | < 0.4 | < 0.4 |
| Chromium | 5 | mg/kg | 30 | 38 | 15 | 14 |
| Copper | 5 | mg/kg | 27 | 22 | 20 | 17 |
| Lead | 5 | mg/kg | 12 | 18 | 95 | 56 |
| Mercury | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Nickel | 5 | mg/kg | 6.7 | 14 | 8.8 | 8.4 |
| Zinc | 5 | mg/kg | 20 | 21 | 280 | 200 |
| | | | | | | |
| % Moisture | 1 | % | 20 | 21 | 29 | 18 |
| **Acid Sulfate Soils Field pH Test** | | | | | | |
| pH-F (Field pH test)* | 0.1 | pH Units | 4.8 | 5.3 | - | 5.1 |
| pH-FOX (Field pH Peroxide test)* | 0.1 | pH Units | 3.5 | 4.0 | - | 3.9 |
| Reaction Ratings*[S05] | 0 | - | 1.0 | 1.0 | - | 2.0 |

| Client Sample ID | | | BH1015_0-0.1 | BH1015_0.5-0.6 | QA1 |
|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002978 | S22-Jn0002979 | S22-Jn0002980 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | |
| **Total Recoverable Hydrocarbons** | | | | | |
| TRH C6-C9 | 20 | mg/kg | < 20 | < 20 | < 20 |
| TRH C10-C14 | 20 | mg/kg | < 20 | < 20 | < 20 |
| TRH C15-C28 | 50 | mg/kg | 65 | < 50 | 72 |
| TRH C29-C36 | 50 | mg/kg | 62 | 92 | 83 |
| TRH C10-C36 (Total) | 50 | mg/kg | 127 | 92 | 155 |
| Naphthalene[N02] | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 |
| TRH C6-C10 | 20 | mg/kg | < 20 | < 20 | < 20 |
| TRH C6-C10 less BTEX (F1)[N04] | 20 | mg/kg | < 20 | < 20 | < 20 |
| TRH >C10-C16 | 50 | mg/kg | < 50 | < 50 | < 50 |
| TRH >C10-C16 less Naphthalene (F2)[N01] | 50 | mg/kg | < 50 | < 50 | < 50 |
| TRH >C16-C34 | 100 | mg/kg | 100 | 110 | 120 |
| TRH >C34-C40 | 100 | mg/kg | < 100 | < 100 | < 100 |
| TRH >C10-C40 (total)* | 100 | mg/kg | 100 | 110 | 120 |

| Client Sample ID | | | BH1015_0-0.1 | BH1015_0.5-0.6 | QA1 |
|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002978 | S22-Jn0002979 | S22-Jn0002980 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | |
| **BTEX** | | | | | |
| Benzene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Toluene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Ethylbenzene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| m&p-Xylenes | 0.2 | mg/kg | < 0.2 | < 0.2 | < 0.2 |
| o-Xylene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Xylenes - Total* | 0.3 | mg/kg | < 0.3 | < 0.3 | < 0.3 |
| 4-Bromofluorobenzene (surr.) | 1 | % | 104 | 82 | 98 |
| **Polycyclic Aromatic Hydrocarbons** | | | | | |
| Benzo(a)pyrene TEQ (lower bound) * | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 |
| Benzo(a)pyrene TEQ (medium bound) * | 0.5 | mg/kg | 0.6 | 0.6 | 0.6 |
| Benzo(a)pyrene TEQ (upper bound) * | 0.5 | mg/kg | 1.2 | 1.2 | 1.2 |
| Acenaphthene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 |
| Acenaphthylene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 |
| Anthracene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 |
| Benz(a)anthracene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 |
| Benzo(a)pyrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 |
| Benzo(b&j)fluoranthene[N07] | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 |
| Benzo(g.h.i)perylene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 |
| Benzo(k)fluoranthene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 |
| Chrysene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 |
| Dibenz(a.h)anthracene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 |
| Fluoranthene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 |
| Fluorene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 |
| Indeno(1.2.3-cd)pyrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 |
| Naphthalene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 |
| Phenanthrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 |
| Pyrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 |
| Total PAH* | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 |
| 2-Fluorobiphenyl (surr.) | 1 | % | 113 | 117 | 104 |
| p-Terphenyl-d14 (surr.) | 1 | % | 128 | 124 | 131 |
| **Organochlorine Pesticides** | | | | | |
| Chlordanes - Total | 0.1 | mg/kg | < 0.1 | - | < 0.1 |
| 4.4'-DDD | 0.05 | mg/kg | < 0.05 | - | < 0.05 |
| 4.4'-DDE | 0.05 | mg/kg | < 0.05 | - | < 0.05 |
| 4.4'-DDT | 0.05 | mg/kg | < 0.05 | - | < 0.05 |
| a-HCH | 0.05 | mg/kg | < 0.05 | - | < 0.05 |
| Aldrin | 0.05 | mg/kg | < 0.05 | - | < 0.05 |
| b-HCH | 0.05 | mg/kg | < 0.05 | - | < 0.05 |
| d-HCH | 0.05 | mg/kg | < 0.05 | - | < 0.05 |
| Dieldrin | 0.05 | mg/kg | < 0.05 | - | < 0.05 |
| Endosulfan I | 0.05 | mg/kg | < 0.05 | - | < 0.05 |
| Endosulfan II | 0.05 | mg/kg | < 0.05 | - | < 0.05 |
| Endosulfan sulphate | 0.05 | mg/kg | < 0.05 | - | < 0.05 |
| Endrin | 0.05 | mg/kg | < 0.05 | - | < 0.05 |
| Endrin aldehyde | 0.05 | mg/kg | < 0.05 | - | < 0.05 |
| Endrin ketone | 0.05 | mg/kg | < 0.05 | - | < 0.05 |
| g-HCH (Lindane) | 0.05 | mg/kg | < 0.05 | - | < 0.05 |
| Heptachlor | 0.05 | mg/kg | < 0.05 | - | < 0.05 |
| Heptachlor epoxide | 0.05 | mg/kg | < 0.05 | - | < 0.05 |

| Client Sample ID | | | BH1015_0-0.1 | BH1015_0.5-0.6 | QA1 |
|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0002978 | S22-Jn0002979 | S22-Jn0002980 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | |
| **Organochlorine Pesticides** | | | | | |
| Hexachlorobenzene | 0.05 | mg/kg | < 0.05 | - | < 0.05 |
| Methoxychlor | 0.05 | mg/kg | < 0.05 | - | < 0.05 |
| Toxaphene | 0.5 | mg/kg | < 0.5 | - | < 0.5 |
| Aldrin and Dieldrin (Total)* | 0.05 | mg/kg | - | - | < 0.05 |
| DDT + DDE + DDD (Total)* | 0.05 | mg/kg | - | - | < 0.05 |
| Vic EPA IWRG 621 OCP (Total)* | 0.1 | mg/kg | - | - | < 0.1 |
| Vic EPA IWRG 621 Other OCP (Total)* | 0.1 | mg/kg | - | - | < 0.1 |
| Dibutylchlorendate (surr.) | 1 | % | 129 | - | 120 |
| Tetrachloro-m-xylene (surr.) | 1 | % | 116 | - | 122 |
| **Organophosphorus Pesticides** | | | | | |
| Azinphos-methyl | 0.2 | mg/kg | 0.2 | - | < 0.2 |
| Bolstar | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Chlorfenvinphos | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Chlorpyrifos | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Chlorpyrifos-methyl | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Coumaphos | 2 | mg/kg | < 2 | - | < 2 |
| Demeton-S | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Demeton-O | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Diazinon | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Dichlorvos | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Dimethoate | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Disulfoton | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| EPN | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Ethion | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Ethoprop | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Ethyl parathion | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Fenitrothion | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Fensulfothion | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Fenthion | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Malathion | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Merphos | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Methyl parathion | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Mevinphos | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Monocrotophos | 2 | mg/kg | < 2 | - | < 2 |
| Naled | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Omethoate | 2 | mg/kg | < 2 | - | < 2 |
| Phorate | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Pirimiphos-methyl | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Pyrazophos | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Ronnel | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Terbufos | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Tetrachlorvinphos | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Tokuthion | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Trichloronate | 0.2 | mg/kg | < 0.2 | - | < 0.2 |
| Triphenylphosphate (surr.) | 1 | % | 127 | - | 126 |

| Client Sample ID | | | BH1015_0-0.1 | BH1015_0.5-0.6 | QA1 |
|---|---|---|---|---|---|
| **Sample Matrix** | | | **Soil** | **Soil** | **Soil** |
| **Eurofins Sample No.** | | | **S22-Jn0002978** | **S22-Jn0002979** | **S22-Jn0002980** |
| **Date Sampled** | | | **May 26, 2022** | **May 26, 2022** | **May 26, 2022** |
| Test/Reference | LOR | Unit | | | |
| **Polychlorinated Biphenyls** | | | | | |
| Aroclor-1016 | 0.1 | mg/kg | < 0.1 | - | < 0.1 |
| Aroclor-1221 | 0.1 | mg/kg | < 0.1 | - | < 0.1 |
| Aroclor-1232 | 0.1 | mg/kg | < 0.1 | - | < 0.1 |
| Aroclor-1242 | 0.1 | mg/kg | < 0.1 | - | < 0.1 |
| Aroclor-1248 | 0.1 | mg/kg | < 0.1 | - | < 0.1 |
| Aroclor-1254 | 0.1 | mg/kg | < 0.1 | - | < 0.1 |
| Aroclor-1260 | 0.1 | mg/kg | < 0.1 | - | < 0.1 |
| Total PCB* | 0.1 | mg/kg | < 0.1 | - | < 0.1 |
| Dibutylchlorendate (surr.) | 1 | % | 129 | - | 120 |
| Tetrachloro-m-xylene (surr.) | 1 | % | 116 | - | 122 |
| **Heavy Metals** | | | | | |
| Arsenic | 2 | mg/kg | 6.1 | 4.5 | 4.8 |
| Cadmium | 0.4 | mg/kg | < 0.4 | < 0.4 | < 0.4 |
| Chromium | 5 | mg/kg | 20 | 25 | 19 |
| Copper | 5 | mg/kg | 26 | 19 | 21 |
| Lead | 5 | mg/kg | 31 | 16 | 39 |
| Mercury | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 |
| Nickel | 5 | mg/kg | 28 | 33 | 16 |
| Zinc | 5 | mg/kg | 73 | 38 | 89 |
| | | | | | |
| % Moisture | 1 | % | 27 | 23 | 27 |
| **Acid Sulfate Soils Field pH Test** | | | | | |
| pH-F (Field pH test)* | 0.1 | pH Units | - | 5.2 | - |
| pH-FOX (Field pH Peroxide test)* | 0.1 | pH Units | - | 3.4 | - |
| Reaction Ratings*[S05] | 0 | - | - | 2.0 | - |

## Sample History

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

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

| Description | Testing Site | Extracted | Holding Time |
|---|---|---|---|
| Eurofins Suite B4 | | | |
| Total Recoverable Hydrocarbons - 1999 NEPM Fractions | Sydney | Jun 08, 2022 | 14 Days |
| - Method: LTM-ORG-2010 TRH C6-C40 | | | |
| Total Recoverable Hydrocarbons - 2013 NEPM Fractions | Sydney | Jun 08, 2022 | 14 Days |
| - Method: LTM-ORG-2010 TRH C6-C40 | | | |
| Total Recoverable Hydrocarbons - 2013 NEPM Fractions | Sydney | Jun 08, 2022 | 14 Days |
| - Method: LTM-ORG-2010 TRH C6-C40 | | | |
| BTEX | Sydney | Jun 08, 2022 | 14 Days |
| - Method: LTM-ORG-2010 BTEX and Volatile TRH | | | |
| Polycyclic Aromatic Hydrocarbons | Sydney | Jun 08, 2022 | 14 Days |
| - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water | | | |
| Eurofins Suite B15 | | | |
| Organochlorine Pesticides | Sydney | Jun 08, 2022 | 14 Days |
| - Method: LTM-ORG-2220 OCP & PCB in Soil and Water | | | |
| Organophosphorus Pesticides | Sydney | Jun 08, 2022 | 14 Days |
| - Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS | | | |
| Polychlorinated Biphenyls | Sydney | Jun 08, 2022 | 28 Days |
| - Method: LTM-ORG-2220 OCP & PCB in Soil and Water | | | |
| Metals M8 | Sydney | Jun 08, 2022 | 28 Days |
| - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS | | | |
| Acid Sulfate Soils Field pH Test | Sydney | Jun 08, 2022 | 7 Days |
| - Method: LTM-GEN-7060 Determination of field pH (pHF) and field pH peroxide (pHFOX) tests | | | |
| % Moisture | Sydney | Jun 02, 2022 | 14 Days |
| - Method: LTM-GEN-7080 Moisture | | | |

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NSW 2067

**Project Name:** DRAGONS
**Project ID:** SYDGE295047

**Order No.:**
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**Fax:** +61 2 9406 1004

**Received:** Jun 1, 2022 12:47 PM
**Due:** Jun 14, 2022
**Priority:** 1 Day
**Contact Name:** Matthew Locke

**Eurofins Analytical Services Manager : Asim Khan**

| Sample Detail | | | | | | CANCELLED | HOLD | Acid Sulfate Soils Field pH Test | Metals M8 | Eurofins Suite B15 | Moisture Set | Eurofins Suite B4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | X | X | X | X | X | X | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| **No** | **Sample ID** | **Sample Date** | **Sampling Time** | **Matrix** | **LAB ID** | | | | | | | |
| 1 | BH101_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002950 | | | | X | X | X | X |
| 2 | BH101_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0002951 | | | X | X | | X | X |
| 3 | BH101_2.4-2.6 | May 26, 2022 | | Soil | S22-Jn0002952 | | | X | X | | X | X |
| 4 | BH105_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002953 | | | | X | X | X | X |
| 5 | BH105_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0002954 | | | X | X | | X | X |
| 6 | BH105_2.0-2.2 | May 26, 2022 | | Soil | S22- | | | X | X | | X | X |

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**Eurofins Analytical Services Manager : Asim Khan**

| Sample Detail | | | | | | CANCELLED | HOLD | Acid Sulfate Soils Field pH Test | Metals M8 | Eurofins Suite B15 | Moisture Set | Eurofins Suite B4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | X | X | X | X | X | X | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| | | | | | Jn0002955 | | | | | | | |
| 7 | BH106_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002956 | | | | X | X | X | X |
| 8 | BH106_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0002957 | | | X | X | | X | X |
| 9 | BH106_2.8-3.0 | May 26, 2022 | | Soil | S22-Jn0002958 | | | X | X | | X | X |
| 10 | BH107_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002959 | | | | X | X | X | X |
| 11 | BH107_0.9-1.0 | May 26, 2022 | | Soil | S22-Jn0002960 | | | X | X | | X | X |
| 12 | BH107_2.8-3.0 | May 26, 2022 | | Soil | S22-Jn0002961 | | | X | X | | X | X |

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**Eurofins Analytical Services Manager : Asim Khan**

| Sample Detail | | | | | | CANCELLED | HOLD | Acid Sulfate Soils Field pH Test | Metals M8 | Eurofins Suite B15 | Moisture Set | Eurofins Suite B4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | X | X | X | X | X | X | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| 13 | BH108_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002962 | | | | X | X | X | X |
| 14 | BH108_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0002963 | | | X | X | | X | X |
| 15 | BH108_2.8-3.0 | May 26, 2022 | | Soil | S22-Jn0002964 | | | X | X | | X | X |
| 16 | BH109_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002965 | | | | X | X | X | X |
| 17 | BH109_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0002966 | | | X | X | | X | X |
| 18 | BH109_2.8-3.0 | May 26, 2022 | | Soil | S22-Jn0002967 | | | X | X | | X | X |
| 19 | BH1010_0-0.1 | May 26, 2022 | | Soil | S22- | | | | X | X | X | X |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | X | X | X | X | X | X | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| | | | | | Jn0002968 | | | | | | | |
| 20 | BH1010_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002969 | | | | X | | X | X |
| 21 | BH1011_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002970 | | | | X | X | X | X |
| 22 | BH1011_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0002971 | | | X | X | | X | X |
| 23 | BH1011_2.8-3.0 | May 26, 2022 | | Soil | S22-Jn0002972 | | | X | X | | X | X |
| 24 | BH1013_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002973 | | | | X | | X | X |
| 25 | BH1013_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0002974 | | | X | X | | X | X |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | X | X | X | X | X | X | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| 26 | BH1013_2.8-3.0 | May 26, 2022 | | Soil | S22-Jn0002975 | | | X | X | | X | X |
| 27 | BH1014_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002976 | | | | X | X | X | X |
| 28 | BH1014_0.8-0.9 | May 26, 2022 | | Soil | S22-Jn0002977 | | | X | X | | X | X |
| 29 | BH1015_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002978 | | | | X | X | X | X |
| 30 | BH1015_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002979 | | | X | X | | X | X |
| 31 | QA1 | May 26, 2022 | | Soil | S22-Jn0002980 | | | | X | X | X | X |
| 32 | QA1A | May 26, 2022 | | Soil | S22- | X | | | | | | |

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**Received:** Jun 1, 2022 12:47 PM
**Due:** Jun 14, 2022
**Priority:** 1 Day
**Contact Name:** Matthew Locke

**Eurofins Analytical Services Manager : Asim Khan**

| Sample Detail | | | | | | CANCELLED | HOLD | Acid Sulfate Soils Field pH Test | Metals M8 | Eurofins Suite B15 | Moisture Set | Eurofins Suite B4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | X | X | X | X | X | X | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| | | | | | Jn0002981 | | | | | | | |
| 33 | RB270522 | May 26, 2022 | | Water | S22-Jn0002982 | | | | X | X | | X |
| 34 | BH101_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002983 | | X | | | | | |
| 35 | BH101_2.0-2.2 | May 26, 2022 | | Soil | S22-Jn0002984 | | X | | | | | |
| 36 | BH105_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002985 | | X | | | | | |
| 37 | BH105_2.5-2.7 | May 26, 2022 | | Soil | S22-Jn0002986 | | X | | | | | |
| 38 | BH106_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002987 | | X | | | | | |

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**Company Name:** Coffey Environments Pty Ltd NSW
**Address:** Level 20, Tower B, Citadel Tower 799 Pacific Highway
Chatswood
NSW 2067

**Project Name:** DRAGONS
**Project ID:** SYDGE295047

**Order No.:**
**Report #:** 893864
**Phone:** +61 2 9406 1000
**Fax:** +61 2 9406 1004

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| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| 39 | BH106_2.0-2.2 | May 26, 2022 | | Soil | S22-Jn0002988 | | X | | | | | |
| 40 | BH107_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002989 | | X | | | | | |
| 41 | BH107_2.0-2.2 | May 26, 2022 | | Soil | S22-Jn0002990 | | X | | | | | |
| 42 | BH108_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002991 | | X | | | | | |
| 43 | BH108_2.0-2.2 | May 26, 2022 | | Soil | S22-Jn0002992 | | X | | | | | |
| 44 | BH109_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002993 | | X | | | | | |
| 45 | BH109_2.0-2.2 | May 26, 2022 | | Soil | S22- | | X | | | | | |

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| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | | | | | | |
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| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| | | | | | Jn0002994 | | | | | | | |
| 46 | BH1010_0.9-1.0 | May 26, 2022 | | Soil | S22-Jn0002995 | | X | | | | | |
| 47 | BH1011_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002996 | | X | | | | | |
| 48 | BH1011_2.0-2.2 | May 26, 2022 | | Soil | S22-Jn0002997 | | X | | | | | |
| 49 | BH1013_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002998 | | X | | | | | |
| 50 | BH1013_2.0-2.2 | May 26, 2022 | | Soil | S22-Jn0002999 | | X | | | | | |
| 51 | BH1014_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0003000 | | X | | | | | |

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| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | X | X | X | X | X | X | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| 52 | BH1015_1.0-1.1 | May 26, 2022 | | Soil | S22-Jn0003001 | | X | | | | | |
| 53 | QA2 | May 26, 2022 | | Soil | S22-Jn0003002 | | X | | | | | |
| 54 | QA2A | May 26, 2022 | | Soil | S22-Jn0003003 | | X | | | | | |
| 55 | RB260522 | May 26, 2022 | | Water | S22-Jn0003004 | | X | | | | | |
| **Test Counts** | | | | | | 1 | 22 | 18 | 32 | 12 | 31 | 32 |

## Internal Quality Control Review and Glossary

### General

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

### Holding Times

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

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

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

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

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

### Units

**mg/kg:** milligrams per kilogram
**mg/L:** milligrams per litre
**µg/L:** micrograms per litre
**ppm:** parts per million
**ppb:** parts per billion
**%:** Percentage
**org/100 mL:** Organisms per 100 millilitres
**NTU:** Nephelometric Turbidity Units
**MPN/100 mL:** Most Probable Number of organisms per 100 millilitres

### Terms

| | |
|---|---|
| **APHA** | American Public Health Association |
| **COC** | Chain of Custody |
| **CP** | Client Parent - QC was performed on samples pertaining to this report |
| **CRM** | Certified Reference Material (ISO17034) - reported as percent recovery. |
| **Dry** | Where a moisture has been determined on a solid sample the result is expressed on a dry basis. |
| **Duplicate** | A second piece of analysis from the same sample and reported in the same units as the result to show comparison. |
| **LOR** | Limit of Reporting. |
| **LCS** | Laboratory Control Sample - reported as percent recovery. |
| **Method Blank** | In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water. |
| **NCP** | Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within. |
| **RPD** | Relative Percent Difference between two Duplicate pieces of analysis. |
| **SPIKE** | Addition of the analyte to the sample and reported as percentage recovery. |
| **SRA** | Sample Receipt Advice |
| **Surr - Surrogate** | The addition of a like compound to the analyte target and reported as percentage recovery. |
| **TBTO** | Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits. |
| **TCLP** | Toxicity Characteristic Leaching Procedure |
| **TEQ** | Toxic Equivalency Quotient or Total Equivalence |
| **QSM** | US Department of Defense Quality Systems Manual Version 5.4 |
| **US EPA** | United States Environmental Protection Agency |
| **WA DWER** | Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA |

### QC - Acceptance Criteria

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

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

Results <10 times the LOR: No Limit

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

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

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

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

.

### QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

**Quality Control Results**

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

| Test | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|
| Endrin | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Endrin aldehyde | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Endrin ketone | mg/kg | < 0.05 | | | 0.05 | Pass | |
| g-HCH (Lindane) | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Heptachlor | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Heptachlor epoxide | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Hexachlorobenzene | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Methoxychlor | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Toxaphene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| **Method Blank** | | | | | | | |
| **Organophosphorus Pesticides** | | | | | | | |
| Azinphos-methyl | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Bolstar | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Chlorfenvinphos | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Chlorpyrifos | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Chlorpyrifos-methyl | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Coumaphos | mg/kg | < 2 | | | 2 | Pass | |
| Demeton-S | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Demeton-O | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Diazinon | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Dichlorvos | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Dimethoate | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Disulfoton | mg/kg | < 0.2 | | | 0.2 | Pass | |
| EPN | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Ethion | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Ethoprop | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Ethyl parathion | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Fenitrothion | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Fensulfothion | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Fenthion | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Malathion | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Merphos | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Methyl parathion | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Mevinphos | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Monocrotophos | mg/kg | < 2 | | | 2 | Pass | |
| Naled | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Omethoate | mg/kg | < 2 | | | 2 | Pass | |
| Phorate | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Pirimiphos-methyl | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Pyrazophos | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Ronnel | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Terbufos | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Tetrachlorvinphos | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Tokuthion | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Trichloronate | mg/kg | < 0.2 | | | 0.2 | Pass | |
| **Method Blank** | | | | | | | |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor-1016 | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Aroclor-1221 | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Aroclor-1232 | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Aroclor-1242 | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Aroclor-1248 | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Aroclor-1254 | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Aroclor-1260 | mg/kg | < 0.1 | | | 0.1 | Pass | |

| Test | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|
| Total PCB* | mg/kg | < 0.1 | | | 0.1 | Pass | |
| **Method Blank** | | | | | | | |
| **Heavy Metals** | | | | | | | |
| Arsenic | mg/kg | < 2 | | | 2 | Pass | |
| Cadmium | mg/kg | < 0.4 | | | 0.4 | Pass | |
| Chromium | mg/kg | < 5 | | | 5 | Pass | |
| Copper | mg/kg | < 5 | | | 5 | Pass | |
| Lead | mg/kg | < 5 | | | 5 | Pass | |
| Mercury | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Nickel | mg/kg | < 5 | | | 5 | Pass | |
| Zinc | mg/kg | < 5 | | | 5 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Total Recoverable Hydrocarbons** | | | | | | | |
| TRH C6-C9 | % | 120 | | | 70-130 | Pass | |
| TRH C10-C14 | % | 85 | | | 70-130 | Pass | |
| Naphthalene | % | 96 | | | 70-130 | Pass | |
| TRH C6-C10 | % | 120 | | | 70-130 | Pass | |
| TRH >C10-C16 | % | 81 | | | 70-130 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **BTEX** | | | | | | | |
| Benzene | % | 119 | | | 70-130 | Pass | |
| Toluene | % | 115 | | | 70-130 | Pass | |
| Ethylbenzene | % | 113 | | | 70-130 | Pass | |
| m&p-Xylenes | % | 111 | | | 70-130 | Pass | |
| o-Xylene | % | 114 | | | 70-130 | Pass | |
| Xylenes - Total* | % | 112 | | | 70-130 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | | |
| Acenaphthene | % | 100 | | | 70-130 | Pass | |
| Acenaphthylene | % | 107 | | | 70-130 | Pass | |
| Anthracene | % | 103 | | | 70-130 | Pass | |
| Benz(a)anthracene | % | 96 | | | 70-130 | Pass | |
| Benzo(a)pyrene | % | 94 | | | 70-130 | Pass | |
| Benzo(b&j)fluoranthene | % | 86 | | | 70-130 | Pass | |
| Benzo(g.h.i)perylene | % | 128 | | | 70-130 | Pass | |
| Benzo(k)fluoranthene | % | 86 | | | 70-130 | Pass | |
| Chrysene | % | 94 | | | 70-130 | Pass | |
| Dibenz(a.h)anthracene | % | 97 | | | 70-130 | Pass | |
| Fluoranthene | % | 104 | | | 70-130 | Pass | |
| Fluorene | % | 98 | | | 70-130 | Pass | |
| Indeno(1.2.3-cd)pyrene | % | 95 | | | 70-130 | Pass | |
| Naphthalene | % | 97 | | | 70-130 | Pass | |
| Phenanthrene | % | 94 | | | 70-130 | Pass | |
| Pyrene | % | 105 | | | 70-130 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Organochlorine Pesticides** | | | | | | | |
| Chlordanes - Total | % | 129 | | | 70-130 | Pass | |
| 4.4'-DDD | % | 85 | | | 70-130 | Pass | |
| 4.4'-DDE | % | 126 | | | 70-130 | Pass | |
| 4.4'-DDT | % | 119 | | | 70-130 | Pass | |
| a-HCH | % | 81 | | | 70-130 | Pass | |
| Aldrin | % | 76 | | | 70-130 | Pass | |
| b-HCH | % | 92 | | | 70-130 | Pass | |
| d-HCH | % | 80 | | | 70-130 | Pass | |

| Test | | | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|---|---|
| Dieldrin | | | % | 107 | | | 70-130 | Pass | |
| Endosulfan I | | | % | 96 | | | 70-130 | Pass | |
| Endosulfan II | | | % | 90 | | | 70-130 | Pass | |
| Endosulfan sulphate | | | % | 111 | | | 70-130 | Pass | |
| Endrin | | | % | 127 | | | 70-130 | Pass | |
| Endrin aldehyde | | | % | 115 | | | 70-130 | Pass | |
| Endrin ketone | | | % | 113 | | | 70-130 | Pass | |
| g-HCH (Lindane) | | | % | 88 | | | 70-130 | Pass | |
| Heptachlor | | | % | 79 | | | 70-130 | Pass | |
| Heptachlor epoxide | | | % | 96 | | | 70-130 | Pass | |
| Hexachlorobenzene | | | % | 129 | | | 70-130 | Pass | |
| Methoxychlor | | | % | 130 | | | 70-130 | Pass | |
| **LCS - % Recovery** | | | | | | | | | |
| **Organophosphorus Pesticides** | | | | | | | | | |
| Diazinon | | | % | 127 | | | 70-130 | Pass | |
| Dimethoate | | | % | 120 | | | 70-130 | Pass | |
| Ethion | | | % | 98 | | | 70-130 | Pass | |
| Fenitrothion | | | % | 121 | | | 70-130 | Pass | |
| Methyl parathion | | | % | 81 | | | 70-130 | Pass | |
| Mevinphos | | | % | 124 | | | 70-130 | Pass | |
| **LCS - % Recovery** | | | | | | | | | |
| **Polychlorinated Biphenyls** | | | | | | | | | |
| Aroclor-1016 | | | % | 102 | | | 70-130 | Pass | |
| Aroclor-1260 | | | % | 93 | | | 70-130 | Pass | |
| **LCS - % Recovery** | | | | | | | | | |
| **Heavy Metals** | | | | | | | | | |
| Arsenic | | | % | 102 | | | 80-120 | Pass | |
| Cadmium | | | % | 103 | | | 80-120 | Pass | |
| Chromium | | | % | 107 | | | 80-120 | Pass | |
| Copper | | | % | 108 | | | 80-120 | Pass | |
| Lead | | | % | 105 | | | 80-120 | Pass | |
| Mercury | | | % | 98 | | | 80-120 | Pass | |
| Nickel | | | % | 97 | | | 80-120 | Pass | |
| Zinc | | | % | 100 | | | 80-120 | Pass | |
| **Test** | **Lab Sample ID** | **QA Source** | **Units** | **Result 1** | | | **Acceptance Limits** | **Pass Limits** | **Qualifying Code** |
| **Spike - % Recovery** | | | | | | | | | |
| **Polycyclic Aromatic Hydrocarbons** | | | | Result 1 | | | | | |
| Acenaphthene | S22-Jn0009931 | NCP | % | 98 | | | 70-130 | Pass | |
| Acenaphthylene | S22-Jn0009931 | NCP | % | 82 | | | 70-130 | Pass | |
| Anthracene | S22-Jn0009931 | NCP | % | 96 | | | 70-130 | Pass | |
| Benz(a)anthracene | S22-Jn0009931 | NCP | % | 88 | | | 70-130 | Pass | |
| Benzo(a)pyrene | S22-Jn0009931 | NCP | % | 107 | | | 70-130 | Pass | |
| Benzo(b&j)fluoranthene | S22-Jn0009931 | NCP | % | 97 | | | 70-130 | Pass | |
| Benzo(g.h.i)perylene | S22-Jn0009931 | NCP | % | 91 | | | 70-130 | Pass | |
| Benzo(k)fluoranthene | S22-Jn0009931 | NCP | % | 92 | | | 70-130 | Pass | |
| Chrysene | S22-Jn0009931 | NCP | % | 85 | | | 70-130 | Pass | |
| Dibenz(a.h)anthracene | S22-Jn0009931 | NCP | % | 95 | | | 70-130 | Pass | |
| Fluoranthene | S22-Jn0009931 | NCP | % | 95 | | | 70-130 | Pass | |
| Fluorene | S22-Jn0009931 | NCP | % | 94 | | | 70-130 | Pass | |
| Indeno(1.2.3-cd)pyrene | S22-Jn0009931 | NCP | % | 87 | | | 70-130 | Pass | |
| Naphthalene | S22-Jn0009931 | NCP | % | 97 | | | 70-130 | Pass | |
| Phenanthrene | S22-Jn0009931 | NCP | % | 100 | | | 70-130 | Pass | |
| Pyrene | S22-Jn0009931 | NCP | % | 88 | | | 70-130 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |

| Test | Lab Sample ID | QA Source | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|---|---|
| **Total Recoverable Hydrocarbons** | | | | Result 1 | | | | | |
| TRH C6-C9 | S22-Jn0002957 | CP | % | 105 | | | 70-130 | Pass | |
| Naphthalene | S22-Jn0002957 | CP | % | 78 | | | 70-130 | Pass | |
| TRH C6-C10 | S22-Jn0002957 | CP | % | 104 | | | 70-130 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **BTEX** | | | | Result 1 | | | | | |
| Benzene | S22-Jn0002957 | CP | % | 108 | | | 70-130 | Pass | |
| Toluene | S22-Jn0002957 | CP | % | 106 | | | 70-130 | Pass | |
| Ethylbenzene | S22-Jn0002957 | CP | % | 105 | | | 70-130 | Pass | |
| m&p-Xylenes | S22-Jn0002957 | CP | % | 104 | | | 70-130 | Pass | |
| o-Xylene | S22-Jn0002957 | CP | % | 105 | | | 70-130 | Pass | |
| Xylenes - Total* | S22-Jn0002957 | CP | % | 104 | | | 70-130 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Heavy Metals** | | | | Result 1 | | | | | |
| Arsenic | S22-Jn0002957 | CP | % | 88 | | | 75-125 | Pass | |
| Cadmium | S22-Jn0002957 | CP | % | 97 | | | 75-125 | Pass | |
| Chromium | S22-Jn0002957 | CP | % | 81 | | | 75-125 | Pass | |
| Copper | S22-Jn0002957 | CP | % | 79 | | | 75-125 | Pass | |
| Lead | S22-Jn0002957 | CP | % | 91 | | | 75-125 | Pass | |
| Mercury | S22-Jn0002957 | CP | % | 99 | | | 75-125 | Pass | |
| Nickel | S22-Jn0002957 | CP | % | 80 | | | 75-125 | Pass | |
| Zinc | S22-Jn0002957 | CP | % | 80 | | | 75-125 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Total Recoverable Hydrocarbons** | | | | Result 1 | | | | | |
| TRH C10-C14 | S22-Jn0002963 | CP | % | 83 | | | 70-130 | Pass | |
| TRH >C10-C16 | S22-Jn0002963 | CP | % | 80 | | | 70-130 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Total Recoverable Hydrocarbons** | | | | Result 1 | | | | | |
| TRH C6-C9 | S22-Jn0002977 | CP | % | 96 | | | 70-130 | Pass | |
| TRH C10-C14 | S22-Jn0002977 | CP | % | 82 | | | 70-130 | Pass | |
| Naphthalene | S22-Jn0002977 | CP | % | 79 | | | 70-130 | Pass | |
| TRH C6-C10 | S22-Jn0002977 | CP | % | 96 | | | 70-130 | Pass | |
| TRH >C10-C16 | S22-Jn0002977 | CP | % | 78 | | | 70-130 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **BTEX** | | | | Result 1 | | | | | |
| Benzene | S22-Jn0002977 | CP | % | 99 | | | 70-130 | Pass | |
| Toluene | S22-Jn0002977 | CP | % | 97 | | | 70-130 | Pass | |
| Ethylbenzene | S22-Jn0002977 | CP | % | 95 | | | 70-130 | Pass | |
| m&p-Xylenes | S22-Jn0002977 | CP | % | 94 | | | 70-130 | Pass | |
| o-Xylene | S22-Jn0002977 | CP | % | 93 | | | 70-130 | Pass | |
| Xylenes - Total* | S22-Jn0002977 | CP | % | 93 | | | 70-130 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Heavy Metals** | | | | Result 1 | | | | | |
| Arsenic | S22-Jn0002977 | CP | % | 98 | | | 75-125 | Pass | |
| Cadmium | S22-Jn0002977 | CP | % | 97 | | | 75-125 | Pass | |
| Chromium | S22-Jn0002977 | CP | % | 103 | | | 75-125 | Pass | |
| Copper | S22-Jn0002977 | CP | % | 86 | | | 75-125 | Pass | |
| Mercury | S22-Jn0002977 | CP | % | 96 | | | 75-125 | Pass | |
| Nickel | S22-Jn0002977 | CP | % | 83 | | | 75-125 | Pass | |

| Test | Lab Sample ID | QA Source | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|---|---|
| **Duplicate** | | | | | | | | | |
| **Total Recoverable Hydrocarbons** | | | | Result 1 | Result 2 | RPD | | | |
| TRH C6-C9 | S22-Jn0002956 | CP | mg/kg | < 20 | < 20 | <1 | 30% | Pass | |
| TRH C10-C14 | S22-Jn0002956 | CP | mg/kg | < 20 | < 20 | <1 | 30% | Pass | |
| TRH C15-C28 | S22-Jn0002956 | CP | mg/kg | 60 | 72 | 17 | 30% | Pass | |
| TRH C29-C36 | S22-Jn0002956 | CP | mg/kg | < 50 | 59 | 30 | 30% | Pass | |
| Naphthalene | S22-Jn0002956 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| TRH C6-C10 | S22-Jn0002956 | CP | mg/kg | < 20 | < 20 | <1 | 30% | Pass | |
| TRH >C10-C16 | S22-Jn0002956 | CP | mg/kg | < 50 | < 50 | <1 | 30% | Pass | |
| TRH >C16-C34 | S22-Jn0002956 | CP | mg/kg | < 100 | 110 | 23 | 30% | Pass | |
| TRH >C34-C40 | S22-Jn0002956 | CP | mg/kg | < 100 | < 100 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **BTEX** | | | | Result 1 | Result 2 | RPD | | | |
| Benzene | S22-Jn0002956 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Toluene | S22-Jn0002956 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Ethylbenzene | S22-Jn0002956 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| m&p-Xylenes | S22-Jn0002956 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| o-Xylene | S22-Jn0002956 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Xylenes - Total* | S22-Jn0002956 | CP | mg/kg | < 0.3 | < 0.3 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Heavy Metals** | | | | Result 1 | Result 2 | RPD | | | |
| Arsenic | S22-Jn0002956 | CP | mg/kg | 4.3 | 4.1 | 5.0 | 30% | Pass | |
| Cadmium | S22-Jn0002956 | CP | mg/kg | 0.5 | 0.5 | 2.0 | 30% | Pass | |
| Chromium | S22-Jn0002956 | CP | mg/kg | 18 | 17 | 2.0 | 30% | Pass | |
| Copper | S22-Jn0002956 | CP | mg/kg | 24 | 25 | 5.0 | 30% | Pass | |
| Lead | S22-Jn0002956 | CP | mg/kg | 35 | 32 | 10 | 30% | Pass | |
| Mercury | S22-Jn0002956 | CP | mg/kg | 0.1 | 0.1 | 6.0 | 30% | Pass | |
| Nickel | S22-Jn0002956 | CP | mg/kg | 17 | 17 | <1 | 30% | Pass | |
| Zinc | S22-Jn0002956 | CP | mg/kg | 63 | 63 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| | | | | Result 1 | Result 2 | RPD | | | |
| % Moisture | S22-Jn0002956 | CP | % | 30 | 33 | 7.0 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Acid Sulfate Soils Field pH Test** | | | | Result 1 | Result 2 | RPD | | | |
| pH-F (Field pH test)* | S22-Jn0002957 | CP | pH Units | 4.9 | 4.9 | pass | 20% | Pass | |
| pH-FOX (Field pH Peroxide test)* | S22-Jn0002957 | CP | pH Units | 3.9 | 3.9 | pass | 0% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Polycyclic Aromatic Hydrocarbons** | | | | Result 1 | Result 2 | RPD | | | |
| Acenaphthene | S22-Jn0002962 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Acenaphthylene | S22-Jn0002962 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Anthracene | S22-Jn0002962 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Benz(a)anthracene | S22-Jn0002962 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Benzo(a)pyrene | S22-Jn0002962 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Benzo(b&j)fluoranthene | S22-Jn0002962 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Benzo(g.h.i)perylene | S22-Jn0002962 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Benzo(k)fluoranthene | S22-Jn0002962 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Chrysene | S22-Jn0002962 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Dibenz(a.h)anthracene | S22-Jn0002962 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Fluoranthene | S22-Jn0002962 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Fluorene | S22-Jn0002962 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Indeno(1.2.3-cd)pyrene | S22-Jn0002962 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Naphthalene | S22-Jn0002962 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Phenanthrene | S22-Jn0002962 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Pyrene | S22-Jn0002962 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |

| Duplicate | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Organochlorine Pesticides** | | | | Result 1 | Result 2 | RPD | | | |
| Chlordanes - Total | S22-Jn0002962 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| 4.4'-DDD | S22-Jn0002962 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| 4.4'-DDE | S22-Jn0002962 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| 4.4'-DDT | S22-Jn0002962 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| a-HCH | S22-Jn0002962 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Aldrin | S22-Jn0002962 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| b-HCH | S22-Jn0002962 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| d-HCH | S22-Jn0002962 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Dieldrin | S22-Jn0002962 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Endosulfan I | S22-Jn0002962 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Endosulfan II | S22-Jn0002962 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Endosulfan sulphate | S22-Jn0002962 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Endrin | S22-Jn0002962 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Endrin aldehyde | S22-Jn0002962 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Endrin ketone | S22-Jn0002962 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| g-HCH (Lindane) | S22-Jn0002962 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Heptachlor | S22-Jn0002962 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Heptachlor epoxide | S22-Jn0002962 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Hexachlorobenzene | S22-Jn0002962 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Methoxychlor | S22-Jn0002962 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Toxaphene | S22-Jn0002962 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Organophosphorus Pesticides** | | | | Result 1 | Result 2 | RPD | | | |
| Azinphos-methyl | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Bolstar | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Chlorfenvinphos | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Chlorpyrifos | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Chlorpyrifos-methyl | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Coumaphos | S22-Jn0002962 | CP | mg/kg | < 2 | < 2 | <1 | 30% | Pass | |
| Demeton-S | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Demeton-O | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Diazinon | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Dichlorvos | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Dimethoate | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Disulfoton | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| EPN | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Ethion | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Ethoprop | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Ethyl parathion | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Fenitrothion | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Fensulfothion | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Fenthion | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Malathion | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Merphos | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Methyl parathion | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Mevinphos | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Monocrotophos | S22-Jn0002962 | CP | mg/kg | < 2 | < 2 | <1 | 30% | Pass | |
| Naled | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Omethoate | S22-Jn0002962 | CP | mg/kg | < 2 | < 2 | <1 | 30% | Pass | |
| Phorate | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Pirimiphos-methyl | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Pyrazophos | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Ronnel | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Terbufos | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Duplicate** | | | | | | | | | |
| **Organophosphorus Pesticides** | | | | Result 1 | Result 2 | RPD | | | |
| Tetrachlorvinphos | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Tokuthion | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Trichloronate | S22-Jn0002962 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Polychlorinated Biphenyls** | | | | Result 1 | Result 2 | RPD | | | |
| Aroclor-1016 | S22-Jn0002962 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Aroclor-1221 | S22-Jn0002962 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Aroclor-1232 | S22-Jn0002962 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Aroclor-1242 | S22-Jn0002962 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Aroclor-1248 | S22-Jn0002962 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Aroclor-1254 | S22-Jn0002962 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Aroclor-1260 | S22-Jn0002962 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Total PCB* | S22-Jn0002962 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Heavy Metals** | | | | Result 1 | Result 2 | RPD | | | |
| Arsenic | S22-Jn0002965 | CP | mg/kg | 3.8 | 2.6 | 40 | 30% | Fail | Q15 |
| Cadmium | S22-Jn0002965 | CP | mg/kg | < 0.4 | < 0.4 | <1 | 30% | Pass | |
| Chromium | S22-Jn0002965 | CP | mg/kg | 15 | 9.7 | 42 | 30% | Fail | Q15 |
| Copper | S22-Jn0002965 | CP | mg/kg | 15 | 10.0 | 39 | 30% | Fail | Q15 |
| Lead | S22-Jn0002965 | CP | mg/kg | 17 | 12 | 38 | 30% | Fail | Q15 |
| Mercury | S22-Jn0002965 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Nickel | S22-Jn0002965 | CP | mg/kg | 11 | 8.0 | 33 | 30% | Fail | Q15 |
| Zinc | S22-Jn0002965 | CP | mg/kg | 45 | 38 | 16 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| | | | | Result 1 | Result 2 | RPD | | | |
| % Moisture | S22-Jn0002966 | CP | % | 22 | 23 | 4.0 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Polycyclic Aromatic Hydrocarbons** | | | | Result 1 | Result 2 | RPD | | | |
| Acenaphthene | S22-Jn0002970 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Acenaphthylene | S22-Jn0002970 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Anthracene | S22-Jn0002970 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Benz(a)anthracene | S22-Jn0002970 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Benzo(a)pyrene | S22-Jn0002970 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Benzo(b&j)fluoranthene | S22-Jn0002970 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Benzo(g.h.i)perylene | S22-Jn0002970 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Benzo(k)fluoranthene | S22-Jn0002970 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Chrysene | S22-Jn0002970 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Dibenz(a.h)anthracene | S22-Jn0002970 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Fluoranthene | S22-Jn0002970 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Fluorene | S22-Jn0002970 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Indeno(1.2.3-cd)pyrene | S22-Jn0002970 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Naphthalene | S22-Jn0002970 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Phenanthrene | S22-Jn0002970 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Pyrene | S22-Jn0002970 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Organochlorine Pesticides** | | | | Result 1 | Result 2 | RPD | | | |
| Chlordanes - Total | S22-Jn0002970 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| 4.4'-DDD | S22-Jn0002970 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| 4.4'-DDE | S22-Jn0002970 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| 4.4'-DDT | S22-Jn0002970 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| a-HCH | S22-Jn0002970 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Aldrin | S22-Jn0002970 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| b-HCH | S22-Jn0002970 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| d-HCH | S22-Jn0002970 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Duplicate** | | | | | | | | | |
| **Organochlorine Pesticides** | | | | Result 1 | Result 2 | RPD | | | |
| Dieldrin | S22-Jn0002970 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Endosulfan I | S22-Jn0002970 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Endosulfan II | S22-Jn0002970 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Endosulfan sulphate | S22-Jn0002970 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Endrin | S22-Jn0002970 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Endrin aldehyde | S22-Jn0002970 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Endrin ketone | S22-Jn0002970 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| g-HCH (Lindane) | S22-Jn0002970 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Heptachlor | S22-Jn0002970 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Heptachlor epoxide | S22-Jn0002970 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Hexachlorobenzene | S22-Jn0002970 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Methoxychlor | S22-Jn0002970 | CP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Organophosphorus Pesticides** | | | | Result 1 | Result 2 | RPD | | | |
| Azinphos-methyl | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Bolstar | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Chlorfenvinphos | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Chlorpyrifos | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Chlorpyrifos-methyl | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Coumaphos | S22-Jn0002970 | CP | mg/kg | < 2 | < 2 | <1 | 30% | Pass | |
| Demeton-S | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Demeton-O | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Diazinon | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Dichlorvos | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Dimethoate | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Disulfoton | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| EPN | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Ethion | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Ethoprop | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Ethyl parathion | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Fenitrothion | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Fensulfothion | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Fenthion | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Malathion | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Merphos | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Methyl parathion | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Mevinphos | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Monocrotophos | S22-Jn0002970 | CP | mg/kg | < 2 | < 2 | <1 | 30% | Pass | |
| Naled | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Omethoate | S22-Jn0002970 | CP | mg/kg | < 2 | < 2 | <1 | 30% | Pass | |
| Phorate | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Pirimiphos-methyl | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Pyrazophos | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Ronnel | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Terbufos | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Tetrachlorvinphos | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Tokuthion | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Trichloronate | S22-Jn0002970 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Polychlorinated Biphenyls** | | | | Result 1 | Result 2 | RPD | | | |
| Aroclor-1016 | S22-Jn0002970 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Aroclor-1221 | S22-Jn0002970 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Aroclor-1232 | S22-Jn0002970 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Aroclor-1242 | S22-Jn0002970 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Duplicate** | | | | | | | | | |
| **Polychlorinated Biphenyls** | | | | Result 1 | Result 2 | RPD | | | |
| Aroclor-1248 | S22-Jn0002970 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Aroclor-1254 | S22-Jn0002970 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Aroclor-1260 | S22-Jn0002970 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Total PCB* | S22-Jn0002970 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Acid Sulfate Soils Field pH Test** | | | | Result 1 | Result 2 | RPD | | | |
| pH-F (Field pH test)* | S22-Jn0002974 | CP | pH Units | 4.8 | 4.9 | pass | 20% | Pass | |
| pH-FOX (Field pH Peroxide test)* | S22-Jn0002974 | CP | pH Units | 3.5 | 3.5 | pass | 0% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Total Recoverable Hydrocarbons** | | | | Result 1 | Result 2 | RPD | | | |
| TRH C6-C9 | S22-Jn0002975 | CP | mg/kg | < 20 | < 20 | <1 | 30% | Pass | |
| Naphthalene | S22-Jn0002975 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| TRH C6-C10 | S22-Jn0002975 | CP | mg/kg | < 20 | < 20 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **BTEX** | | | | Result 1 | Result 2 | RPD | | | |
| Benzene | S22-Jn0002975 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Toluene | S22-Jn0002975 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Ethylbenzene | S22-Jn0002975 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| m&p-Xylenes | S22-Jn0002975 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| o-Xylene | S22-Jn0002975 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Xylenes - Total* | S22-Jn0002975 | CP | mg/kg | < 0.3 | < 0.3 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Total Recoverable Hydrocarbons** | | | | Result 1 | Result 2 | RPD | | | |
| TRH C10-C14 | S22-Jn0002976 | CP | mg/kg | < 20 | < 20 | <1 | 30% | Pass | |
| TRH C15-C28 | S22-Jn0002976 | CP | mg/kg | 75 | 89 | 18 | 30% | Pass | |
| TRH C29-C36 | S22-Jn0002976 | CP | mg/kg | 75 | 90 | 18 | 30% | Pass | |
| TRH >C10-C16 | S22-Jn0002976 | CP | mg/kg | < 50 | < 50 | <1 | 30% | Pass | |
| TRH >C16-C34 | S22-Jn0002976 | CP | mg/kg | 120 | 140 | 19 | 30% | Pass | |
| TRH >C34-C40 | S22-Jn0002976 | CP | mg/kg | < 100 | < 100 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| | | | | Result 1 | Result 2 | RPD | | | |
| % Moisture | S22-Jn0002976 | CP | % | 29 | 33 | 12 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Heavy Metals** | | | | Result 1 | Result 2 | RPD | | | |
| Arsenic | S22-Jn0002980 | CP | mg/kg | 4.8 | 4.9 | <1 | 30% | Pass | |
| Cadmium | S22-Jn0002980 | CP | mg/kg | < 0.4 | < 0.4 | <1 | 30% | Pass | |
| Chromium | S22-Jn0002980 | CP | mg/kg | 19 | 19 | 1.0 | 30% | Pass | |
| Copper | S22-Jn0002980 | CP | mg/kg | 21 | 21 | 2.0 | 30% | Pass | |
| Lead | S22-Jn0002980 | CP | mg/kg | 39 | 38 | 1.0 | 30% | Pass | |
| Mercury | S22-Jn0002980 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Nickel | S22-Jn0002980 | CP | mg/kg | 16 | 15 | 2.0 | 30% | Pass | |
| Zinc | S22-Jn0002980 | CP | mg/kg | 89 | 87 | 2.0 | 30% | Pass | |

## Comments

### Sample Integrity

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

### Qualifier Codes/Comments

| Code | Description |
|---|---|
| N01 | F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis). |
| N02 | Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid. |
| N04 | F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes. |
| N07 | Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs |
| Q15 | The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report. |
| S05 | Field Screen uses the following fizz rating to classify the rate the samples reacted to the peroxide: 1.0; No reaction to slight. 2.0; Moderate reaction. 3.0; Strong reaction with persistent froth. 4.0; Extreme reaction. |

### Authorised by:

| | |
|---|---|
| Asim Khan | Analytical Services Manager |
| Roopesh Rangarajan | Senior Analyst-Organic |
| Gabriele Cordero | Senior Analyst-Metal |

**Glenn Jackson**
**General Manager**

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please click here.

**Coffey Environments Pty Ltd NSW**
**Level 20, Tower B, Citadel Tower 799 Pacific Highway**
**Chatswood**
**NSW 2067**



**Attention:** **Matthew Locke**

**Report** **893864-W**
Project name DRAGONS
Project ID SYDGE295047
Received Date Jun 01, 2022

| **Client Sample ID** | | | **RB270522** |
|---|---|---|---|
| **Sample Matrix** | | | **Water** |
| **Eurofins Sample No.** | | | **S22-Jn0002982** |
| **Date Sampled** | | | **May 26, 2022** |
| Test/Reference | LOR | Unit | |
| **Total Recoverable Hydrocarbons** | | | |
| TRH C6-C9 | 0.02 | mg/L | < 0.02 |
| TRH C10-C14 | 0.05 | mg/L | < 0.05 |
| TRH C15-C28 | 0.1 | mg/L | < 0.1 |
| TRH C29-C36 | 0.1 | mg/L | < 0.1 |
| TRH C10-C36 (Total) | 0.1 | mg/L | < 0.1 |
| Naphthalene[N02] | 0.01 | mg/L | < 0.01 |
| TRH C6-C10 | 0.02 | mg/L | < 0.02 |
| TRH C6-C10 less BTEX (F1)[N04] | 0.02 | mg/L | < 0.02 |
| TRH >C10-C16 | 0.05 | mg/L | < 0.05 |
| TRH >C10-C16 less Naphthalene (F2)[N01] | 0.05 | mg/L | < 0.05 |
| TRH >C16-C34 | 0.1 | mg/L | < 0.1 |
| TRH >C34-C40 | 0.1 | mg/L | < 0.1 |
| TRH >C10-C40 (total)* | 0.1 | mg/L | < 0.1 |
| **BTEX** | | | |
| Benzene | 0.001 | mg/L | < 0.001 |
| Toluene | 0.001 | mg/L | < 0.001 |
| Ethylbenzene | 0.001 | mg/L | < 0.001 |
| m&p-Xylenes | 0.002 | mg/L | < 0.002 |
| o-Xylene | 0.001 | mg/L | < 0.001 |
| Xylenes - Total* | 0.003 | mg/L | < 0.003 |
| 4-Bromofluorobenzene (surr.) | 1 | % | 88 |
| **Polycyclic Aromatic Hydrocarbons** | | | |
| Acenaphthene | 0.001 | mg/L | < 0.001 |
| Acenaphthylene | 0.001 | mg/L | < 0.001 |
| Anthracene | 0.001 | mg/L | < 0.001 |
| Benz(a)anthracene | 0.001 | mg/L | < 0.001 |
| Benzo(a)pyrene | 0.001 | mg/L | < 0.001 |
| Benzo(b&j)fluoranthene[N07] | 0.001 | mg/L | < 0.001 |
| Benzo(g.h.i)perylene | 0.001 | mg/L | < 0.001 |
| Benzo(k)fluoranthene | 0.001 | mg/L | < 0.001 |
| Chrysene | 0.001 | mg/L | < 0.001 |
| Dibenz(a.h)anthracene | 0.001 | mg/L | < 0.001 |
| Fluoranthene | 0.001 | mg/L | < 0.001 |
| Fluorene | 0.001 | mg/L | < 0.001 |
| Indeno(1.2.3-cd)pyrene | 0.001 | mg/L | < 0.001 |

| Client Sample ID | | | RB270522 |
|---|---|---|---|
| Sample Matrix | | | Water |
| Eurofins Sample No. | | | S22-Jn0002982 |
| Date Sampled | | | May 26, 2022 |
| Test/Reference | LOR | Unit | |
| **Polycyclic Aromatic Hydrocarbons** | | | |
| Naphthalene | 0.001 | mg/L | < 0.001 |
| Phenanthrene | 0.001 | mg/L | < 0.001 |
| Pyrene | 0.001 | mg/L | < 0.001 |
| Total PAH* | 0.001 | mg/L | < 0.001 |
| 2-Fluorobiphenyl (surr.) | 1 | % | INT |
| p-Terphenyl-d14 (surr.) | 1 | % | 135 |
| **Organochlorine Pesticides** | | | |
| Chlordanes - Total | 0.002 | mg/L | < 0.002 |
| 4.4'-DDD | 0.0002 | mg/L | < 0.0002 |
| 4.4'-DDE | 0.0002 | mg/L | < 0.0002 |
| 4.4'-DDT | 0.0002 | mg/L | < 0.0002 |
| a-HCH | 0.0002 | mg/L | < 0.0002 |
| Aldrin | 0.0002 | mg/L | < 0.0002 |
| b-HCH | 0.0002 | mg/L | < 0.0002 |
| d-HCH | 0.0002 | mg/L | < 0.0002 |
| Dieldrin | 0.0002 | mg/L | < 0.0002 |
| Endosulfan I | 0.0002 | mg/L | < 0.0002 |
| Endosulfan II | 0.0002 | mg/L | < 0.0002 |
| Endosulfan sulphate | 0.0002 | mg/L | < 0.0002 |
| Endrin | 0.0002 | mg/L | < 0.0002 |
| Endrin aldehyde | 0.0002 | mg/L | < 0.0002 |
| Endrin ketone | 0.0002 | mg/L | < 0.0002 |
| g-HCH (Lindane) | 0.0002 | mg/L | < 0.0002 |
| Heptachlor | 0.0002 | mg/L | < 0.0002 |
| Heptachlor epoxide | 0.0002 | mg/L | < 0.0002 |
| Hexachlorobenzene | 0.0002 | mg/L | < 0.0002 |
| Methoxychlor | 0.0002 | mg/L | < 0.0002 |
| Toxaphene | 0.005 | mg/L | < 0.005 |
| Aldrin and Dieldrin (Total)* | 0.0002 | mg/L | < 0.0002 |
| DDT + DDE + DDD (Total)* | 0.0002 | mg/L | < 0.0002 |
| Vic EPA IWRG 621 OCP (Total)* | 0.002 | mg/L | < 0.002 |
| Vic EPA IWRG 621 Other OCP (Total)* | 0.002 | mg/L | < 0.002 |
| Dibutylchlorendate (surr.) | 1 | % | 84 |
| Tetrachloro-m-xylene (surr.) | 1 | % | 95 |
| **Organophosphorus Pesticides** | | | |
| Azinphos-methyl | 0.002 | mg/L | < 0.002 |
| Bolstar | 0.002 | mg/L | < 0.002 |
| Chlorfenvinphos | 0.02 | mg/L | < 0.02 |
| Chlorpyrifos | 0.002 | mg/L | < 0.002 |
| Chlorpyrifos-methyl | 0.002 | mg/L | < 0.002 |
| Coumaphos | 0.02 | mg/L | < 0.02 |
| Demeton-S | 0.002 | mg/L | < 0.002 |
| Demeton-O | 0.002 | mg/L | < 0.002 |
| Diazinon | 0.002 | mg/L | < 0.002 |
| Dichlorvos | 0.002 | mg/L | < 0.002 |
| Dimethoate | 0.002 | mg/L | < 0.002 |
| Disulfoton | 0.002 | mg/L | < 0.002 |
| EPN | 0.002 | mg/L | < 0.002 |
| Ethion | 0.002 | mg/L | < 0.002 |

| Client Sample ID | | | RB270522 |
|---|---|---|---|
| Sample Matrix | | | Water |
| Eurofins Sample No. | | | S22-Jn0002982 |
| Date Sampled | | | May 26, 2022 |
| Test/Reference | LOR | Unit | |
| **Organophosphorus Pesticides** | | | |
| Ethoprop | 0.002 | mg/L | < 0.002 |
| Ethyl parathion | 0.002 | mg/L | < 0.002 |
| Fenitrothion | 0.002 | mg/L | < 0.002 |
| Fensulfothion | 0.002 | mg/L | < 0.002 |
| Fenthion | 0.002 | mg/L | < 0.002 |
| Malathion | 0.002 | mg/L | < 0.002 |
| Merphos | 0.002 | mg/L | < 0.002 |
| Methyl parathion | 0.002 | mg/L | < 0.002 |
| Mevinphos | 0.002 | mg/L | < 0.002 |
| Monocrotophos | 0.002 | mg/L | < 0.002 |
| Naled | 0.002 | mg/L | < 0.002 |
| Omethoate | 0.02 | mg/L | < 0.02 |
| Phorate | 0.002 | mg/L | < 0.002 |
| Pirimiphos-methyl | 0.02 | mg/L | < 0.02 |
| Pyrazophos | 0.002 | mg/L | < 0.002 |
| Ronnel | 0.002 | mg/L | < 0.002 |
| Terbufos | 0.002 | mg/L | < 0.002 |
| Tetrachlorvinphos | 0.002 | mg/L | < 0.002 |
| Tokuthion | 0.002 | mg/L | < 0.002 |
| Trichloronate | 0.002 | mg/L | < 0.002 |
| Triphenylphosphate (surr.) | 1 | % | 105 |
| **Polychlorinated Biphenyls** | | | |
| Aroclor-1016 | 0.005 | mg/L | < 0.005 |
| Aroclor-1221 | 0.005 | mg/L | < 0.005 |
| Aroclor-1232 | 0.005 | mg/L | < 0.005 |
| Aroclor-1242 | 0.005 | mg/L | < 0.005 |
| Aroclor-1248 | 0.005 | mg/L | < 0.005 |
| Aroclor-1254 | 0.005 | mg/L | < 0.005 |
| Aroclor-1260 | 0.005 | mg/L | < 0.005 |
| Total PCB* | 0.005 | mg/L | < 0.005 |
| Dibutylchlorendate (surr.) | 1 | % | 84 |
| Tetrachloro-m-xylene (surr.) | 1 | % | 95 |
| **Heavy Metals** | | | |
| Arsenic | 0.001 | mg/L | < 0.001 |
| Cadmium | 0.0002 | mg/L | < 0.0002 |
| Chromium | 0.001 | mg/L | < 0.001 |
| Copper | 0.001 | mg/L | < 0.001 |
| Lead | 0.001 | mg/L | < 0.001 |
| Mercury | 0.0001 | mg/L | < 0.0001 |
| Nickel | 0.001 | mg/L | < 0.001 |
| Zinc | 0.005 | mg/L | < 0.005 |

## Sample History

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

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

| Description | Testing Site | Extracted | Holding Time |
|---|---|---|---|
| Eurofins Suite B4 | | | |
| Total Recoverable Hydrocarbons - 1999 NEPM Fractions | Sydney | Jun 06, 2022 | 7 Days |
| - Method: LTM-ORG-2010 TRH C6-C40 | | | |
| Total Recoverable Hydrocarbons - 2013 NEPM Fractions | Sydney | Jun 06, 2022 | 7 Days |
| - Method: LTM-ORG-2010 TRH C6-C40 | | | |
| Total Recoverable Hydrocarbons - 2013 NEPM Fractions | Sydney | Jun 06, 2022 | 7 Days |
| - Method: LTM-ORG-2010 TRH C6-C40 | | | |
| BTEX | Sydney | Jun 06, 2022 | 14 Days |
| - Method: LTM-ORG-2010 BTEX and Volatile TRH | | | |
| Polycyclic Aromatic Hydrocarbons | Sydney | Jun 06, 2022 | 7 Days |
| - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water | | | |
| Eurofins Suite B15 | | | |
| Organochlorine Pesticides | Sydney | Jun 06, 2022 | 7 Days |
| - Method: LTM-ORG-2220 OCP & PCB in Soil and Water | | | |
| Organophosphorus Pesticides | Sydney | Jun 06, 2022 | 7 Days |
| - Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS | | | |
| Polychlorinated Biphenyls | Sydney | Jun 06, 2022 | 7 Days |
| - Method: LTM-ORG-2220 OCP & PCB in Soil and Water | | | |
| Metals M8 | Sydney | Jun 06, 2022 | 28 Days |
| - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS | | | |

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IANZ # 1290

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**Address:** Level 20, Tower B, Citadel Tower 799 Pacific Highway
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NSW 2067

**Project Name:** DRAGONS
**Project ID:** SYDGE295047

**Order No.:**
**Report #:** 893864
**Phone:** +61 2 9406 1000
**Fax:** +61 2 9406 1004

**Received:** Jun 1, 2022 12:47 PM
**Due:** Jun 14, 2022
**Priority:** 1 Day
**Contact Name:** Matthew Locke

**Eurofins Analytical Services Manager : Asim Khan**

| Sample Detail | | | | | | CANCELLED | HOLD | Acid Sulfate Soils Field pH Test | Metals M8 | Eurofins Suite B15 | Moisture Set | Eurofins Suite B4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | X | X | X | X | X | X | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| **No** | **Sample ID** | **Sample Date** | **Sampling Time** | **Matrix** | **LAB ID** | | | | | | | |
| 1 | BH101_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002950 | | | | X | X | X | X |
| 2 | BH101_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0002951 | | | X | X | | X | X |
| 3 | BH101_2.4-2.6 | May 26, 2022 | | Soil | S22-Jn0002952 | | | X | X | | X | X |
| 4 | BH105_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002953 | | | | X | X | X | X |
| 5 | BH105_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0002954 | | | X | X | | X | X |
| 6 | BH105_2.0-2.2 | May 26, 2022 | | Soil | S22- | | | X | X | | X | X |

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**Eurofins Analytical Services Manager : Asim Khan**

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | X | X | X | X | X | X | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| | | | | | Jn0002955 | | | | | | | |
| 7 | BH106_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002956 | | | | X | X | X | X |
| 8 | BH106_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0002957 | | | X | X | | X | X |
| 9 | BH106_2.8-3.0 | May 26, 2022 | | Soil | S22-Jn0002958 | | | X | X | | X | X |
| 10 | BH107_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002959 | | | | X | X | X | X |
| 11 | BH107_0.9-1.0 | May 26, 2022 | | Soil | S22-Jn0002960 | | | X | X | | X | X |
| 12 | BH107_2.8-3.0 | May 26, 2022 | | Soil | S22-Jn0002961 | | | X | X | | X | X |

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**Eurofins Analytical Services Manager : Asim Khan**

| Sample Detail | | | | | | CANCELLED | HOLD | Acid Sulfate Soils Field pH Test | Metals M8 | Eurofins Suite B15 | Moisture Set | Eurofins Suite B4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | X | X | X | X | X | X | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| 13 | BH108_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002962 | | | | X | X | X | X |
| 14 | BH108_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0002963 | | | X | X | | X | X |
| 15 | BH108_2.8-3.0 | May 26, 2022 | | Soil | S22-Jn0002964 | | | X | X | | X | X |
| 16 | BH109_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002965 | | | | X | X | X | X |
| 17 | BH109_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0002966 | | | X | X | | X | X |
| 18 | BH109_2.8-3.0 | May 26, 2022 | | Soil | S22-Jn0002967 | | | X | X | | X | X |
| 19 | BH1010_0-0.1 | May 26, 2022 | | Soil | S22- | | | | X | X | X | X |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | X | X | X | X | X | X | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| | | | | | Jn0002968 | | | | | | | |
| 20 | BH1010_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002969 | | | | X | | X | X |
| 21 | BH1011_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002970 | | | | X | X | X | X |
| 22 | BH1011_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0002971 | | | X | X | | X | X |
| 23 | BH1011_2.8-3.0 | May 26, 2022 | | Soil | S22-Jn0002972 | | | X | X | | X | X |
| 24 | BH1013_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002973 | | | | X | | X | X |
| 25 | BH1013_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0002974 | | | X | X | | X | X |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | X | X | X | X | X | X | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| 26 | BH1013_2.8-3.0 | May 26, 2022 | | Soil | S22-Jn0002975 | | | X | X | | X | X |
| 27 | BH1014_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002976 | | | | X | X | X | X |
| 28 | BH1014_0.8-0.9 | May 26, 2022 | | Soil | S22-Jn0002977 | | | X | X | | X | X |
| 29 | BH1015_0-0.1 | May 26, 2022 | | Soil | S22-Jn0002978 | | | | X | X | X | X |
| 30 | BH1015_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002979 | | | X | X | | X | X |
| 31 | QA1 | May 26, 2022 | | Soil | S22-Jn0002980 | | | | X | X | X | X |
| 32 | QA1A | May 26, 2022 | | Soil | S22- | X | | | | | | |

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**Eurofins Environment Testing Australia Pty Ltd**
ABN: 50 005 085 521

**Melbourne**
6 Monterey Road
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Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

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Girraween NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

**Brisbane**
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**Newcastle**
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Penrose, Auckland 1061
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IANZ # 1327

**Christchurch**
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Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

**Company Name:** Coffey Environments Pty Ltd NSW
**Address:** Level 20, Tower B, Citadel Tower 799 Pacific Highway
Chatswood
NSW 2067

**Project Name:** DRAGONS
**Project ID:** SYDGE295047

**Order No.:**
**Report #:** 893864
**Phone:** +61 2 9406 1000
**Fax:** +61 2 9406 1004

**Received:** Jun 1, 2022 12:47 PM
**Due:** Jun 14, 2022
**Priority:** 1 Day
**Contact Name:** Matthew Locke

**Eurofins Analytical Services Manager : Asim Khan**

| Sample Detail | | | | | | CANCELLED | HOLD | Acid Sulfate Soils Field pH Test | Metals M8 | Eurofins Suite B15 | Moisture Set | Eurofins Suite B4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | X | X | X | X | X | X | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| | | | | | Jn0002981 | | | | | | | |
| 33 | RB270522 | May 26, 2022 | | Water | S22-Jn0002982 | | | | X | X | | X |
| 34 | BH101_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002983 | | X | | | | | |
| 35 | BH101_2.0-2.2 | May 26, 2022 | | Soil | S22-Jn0002984 | | X | | | | | |
| 36 | BH105_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002985 | | X | | | | | |
| 37 | BH105_2.5-2.7 | May 26, 2022 | | Soil | S22-Jn0002986 | | X | | | | | |
| 38 | BH106_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002987 | | X | | | | | |

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| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | X | X | X | X | X | X | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| 39 | BH106_2.0-2.2 | May 26, 2022 | | Soil | S22-Jn0002988 | | X | | | | | |
| 40 | BH107_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002989 | | X | | | | | |
| 41 | BH107_2.0-2.2 | May 26, 2022 | | Soil | S22-Jn0002990 | | X | | | | | |
| 42 | BH108_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002991 | | X | | | | | |
| 43 | BH108_2.0-2.2 | May 26, 2022 | | Soil | S22-Jn0002992 | | X | | | | | |
| 44 | BH109_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002993 | | X | | | | | |
| 45 | BH109_2.0-2.2 | May 26, 2022 | | Soil | S22- | | X | | | | | |

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| **External Laboratory** | | | | | | | | | | | | |
| | | | | | Jn0002994 | | | | | | | |
| 46 | BH1010_0.9-1.0 | May 26, 2022 | | Soil | S22-Jn0002995 | | X | | | | | |
| 47 | BH1011_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002996 | | X | | | | | |
| 48 | BH1011_2.0-2.2 | May 26, 2022 | | Soil | S22-Jn0002997 | | X | | | | | |
| 49 | BH1013_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0002998 | | X | | | | | |
| 50 | BH1013_2.0-2.2 | May 26, 2022 | | Soil | S22-Jn0002999 | | X | | | | | |
| 51 | BH1014_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0003000 | | X | | | | | |

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| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | X | X | X | X | X | X | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | | | | |
| **External Laboratory** | | | | | | | | | | | | |
| 52 | BH1015_1.0-1.1 | May 26, 2022 | | Soil | S22-Jn0003001 | | X | | | | | |
| 53 | QA2 | May 26, 2022 | | Soil | S22-Jn0003002 | | X | | | | | |
| 54 | QA2A | May 26, 2022 | | Soil | S22-Jn0003003 | | X | | | | | |
| 55 | RB260522 | May 26, 2022 | | Water | S22-Jn0003004 | | X | | | | | |
| **Test Counts** | | | | | | 1 | 22 | 18 | 32 | 12 | 31 | 32 |

## Internal Quality Control Review and Glossary

### General

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

### Holding Times

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

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

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

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

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

### Units

**mg/kg:** milligrams per kilogram
**mg/L:** milligrams per litre
**µg/L:** micrograms per litre
**ppm:** parts per million
**ppb:** parts per billion
**%:** Percentage
**org/100 mL:** Organisms per 100 millilitres
**NTU:** Nephelometric Turbidity Units
**MPN/100 mL:** Most Probable Number of organisms per 100 millilitres

### Terms

| | |
|---|---|
| **APHA** | American Public Health Association |
| **COC** | Chain of Custody |
| **CP** | Client Parent - QC was performed on samples pertaining to this report |
| **CRM** | Certified Reference Material (ISO17034) - reported as percent recovery. |
| **Dry** | Where a moisture has been determined on a solid sample the result is expressed on a dry basis. |
| **Duplicate** | A second piece of analysis from the same sample and reported in the same units as the result to show comparison. |
| **LOR** | Limit of Reporting. |
| **LCS** | Laboratory Control Sample - reported as percent recovery. |
| **Method Blank** | In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water. |
| **NCP** | Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within. |
| **RPD** | Relative Percent Difference between two Duplicate pieces of analysis. |
| **SPIKE** | Addition of the analyte to the sample and reported as percentage recovery. |
| **SRA** | Sample Receipt Advice |
| **Surr - Surrogate** | The addition of a like compound to the analyte target and reported as percentage recovery. |
| **TBTO** | Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits. |
| **TCLP** | Toxicity Characteristic Leaching Procedure |
| **TEQ** | Toxic Equivalency Quotient or Total Equivalence |
| **QSM** | US Department of Defense Quality Systems Manual Version 5.4 |
| **US EPA** | United States Environmental Protection Agency |
| **WA DWER** | Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA |

### QC - Acceptance Criteria

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

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

Results <10 times the LOR: No Limit

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

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

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

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

.

### QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

**Quality Control Results**

| Test | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|
| **Method Blank** | | | | | | | |
| **Total Recoverable Hydrocarbons** | | | | | | | |
| TRH C6-C9 | mg/L | < 0.02 | | | 0.02 | Pass | |
| TRH C10-C14 | mg/L | < 0.05 | | | 0.05 | Pass | |
| TRH C15-C28 | mg/L | < 0.1 | | | 0.1 | Pass | |
| TRH C29-C36 | mg/L | < 0.1 | | | 0.1 | Pass | |
| Naphthalene | mg/L | < 0.01 | | | 0.01 | Pass | |
| TRH C6-C10 | mg/L | < 0.02 | | | 0.02 | Pass | |
| TRH >C10-C16 | mg/L | < 0.05 | | | 0.05 | Pass | |
| TRH >C16-C34 | mg/L | < 0.1 | | | 0.1 | Pass | |
| TRH >C34-C40 | mg/L | < 0.1 | | | 0.1 | Pass | |
| **Method Blank** | | | | | | | |
| **BTEX** | | | | | | | |
| Benzene | mg/L | < 0.001 | | | 0.001 | Pass | |
| Toluene | mg/L | < 0.001 | | | 0.001 | Pass | |
| Ethylbenzene | mg/L | < 0.001 | | | 0.001 | Pass | |
| m&p-Xylenes | mg/L | < 0.002 | | | 0.002 | Pass | |
| o-Xylene | mg/L | < 0.001 | | | 0.001 | Pass | |
| Xylenes - Total* | mg/L | < 0.003 | | | 0.003 | Pass | |
| **Method Blank** | | | | | | | |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | | |
| Acenaphthene | mg/L | < 0.001 | | | 0.001 | Pass | |
| Acenaphthylene | mg/L | < 0.001 | | | 0.001 | Pass | |
| Anthracene | mg/L | < 0.001 | | | 0.001 | Pass | |
| Benz(a)anthracene | mg/L | < 0.001 | | | 0.001 | Pass | |
| Benzo(a)pyrene | mg/L | < 0.001 | | | 0.001 | Pass | |
| Benzo(b&j)fluoranthene | mg/L | < 0.001 | | | 0.001 | Pass | |
| Benzo(g.h.i)perylene | mg/L | < 0.001 | | | 0.001 | Pass | |
| Benzo(k)fluoranthene | mg/L | < 0.001 | | | 0.001 | Pass | |
| Chrysene | mg/L | < 0.001 | | | 0.001 | Pass | |
| Dibenz(a.h)anthracene | mg/L | < 0.001 | | | 0.001 | Pass | |
| Fluoranthene | mg/L | < 0.001 | | | 0.001 | Pass | |
| Fluorene | mg/L | < 0.001 | | | 0.001 | Pass | |
| Indeno(1.2.3-cd)pyrene | mg/L | < 0.001 | | | 0.001 | Pass | |
| Naphthalene | mg/L | < 0.001 | | | 0.001 | Pass | |
| Phenanthrene | mg/L | < 0.001 | | | 0.001 | Pass | |
| Pyrene | mg/L | < 0.001 | | | 0.001 | Pass | |
| **Method Blank** | | | | | | | |
| **Organochlorine Pesticides** | | | | | | | |
| Chlordanes - Total | mg/L | < 0.002 | | | 0.002 | Pass | |
| 4.4'-DDD | mg/L | < 0.0002 | | | 0.0002 | Pass | |
| 4.4'-DDE | mg/L | < 0.0002 | | | 0.0002 | Pass | |
| 4.4'-DDT | mg/L | < 0.0002 | | | 0.0002 | Pass | |
| a-HCH | mg/L | < 0.0002 | | | 0.0002 | Pass | |
| Aldrin | mg/L | < 0.0002 | | | 0.0002 | Pass | |
| b-HCH | mg/L | < 0.0002 | | | 0.0002 | Pass | |
| d-HCH | mg/L | < 0.0002 | | | 0.0002 | Pass | |
| Dieldrin | mg/L | < 0.0002 | | | 0.0002 | Pass | |
| Endosulfan I | mg/L | < 0.0002 | | | 0.0002 | Pass | |
| Endosulfan II | mg/L | < 0.0002 | | | 0.0002 | Pass | |
| Endosulfan sulphate | mg/L | < 0.0002 | | | 0.0002 | Pass | |
| Endrin | mg/L | < 0.0002 | | | 0.0002 | Pass | |

| Test | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|
| Endrin aldehyde | mg/L | < 0.0002 | | | 0.0002 | Pass | |
| Endrin ketone | mg/L | < 0.0002 | | | 0.0002 | Pass | |
| g-HCH (Lindane) | mg/L | < 0.0002 | | | 0.0002 | Pass | |
| Heptachlor | mg/L | < 0.0002 | | | 0.0002 | Pass | |
| Heptachlor epoxide | mg/L | < 0.0002 | | | 0.0002 | Pass | |
| Hexachlorobenzene | mg/L | < 0.0002 | | | 0.0002 | Pass | |
| Methoxychlor | mg/L | < 0.0002 | | | 0.0002 | Pass | |
| Toxaphene | mg/L | < 0.005 | | | 0.005 | Pass | |
| **Method Blank** | | | | | | | |
| **Organophosphorus Pesticides** | | | | | | | |
| Azinphos-methyl | mg/L | < 0.002 | | | 0.002 | Pass | |
| Bolstar | mg/L | < 0.002 | | | 0.002 | Pass | |
| Chlorfenvinphos | mg/L | < 0.02 | | | 0.02 | Pass | |
| Chlorpyrifos | mg/L | < 0.002 | | | 0.002 | Pass | |
| Chlorpyrifos-methyl | mg/L | < 0.002 | | | 0.002 | Pass | |
| Coumaphos | mg/L | < 0.02 | | | 0.02 | Pass | |
| Demeton-S | mg/L | < 0.002 | | | 0.002 | Pass | |
| Demeton-O | mg/L | < 0.002 | | | 0.002 | Pass | |
| Diazinon | mg/L | < 0.002 | | | 0.002 | Pass | |
| Dichlorvos | mg/L | < 0.002 | | | 0.002 | Pass | |
| Dimethoate | mg/L | < 0.002 | | | 0.002 | Pass | |
| Disulfoton | mg/L | < 0.002 | | | 0.002 | Pass | |
| EPN | mg/L | < 0.002 | | | 0.002 | Pass | |
| Ethion | mg/L | < 0.002 | | | 0.002 | Pass | |
| Ethoprop | mg/L | < 0.002 | | | 0.002 | Pass | |
| Ethyl parathion | mg/L | < 0.002 | | | 0.002 | Pass | |
| Fenitrothion | mg/L | < 0.002 | | | 0.002 | Pass | |
| Fensulfothion | mg/L | < 0.002 | | | 0.002 | Pass | |
| Fenthion | mg/L | < 0.002 | | | 0.002 | Pass | |
| Malathion | mg/L | < 0.002 | | | 0.002 | Pass | |
| Merphos | mg/L | < 0.002 | | | 0.002 | Pass | |
| Methyl parathion | mg/L | < 0.002 | | | 0.002 | Pass | |
| Mevinphos | mg/L | < 0.002 | | | 0.002 | Pass | |
| Monocrotophos | mg/L | < 0.002 | | | 0.002 | Pass | |
| Naled | mg/L | < 0.002 | | | 0.002 | Pass | |
| Omethoate | mg/L | < 0.02 | | | 0.02 | Pass | |
| Phorate | mg/L | < 0.002 | | | 0.002 | Pass | |
| Pirimiphos-methyl | mg/L | < 0.02 | | | 0.02 | Pass | |
| Pyrazophos | mg/L | < 0.002 | | | 0.002 | Pass | |
| Ronnel | mg/L | < 0.002 | | | 0.002 | Pass | |
| Terbufos | mg/L | < 0.002 | | | 0.002 | Pass | |
| Tetrachlorvinphos | mg/L | < 0.002 | | | 0.002 | Pass | |
| Tokuthion | mg/L | < 0.002 | | | 0.002 | Pass | |
| Trichloronate | mg/L | < 0.002 | | | 0.002 | Pass | |
| **Method Blank** | | | | | | | |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor-1016 | mg/L | < 0.005 | | | 0.005 | Pass | |
| Aroclor-1221 | mg/L | < 0.005 | | | 0.005 | Pass | |
| Aroclor-1232 | mg/L | < 0.005 | | | 0.005 | Pass | |
| Aroclor-1242 | mg/L | < 0.005 | | | 0.005 | Pass | |
| Aroclor-1248 | mg/L | < 0.005 | | | 0.005 | Pass | |
| Aroclor-1254 | mg/L | < 0.005 | | | 0.005 | Pass | |
| Aroclor-1260 | mg/L | < 0.005 | | | 0.005 | Pass | |
| Total PCB* | mg/L | < 0.005 | | | 0.005 | Pass | |

| Test | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|
| **LCS - % Recovery** | | | | | | | |
| **Total Recoverable Hydrocarbons** | | | | | | | |
| TRH C6-C9 | % | 73 | | | 70-130 | Pass | |
| TRH C10-C14 | % | 81 | | | 70-130 | Pass | |
| Naphthalene | % | 72 | | | 70-130 | Pass | |
| TRH C6-C10 | % | 73 | | | 70-130 | Pass | |
| TRH >C10-C16 | % | 80 | | | 70-130 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **BTEX** | | | | | | | |
| Benzene | % | 77 | | | 70-130 | Pass | |
| Toluene | % | 70 | | | 70-130 | Pass | |
| Ethylbenzene | % | 75 | | | 70-130 | Pass | |
| m&p-Xylenes | % | 75 | | | 70-130 | Pass | |
| o-Xylene | % | 74 | | | 70-130 | Pass | |
| Xylenes - Total* | % | 75 | | | 70-130 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | | |
| Acenaphthene | % | 90 | | | 70-130 | Pass | |
| Acenaphthylene | % | 93 | | | 70-130 | Pass | |
| Anthracene | % | 95 | | | 70-130 | Pass | |
| Benz(a)anthracene | % | 91 | | | 70-130 | Pass | |
| Benzo(a)pyrene | % | 89 | | | 70-130 | Pass | |
| Benzo(b&j)fluoranthene | % | 104 | | | 70-130 | Pass | |
| Benzo(g.h.i)perylene | % | 82 | | | 70-130 | Pass | |
| Benzo(k)fluoranthene | % | 87 | | | 70-130 | Pass | |
| Chrysene | % | 71 | | | 70-130 | Pass | |
| Dibenz(a.h)anthracene | % | 85 | | | 70-130 | Pass | |
| Fluoranthene | % | 102 | | | 70-130 | Pass | |
| Fluorene | % | 101 | | | 70-130 | Pass | |
| Indeno(1.2.3-cd)pyrene | % | 88 | | | 70-130 | Pass | |
| Naphthalene | % | 77 | | | 70-130 | Pass | |
| Phenanthrene | % | 99 | | | 70-130 | Pass | |
| Pyrene | % | 103 | | | 70-130 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Organochlorine Pesticides** | | | | | | | |
| Chlordanes - Total | % | 91 | | | 70-130 | Pass | |
| 4.4'-DDD | % | 105 | | | 70-130 | Pass | |
| 4.4'-DDE | % | 93 | | | 70-130 | Pass | |
| 4.4'-DDT | % | 92 | | | 70-130 | Pass | |
| a-HCH | % | 90 | | | 70-130 | Pass | |
| Aldrin | % | 95 | | | 70-130 | Pass | |
| b-HCH | % | 97 | | | 70-130 | Pass | |
| d-HCH | % | 97 | | | 70-130 | Pass | |
| Dieldrin | % | 95 | | | 70-130 | Pass | |
| Endosulfan I | % | 89 | | | 70-130 | Pass | |
| Endosulfan II | % | 95 | | | 70-130 | Pass | |
| Endosulfan sulphate | % | 97 | | | 70-130 | Pass | |
| Endrin | % | 89 | | | 70-130 | Pass | |
| Endrin aldehyde | % | 128 | | | 70-130 | Pass | |
| Endrin ketone | % | 95 | | | 70-130 | Pass | |
| g-HCH (Lindane) | % | 93 | | | 70-130 | Pass | |
| Heptachlor | % | 86 | | | 70-130 | Pass | |
| Heptachlor epoxide | % | 94 | | | 70-130 | Pass | |
| Hexachlorobenzene | % | 93 | | | 70-130 | Pass | |

| Test | | | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|---|---|
| Methoxychlor | | | % | 78 | | | 70-130 | Pass | |
| **LCS - % Recovery** | | | | | | | | | |
| **Organophosphorus Pesticides** | | | | | | | | | |
| Diazinon | | | % | 93 | | | 70-130 | Pass | |
| Dimethoate | | | % | 79 | | | 70-130 | Pass | |
| Ethion | | | % | 108 | | | 70-130 | Pass | |
| Fenitrothion | | | % | 94 | | | 70-130 | Pass | |
| Methyl parathion | | | % | 106 | | | 70-130 | Pass | |
| Mevinphos | | | % | 94 | | | 70-130 | Pass | |
| **LCS - % Recovery** | | | | | | | | | |
| **Polychlorinated Biphenyls** | | | | | | | | | |
| Aroclor-1016 | | | % | 88 | | | 70-130 | Pass | |
| Aroclor-1260 | | | % | 83 | | | 70-130 | Pass | |
| **Test** | **Lab Sample ID** | **QA Source** | **Units** | **Result 1** | | | **Acceptance Limits** | **Pass Limits** | **Qualifying Code** |
| **Spike - % Recovery** | | | | | | | | | |
| **Total Recoverable Hydrocarbons** | | | | Result 1 | | | | | |
| TRH C6-C9 | S22-My0069797 | NCP | % | 78 | | | 70-130 | Pass | |
| TRH C10-C14 | S22-Jn0005182 | NCP | % | 127 | | | 70-130 | Pass | |
| Naphthalene | S22-My0069797 | NCP | % | 86 | | | 70-130 | Pass | |
| TRH C6-C10 | S22-My0069797 | NCP | % | 77 | | | 70-130 | Pass | |
| TRH >C10-C16 | S22-Jn0005182 | NCP | % | 127 | | | 70-130 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **BTEX** | | | | Result 1 | | | | | |
| Benzene | S22-My0069797 | NCP | % | 86 | | | 70-130 | Pass | |
| Toluene | S22-My0069797 | NCP | % | 84 | | | 70-130 | Pass | |
| Ethylbenzene | S22-My0069797 | NCP | % | 85 | | | 70-130 | Pass | |
| m&p-Xylenes | S22-My0069797 | NCP | % | 84 | | | 70-130 | Pass | |
| o-Xylene | S22-My0069797 | NCP | % | 84 | | | 70-130 | Pass | |
| Xylenes - Total* | S22-My0069797 | NCP | % | 84 | | | 70-130 | Pass | |
| **Test** | **Lab Sample ID** | **QA Source** | **Units** | **Result 1** | | | **Acceptance Limits** | **Pass Limits** | **Qualifying Code** |
| **Duplicate** | | | | | | | | | |
| **Total Recoverable Hydrocarbons** | | | | Result 1 | Result 2 | RPD | | | |
| TRH C6-C9 | S22-My0074183 | NCP | mg/L | < 0.02 | < 0.02 | <1 | 30% | Pass | |
| TRH C10-C14 | R22-Jn0001793 | NCP | mg/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| TRH C15-C28 | R22-Jn0001793 | NCP | mg/L | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| TRH C29-C36 | R22-Jn0001793 | NCP | mg/L | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Naphthalene | S22-My0074183 | NCP | mg/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| TRH C6-C10 | S22-My0074183 | NCP | mg/L | < 0.02 | < 0.02 | <1 | 30% | Pass | |
| TRH >C10-C16 | R22-Jn0001793 | NCP | mg/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| TRH >C16-C34 | R22-Jn0001793 | NCP | mg/L | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| TRH >C34-C40 | R22-Jn0001793 | NCP | mg/L | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **BTEX** | | | | Result 1 | Result 2 | RPD | | | |
| Benzene | S22-My0074183 | NCP | mg/L | < 0.001 | < 0.001 | <1 | 30% | Pass | |
| Toluene | S22-My0074183 | NCP | mg/L | < 0.001 | < 0.001 | <1 | 30% | Pass | |
| Ethylbenzene | S22-My0074183 | NCP | mg/L | < 0.001 | < 0.001 | <1 | 30% | Pass | |
| m&p-Xylenes | S22-My0074183 | NCP | mg/L | < 0.002 | < 0.002 | <1 | 30% | Pass | |
| o-Xylene | S22-My0074183 | NCP | mg/L | < 0.001 | < 0.001 | <1 | 30% | Pass | |
| Xylenes - Total* | S22-My0074183 | NCP | mg/L | < 0.003 | < 0.003 | <1 | 30% | Pass | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Duplicate** | | | | | | | | | |
| **Polycyclic Aromatic Hydrocarbons** | | | | Result 1 | Result 2 | RPD | | | |
| Acenaphthene | S22-Jn0011536 | NCP | mg/L | < 0.001 | < 0.001 | <1 | 30% | Pass | |
| Acenaphthylene | S22-Jn0011536 | NCP | mg/L | < 0.001 | < 0.001 | <1 | 30% | Pass | |
| Anthracene | S22-Jn0011536 | NCP | mg/L | < 0.001 | < 0.001 | <1 | 30% | Pass | |
| Benz(a)anthracene | S22-Jn0011536 | NCP | mg/L | < 0.001 | < 0.001 | <1 | 30% | Pass | |
| Benzo(a)pyrene | S22-Jn0011536 | NCP | mg/L | < 0.001 | < 0.001 | <1 | 30% | Pass | |
| Benzo(b&j)fluoranthene | S22-Jn0011536 | NCP | mg/L | < 0.001 | < 0.001 | <1 | 30% | Pass | |
| Benzo(g.h.i)perylene | S22-Jn0011536 | NCP | mg/L | < 0.001 | < 0.001 | <1 | 30% | Pass | |
| Benzo(k)fluoranthene | S22-Jn0011536 | NCP | mg/L | < 0.001 | < 0.001 | <1 | 30% | Pass | |
| Chrysene | S22-Jn0011536 | NCP | mg/L | < 0.001 | < 0.001 | <1 | 30% | Pass | |
| Dibenz(a.h)anthracene | S22-Jn0011536 | NCP | mg/L | < 0.001 | < 0.001 | <1 | 30% | Pass | |
| Fluoranthene | S22-Jn0011536 | NCP | mg/L | < 0.001 | < 0.001 | <1 | 30% | Pass | |
| Fluorene | S22-Jn0011536 | NCP | mg/L | < 0.001 | < 0.001 | <1 | 30% | Pass | |
| Indeno(1.2.3-cd)pyrene | S22-Jn0011536 | NCP | mg/L | < 0.001 | < 0.001 | <1 | 30% | Pass | |
| Naphthalene | S22-Jn0011536 | NCP | mg/L | < 0.001 | < 0.001 | <1 | 30% | Pass | |
| Phenanthrene | S22-Jn0011536 | NCP | mg/L | < 0.001 | < 0.001 | <1 | 30% | Pass | |
| Pyrene | S22-Jn0011536 | NCP | mg/L | < 0.001 | < 0.001 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Organochlorine Pesticides** | | | | Result 1 | Result 2 | RPD | | | |
| Chlordanes - Total | S22-Jn0011536 | NCP | mg/L | < 0.002 | < 0.002 | <1 | 30% | Pass | |
| 4.4'-DDD | S22-Jn0011536 | NCP | mg/L | < 0.0002 | < 0.0002 | <1 | 30% | Pass | |
| 4.4'-DDE | S22-Jn0011536 | NCP | mg/L | < 0.0002 | < 0.0002 | <1 | 30% | Pass | |
| 4.4'-DDT | S22-Jn0011536 | NCP | mg/L | < 0.0002 | < 0.0002 | <1 | 30% | Pass | |
| a-HCH | S22-Jn0011536 | NCP | mg/L | < 0.0002 | < 0.0002 | <1 | 30% | Pass | |
| Aldrin | S22-Jn0011536 | NCP | mg/L | < 0.0002 | < 0.0002 | <1 | 30% | Pass | |
| b-HCH | S22-Jn0011536 | NCP | mg/L | < 0.0002 | < 0.0002 | <1 | 30% | Pass | |
| d-HCH | S22-Jn0011536 | NCP | mg/L | < 0.0002 | < 0.0002 | <1 | 30% | Pass | |
| Dieldrin | S22-Jn0011536 | NCP | mg/L | < 0.0002 | < 0.0002 | <1 | 30% | Pass | |
| Endosulfan I | S22-Jn0011536 | NCP | mg/L | < 0.0002 | < 0.0002 | <1 | 30% | Pass | |
| Endosulfan II | S22-Jn0011536 | NCP | mg/L | < 0.0002 | < 0.0002 | <1 | 30% | Pass | |
| Endosulfan sulphate | S22-Jn0011536 | NCP | mg/L | < 0.0002 | < 0.0002 | <1 | 30% | Pass | |
| Endrin | S22-Jn0011536 | NCP | mg/L | < 0.0002 | < 0.0002 | <1 | 30% | Pass | |
| Endrin aldehyde | S22-Jn0011536 | NCP | mg/L | < 0.0002 | < 0.0002 | <1 | 30% | Pass | |
| Endrin ketone | S22-Jn0011536 | NCP | mg/L | < 0.0002 | < 0.0002 | <1 | 30% | Pass | |
| g-HCH (Lindane) | S22-Jn0011536 | NCP | mg/L | < 0.0002 | < 0.0002 | <1 | 30% | Pass | |
| Heptachlor | S22-Jn0011536 | NCP | mg/L | < 0.0002 | < 0.0002 | <1 | 30% | Pass | |
| Heptachlor epoxide | S22-Jn0011536 | NCP | mg/L | < 0.0002 | < 0.0002 | <1 | 30% | Pass | |
| Hexachlorobenzene | S22-Jn0011536 | NCP | mg/L | < 0.0002 | < 0.0002 | <1 | 30% | Pass | |
| Methoxychlor | S22-Jn0011536 | NCP | mg/L | < 0.0002 | < 0.0002 | <1 | 30% | Pass | |
| Toxaphene | S22-Jn0011536 | NCP | mg/L | < 0.005 | < 0.005 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Polychlorinated Biphenyls** | | | | Result 1 | Result 2 | RPD | | | |
| Aroclor-1016 | S22-Jn0011536 | NCP | mg/L | < 0.005 | < 0.005 | <1 | 30% | Pass | |
| Aroclor-1221 | S22-Jn0011536 | NCP | mg/L | < 0.005 | < 0.005 | <1 | 30% | Pass | |
| Aroclor-1232 | S22-Jn0011536 | NCP | mg/L | < 0.005 | < 0.005 | <1 | 30% | Pass | |
| Aroclor-1242 | S22-Jn0011536 | NCP | mg/L | < 0.005 | < 0.005 | <1 | 30% | Pass | |
| Aroclor-1248 | S22-Jn0011536 | NCP | mg/L | < 0.005 | < 0.005 | <1 | 30% | Pass | |
| Aroclor-1254 | S22-Jn0011536 | NCP | mg/L | < 0.005 | < 0.005 | <1 | 30% | Pass | |
| Aroclor-1260 | S22-Jn0011536 | NCP | mg/L | < 0.005 | < 0.005 | <1 | 30% | Pass | |
| Total PCB* | S22-Jn0011536 | NCP | mg/L | < 0.005 | < 0.005 | <1 | 30% | Pass | |

## Comments

### Sample Integrity

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

### Qualifier Codes/Comments

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

### Authorised by:

| | |
|---|---|
| Asim Khan | Analytical Services Manager |
| Gabriele Cordero | Senior Analyst-Metal |
| Roopesh Rangarajan | Senior Analyst-Organic |
| Roopesh Rangarajan | Senior Analyst-Volatile |

**Glenn Jackson**
**General Manager**

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please click here.

# Additional Analysis FW: Eurofins Test Draft Results - Report 893864 : Site DRAGONS (SYDGE295047)

Asim Khan <AsimKhan@eurofins.com>

Fri 2022-06-10 3:45 PM

To: #AU04_Enviro_Sample_NSW <EnviroSampleNSW@eurofins.com>;Adam Bateup <AdamBateup@eurofins.com>



Additional analysis please.

Please let me know once logged.

Thanks,

Kind regards,

**Asim Khan**
Analytical Services Manager

**Eurofins Environment Testing Australia Pty Ltd**
**Phone:** +61 2 9900 8432
**Mobile:** +61 429 051 456

**E-mail:** AsimKhan@eurofins.com



***For sample receipt enquiries (eg. SRAs, changes to analysis) please contact EnvirosampleNSW@eurofins.com or 02 9900 8421 (7am – 9pm).***
***For despatch enquiries (eg. courier bookings, bottle orders) please contact AU04_Despatch_SYD@eurofins.com or 0488 400 929 (7:30am – 3:30pm).***

---

**From:** Locke, Matthew <Matthew.Locke@tetratech.com>
**Sent:** Friday, 10 June 2022 3:38 PM
**To:** Asim Khan <AsimKhan@eurofins.com>
**Subject:** RE: Eurofins Test Draft Results - Report 893864 : Site DRAGONS (SYDGE295047)

Asim
As discussed, can you please arrange testing the following samples for SPOCAS analysis on a standard TAT:

- BH101_1.0-1.2
- BH105_1.0-1.2
- BH106_1.0-1.2
- BH106_2.8-3.0
- BH107_0.9-1.0
- BH108_1.0-1.2
- BH108_2.8-3.0
- BH109_1.0-1.2
- BH1011_1.0-1.2
- BH1015_0.5-0.6

Please confirm receipt of these instructions.
Please issue the pending soil results as we may need to conduct further soil leachate testing.

Regards
Matt

eurofins | Environment Testing

www.eurofins.com.au EnviroSales@eurofins.com

**Eurofins Environment Testing Australia Pty Ltd**

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

**Brisbane**
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Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

**Newcastle**
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

**Eurofins ARL Pty Ltd**

ABN: 91 05 0159 898

**Perth**
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Welshpool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

**Eurofins Environment Testing NZ Limited**

NZBN: 9429046024954

**Auckland**
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

**Christchurch**
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

# Sample Receipt Advice

| | |
|---|---|
| **Company name:** | Coffey Environments Pty Ltd NSW |
| **Contact name:** | Matthew Locke |
| **Project name:** | ADDITIONAL - DRAGONS |
| **Project ID:** | ADDITIONAL - SYDGE295047 |
| **Turnaround time:** | 5 Day |
| **Date/Time received** | Jun 10, 2022 3:45 PM |
| **Eurofins reference** | 896736 |

## Sample Information

| | |
|---|---|
| ✓ | A detailed list of analytes logged into our LIMS, is included in the attached summary table. |
| ✓ | Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : 6.9 degrees Celsius. |
| ✓ | All samples have been received as described on the above COC. |
| ✓ | COC has been completed correctly. |
| ✓ | Attempt to chill was evident. |
| ✓ | Appropriately preserved sample containers have been used. |
| ✓ | All samples were received in good condition. |
| ✓ | Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times. |
| ✓ | Appropriate sample containers have been used. |
| ✓ | Sample containers for volatile analysis received with zero headspace. |
| X | Split sample sent to requested external lab. |
| X | Some samples have been subcontracted. |
| N/A | Custody Seals intact (if used). |

## Notes

## Contact

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

**Asim Khan on phone : or by email: AsimKhan@eurofins.com**

Results will be delivered electronically via email to Matthew Locke - Matthew.Locke@coffey.com.

*Note: A copy of these results will also be delivered to the general Coffey Environments Pty Ltd NSW email address.*

eurofins | Environment Testing

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

**Eurofins Environment Testing Australia Pty Ltd**
ABN: 50 005 085 521

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NATA # 1261 Site # 25079

**Eurofins ARL Pty Ltd**
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**Perth**
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NATA # 2377 Site # 2370

**Eurofins Environment Testing NZ Limited**
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**Auckland**
35 O'Rorke Road
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Phone : +64 9 526 45 51
IANZ # 1327

**Christchurch**
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

**Company Name:** Coffey Environments Pty Ltd NSW
**Address:** Level 20, Tower B, Citadel Tower 799 Pacific Highway
Chatswood
NSW 2067

**Project Name:** ADDITIONAL - DRAGONS
**Project ID:** ADDITIONAL - SYDGE295047

**Order No.:** PO5431AB
**Report #:** 896736
**Phone:** +61 2 9406 1000
**Fax:** +61 2 9406 1004

**Received:** Jun 10, 2022 3:45 PM
**Due:** Jun 17, 2022
**Priority:** 5 Day
**Contact Name:** Matthew Locke

**Eurofins Analytical Services Manager : Asim Khan**

| Sample Detail | | | | | | SPOCAS Suite | Moisture Set |
|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | X | X |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | |
| **External Laboratory** | | | | | | | |
| **No** | **Sample ID** | **Sample Date** | **Sampling Time** | **Matrix** | **LAB ID** | | |
| 1 | BH101_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0025674 | X | X |
| 2 | BH105_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0025675 | X | X |
| 3 | BH106_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0025676 | X | X |
| 4 | BH106_2.8-3.0 | May 26, 2022 | | Soil | S22-Jn0025677 | X | X |
| 5 | BH107_0.9-1.0 | May 26, 2022 | | Soil | S22-Jn0025678 | X | X |
| 6 | BH108_1.0-1.2 | May 26, 2022 | | Soil | S22- | X | X |

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

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

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

**Newcastle**
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

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ABN: 91 05 0159 898

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NATA # 2377 Site # 2370

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IANZ # 1327

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Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

**Company Name:** Coffey Environments Pty Ltd NSW
**Address:** Level 20, Tower B, Citadel Tower 799 Pacific Highway
Chatswood
NSW 2067

**Project Name:** ADDITIONAL - DRAGONS
**Project ID:** ADDITIONAL - SYDGE295047

**Order No.:** PO5431AB
**Report #:** 896736
**Phone:** +61 2 9406 1000
**Fax:** +61 2 9406 1004

**Received:** Jun 10, 2022 3:45 PM
**Due:** Jun 17, 2022
**Priority:** 5 Day
**Contact Name:** Matthew Locke

**Eurofins Analytical Services Manager : Asim Khan**

| Sample Detail | | | | | | SPOCAS Suite | Moisture Set |
|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | X | X |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | |
| **External Laboratory** | | | | | | | |
| | | | | | Jn0025679 | | |
| 7 | BH108_2.8-3.0 | May 26, 2022 | | Soil | S22-Jn0025680 | X | X |
| 8 | BH109_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0025681 | X | X |
| 9 | BH1011_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0025682 | X | X |
| 10 | BH1015_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0025683 | X | X |
| **Test Counts** | | | | | | 10 | 10 |

**Coffey Environments Pty Ltd NSW**
**Level 20, Tower B, Citadel Tower 799 Pacific Highway**
**Chatswood**
**NSW 2067**



**Attention:** **Matthew Locke**

**Report** **896736-S**
Project name ADDITIONAL - DRAGONS
Project ID ADDITIONAL - SYDGE295047
Received Date Jun 10, 2022

| **Client Sample ID** | | | **BH101_1.0-1.2** | **BH105_1.0-1.2** | **BH106_1.0-1.2** | **BH106_2.8-3.0** |
|---|---|---|---|---|---|---|
| **Sample Matrix** | | | **Soil** | **Soil** | **Soil** | **Soil** |
| **Eurofins Sample No.** | | | **S22-Jn0025674** | **S22-Jn0025675** | **S22-Jn0025676** | **S22-Jn0025677** |
| **Date Sampled** | | | **May 26, 2022** | **May 26, 2022** | **May 26, 2022** | **May 26, 2022** |
| Test/Reference | LOR | Unit | | | | |
| **Actual Acidity (NLM-3.2)** | | | | | | |
| pH-KCL (NLM-3.1) | 0.1 | pH Units | 4.4 | 4.4 | 4.4 | 4.9 |
| Titratable Actual Acidity (NLM-3.2) | 2 | mol H+/t | 74 | 95 | 80 | 12 |
| Titratable Actual Acidity (NLM-3.2) | 0.003 | % pyrite S | 0.12 | 0.15 | 0.13 | 0.020 |
| **Potential Acidity - Titratable Peroxide** | | | | | | |
| pH-OX | 0.1 | pH Units | 4.1 | 3.9 | 4.4 | 5.3 |
| Titratable Peroxide Acidity (s-TPA) | 0.02 | % pyrite S | 0.18 | 0.29 | 0.15 | 0.02 |
| Titratable Peroxide Acidity (a-TPA) | 2 | mol H+/t | 110 | 180 | 93 | 12 |
| Titratable Sulfidic Acidity (a-TSA) | 2 | mol H+/t | 36 | 88 | 12 | < 2 |
| Titratable Sulfidic Acidity (s-TSA) | 0.02 | % pyrite S | 0.06 | 0.14 | 0.02 | < 0.02 |
| **Extractable Sulfur** | | | | | | |
| Sulfur - KCl Extractable | 0.005 | % S | 0.060 | 0.050 | 0.020 | 0.010 |
| Peroxide Extractable Sulfur | 0.005 | % S | 0.090 | 0.15 | 0.040 | 0.010 |
| HCl Extractable Sulfur | 0.005 | % S | 0.080 | 0.090 | 0.030 | N/A |
| **Potential Acidity (SPOS)** | | | | | | |
| Peroxide Oxidisable Sulfur (s-SPOS) (NLM 2.2) | 0.02 | % S | 0.03 | 0.10 | < 0.02 | < 0.02 |
| Peroxide Oxidisable Sulfur (a-SPOS) (NLM 2.2) | 10 | mol H+/t | 19 | 62 | < 10 | < 10 |
| **Retained Acidity (S-NAS)** | | | | | | |
| Net Acid soluble sulfur (s-SNAS) NLM-4.1[S02] | 0.02 | % S | 0.03 | 0.06 | < 0.02 | N/A |
| Net Acid soluble sulfur (a-SNAS) NLM-4.1 | 10 | mol H+/t | 21 | 39 | < 10 | N/A |
| HCl Extractable Sulfur Correction Factor | 1 | factor | 2.0 | 2.0 | 2.0 | 2.0 |
| **Extractable Calcium** | | | | | | |
| Calcium - KCl Extractable | 0.005 | % Ca | 0.040 | 0.15 | 0.030 | 0.040 |
| Calcium - Peroxide | 0.005 | % Ca | 0.050 | 0.15 | 0.040 | 0.040 |
| Calcium - Acid Reacted | 0.005 | % Ca | < 0.005 | < 0.005 | < 0.005 | < 0.005 |
| Calcium - Acid Reacted (s-aCa) | 0.005 | % S | < 0.005 | < 0.005 | < 0.005 | < 0.005 |
| Calcium - Acid Reacted (a-aCa) | 0.005 | mol H+/t | < 0.005 | < 0.005 | < 0.005 | < 0.005 |
| **Extractable Magnesium** | | | | | | |
| Magnesium - KCl Extractable | 0.005 | % Mg | 0.080 | 0.080 | 0.080 | 0.060 |
| Magnesium - Peroxide | 0.005 | % Mg | 0.090 | 0.090 | 0.090 | 0.070 |
| Magnesium - Acid Reacted | 0.005 | % Mg | 0.010 | 0.005 | < 0.005 | 0.006 |
| Magnesium - Acid Reacted (s-aCa) | 0.005 | % S | 0.013 | 0.007 | < 0.005 | 0.008 |
| Magnesium - Acid Reacted (a-aCa) | 0.005 | mol H+/t | 8.3 | 4.3 | < 0.005 | 5.1 |
| **Acid Neutralising Capacity (ANCE)** | | | | | | |
| Acid Neutralising Capacity - (ANCE) | 0.02 | % CaCO3 | N/A | N/A | N/A | N/A |
| Acid Neutralising Capacity - (s-ANCE) | 0.02 | % S | N/A | N/A | N/A | N/A |
| Acid Neutralising Capacity - (a-ANCE) | 10 | mol H+/t | n/a | n/a | n/a | n/a |

| Client Sample ID | | | BH101_1.0-1.2 | BH105_1.0-1.2 | BH106_1.0-1.2 | BH106_2.8-3.0 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0025674 | S22-Jn0025675 | S22-Jn0025676 | S22-Jn0025677 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Acid Neutralising Capacity (ANCbt)** | | | | | | |
| ANC Fineness Factor | | factor | 1.5 | 1.5 | 1.5 | 1.5 |
| **Net Acidity (Including ANC)** | | | | | | |
| SPOCAS - Net Acidity - ASSMAC (Acidity Units) | 10 | mol H+/t | 110 | 200 | 92 | 16 |
| SPOCAS - Net Acidity - ASSMAC (Sulfur Units) | 0.02 | % S | 0.18 | 0.31 | 0.15 | 0.03 |
| SPOCAS - Liming rate - ASSMAC | 1 | kg CaCO3/t | 9.0 | 15 | 7.0 | 1.0 |
| **Extraneous Material** | | | | | | |
| <2mm Fraction | 0.005 | g | 37 | 13 | 29 | 31 |
| >2mm Fraction | 0.005 | g | < 0.005 | 6.8 | 4.8 | < 0.005 |
| Analysed Material | 0.1 | % | 100 | 66 | 86 | 100 |
| Extraneous Material | 0.1 | % | < 0.1 | 34 | 14 | < 0.1 |
| | | | | | | |
| % Moisture | 1 | % | 18 | 18 | 18 | 14 |

| Client Sample ID | | | BH107_0.9-1.0 | BH108_1.0-1.2 | BH108_2.8-3.0 | BH109_1.0-1.2 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0025678 | S22-Jn0025679 | S22-Jn0025680 | S22-Jn0025681 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Actual Acidity (NLM-3.2)** | | | | | | |
| pH-KCL (NLM-3.1) | 0.1 | pH Units | 4.3 | 4.4 | 4.6 | 4.2 |
| Titratable Actual Acidity (NLM-3.2) | 2 | mol H+/t | 130 | 67 | 36 | 140 |
| Titratable Actual Acidity (NLM-3.2) | 0.003 | % pyrite S | 0.21 | 0.11 | 0.060 | 0.22 |
| **Potential Acidity - Titratable Peroxide** | | | | | | |
| pH-OX | 0.1 | pH Units | 4.4 | 4.5 | 4.9 | 4.0 |
| Titratable Peroxide Acidity (s-TPA) | 0.02 | % pyrite S | 0.25 | 0.12 | 0.07 | 0.28 |
| Titratable Peroxide Acidity (a-TPA) | 2 | mol H+/t | 160 | 78 | 43 | 180 |
| Titratable Sulfidic Acidity (a-TSA) | 2 | mol H+/t | 27 | 10 | < 2 | 41 |
| Titratable Sulfidic Acidity (s-TSA) | 0.02 | % pyrite S | 0.04 | 0.02 | < 0.02 | 0.07 |
| **Extractable Sulfur** | | | | | | |
| Sulfur - KCl Extractable | 0.005 | % S | 0.040 | 0.020 | 0.040 | 0.070 |
| Peroxide Extractable Sulfur | 0.005 | % S | 0.060 | 0.030 | 0.050 | 0.11 |
| HCl Extractable Sulfur | 0.005 | % S | 0.050 | 0.030 | N/A | 0.10 |
| **Potential Acidity (SPOS)** | | | | | | |
| Peroxide Oxidisable Sulfur (s-SPOS) (NLM 2.2) | 0.02 | % S | < 0.02 | < 0.02 | < 0.02 | 0.04 |
| Peroxide Oxidisable Sulfur (a-SPOS) (NLM 2.2) | 10 | mol H+/t | 11 | < 10 | < 10 | 22 |
| **Retained Acidity (S-NAS)** | | | | | | |
| Net Acid soluble sulfur (s-SNAS) NLM-4.1[S02] | 0.02 | % S | < 0.02 | < 0.02 | N/A | 0.03 |
| Net Acid soluble sulfur (a-SNAS) NLM-4.1 | 10 | mol H+/t | 11 | < 10 | N/A | 21 |
| HCl Extractable Sulfur Correction Factor | 1 | factor | 2.0 | 2.0 | 2.0 | 2.0 |
| **Extractable Calcium** | | | | | | |
| Calcium - KCl Extractable | 0.005 | % Ca | 0.040 | 0.070 | 0.040 | 0.040 |
| Calcium - Peroxide | 0.005 | % Ca | 0.040 | 0.070 | 0.040 | 0.040 |
| Calcium - Acid Reacted | 0.005 | % Ca | < 0.005 | < 0.005 | < 0.005 | < 0.005 |
| Calcium - Acid Reacted (s-aCa) | 0.005 | % S | < 0.005 | < 0.005 | < 0.005 | < 0.005 |
| Calcium - Acid Reacted (a-aCa) | 0.005 | mol H+/t | < 0.005 | < 0.005 | < 0.005 | < 0.005 |

| Client Sample ID | | | BH107_0.9-1.0 | BH108_1.0-1.2 | BH108_2.8-3.0 | BH109_1.0-1.2 |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0025678 | S22-Jn0025679 | S22-Jn0025680 | S22-Jn0025681 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Extractable Magnesium** | | | | | | |
| Magnesium - KCl Extractable | 0.005 | % Mg | 0.11 | 0.070 | 0.080 | 0.060 |
| Magnesium - Peroxide | 0.005 | % Mg | 0.12 | 0.080 | 0.090 | 0.070 |
| Magnesium - Acid Reacted | 0.005 | % Mg | 0.010 | < 0.005 | 0.011 | 0.008 |
| Magnesium - Acid Reacted (s-aCa) | 0.005 | % S | 0.014 | < 0.005 | 0.014 | 0.011 |
| Magnesium - Acid Reacted (a-aCa) | 0.005 | mol H+/t | 8.4 | < 0.005 | 8.7 | 6.7 |
| **Acid Neutralising Capacity (ANCE)** | | | | | | |
| Acid Neutralising Capacity - (ANCE) | 0.02 | % CaCO3 | N/A | N/A | N/A | N/A |
| Acid Neutralising Capacity - (s-ANCE) | 0.02 | % S | N/A | N/A | N/A | N/A |
| Acid Neutralising Capacity - (a-ANCE) | 10 | mol H+/t | n/a | n/a | n/a | n/a |
| **Acid Neutralising Capacity (ANCbt)** | | | | | | |
| ANC Fineness Factor | | factor | 1.5 | 1.5 | 1.5 | 1.5 |
| **Net Acidity (Including ANC)** | | | | | | |
| SPOCAS - Net Acidity - ASSMAC (Acidity Units) | 10 | mol H+/t | 150 | 76 | 42 | 180 |
| SPOCAS - Net Acidity - ASSMAC (Sulfur Units) | 0.02 | % S | 0.25 | 0.12 | 0.07 | 0.29 |
| SPOCAS - Liming rate - ASSMAC | 1 | kg CaCO3/t | 11 | 6.0 | 3.0 | 13 |
| **Extraneous Material** | | | | | | |
| <2mm Fraction | 0.005 | g | 13 | 23 | 28 | 23 |
| >2mm Fraction | 0.005 | g | 10.0 | < 0.005 | < 0.005 | 1.3 |
| Analysed Material | 0.1 | % | 56 | 100 | 100 | 95 |
| Extraneous Material | 0.1 | % | 44 | < 0.1 | < 0.1 | 5.4 |
| | | | | | | |
| % Moisture | 1 | % | 19 | 18 | 18 | 15 |

| Client Sample ID | | | BH1011_1.0-1.2 | BH1015_0.5-0.6 |
|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil |
| Eurofins Sample No. | | | S22-Jn0025682 | S22-Jn0025683 |
| Date Sampled | | | May 26, 2022 | May 26, 2022 |
| Test/Reference | LOR | Unit | | |
| **Actual Acidity (NLM-3.2)** | | | | |
| pH-KCL (NLM-3.1) | 0.1 | pH Units | 4.2 | 4.4 |
| Titratable Actual Acidity (NLM-3.2) | 2 | mol H+/t | 91 | 81 |
| Titratable Actual Acidity (NLM-3.2) | 0.003 | % pyrite S | 0.15 | 0.13 |
| **Potential Acidity - Titratable Peroxide** | | | | |
| pH-OX | 0.1 | pH Units | 4.2 | 3.8 |
| Titratable Peroxide Acidity (s-TPA) | 0.02 | % pyrite S | 0.20 | 0.25 |
| Titratable Peroxide Acidity (a-TPA) | 2 | mol H+/t | 120 | 150 |
| Titratable Sulfidic Acidity (a-TSA) | 2 | mol H+/t | 33 | 73 |
| Titratable Sulfidic Acidity (s-TSA) | 0.02 | % pyrite S | 0.05 | 0.12 |
| **Extractable Sulfur** | | | | |
| Sulfur - KCl Extractable | 0.005 | % S | 0.040 | 0.020 |
| Peroxide Extractable Sulfur | 0.005 | % S | 0.060 | 0.050 |
| HCl Extractable Sulfur | 0.005 | % S | 0.050 | 0.030 |
| **Potential Acidity (SPOS)** | | | | |
| Peroxide Oxidisable Sulfur (s-SPOS) (NLM 2.2) | 0.02 | % S | < 0.02 | 0.03 |
| Peroxide Oxidisable Sulfur (a-SPOS) (NLM 2.2) | 10 | mol H+/t | 12 | 16 |

| Client Sample ID | | | BH1011_1.0-1.2 | BH1015_0.5-0.6 |
|---|---|---|---|---|
| **Sample Matrix** | | | **Soil** | **Soil** |
| **Eurofins Sample No.** | | | **S22-Jn0025682** | **S22-Jn0025683** |
| **Date Sampled** | | | **May 26, 2022** | **May 26, 2022** |
| Test/Reference | LOR | Unit | | |
| **Retained Acidity (S-NAS)** | | | | |
| Net Acid soluble sulfur (s-SNAS) NLM-4.1[S02] | 0.02 | % S | < 0.02 | < 0.02 |
| Net Acid soluble sulfur (a-SNAS) NLM-4.1 | 10 | mol H+/t | < 10 | < 10 |
| HCl Extractable Sulfur Correction Factor | 1 | factor | 2.0 | 2.0 |
| **Extractable Calcium** | | | | |
| Calcium - KCl Extractable | 0.005 | % Ca | 0.050 | 0.050 |
| Calcium - Peroxide | 0.005 | % Ca | 0.060 | 0.060 |
| Calcium - Acid Reacted | 0.005 | % Ca | < 0.005 | < 0.005 |
| Calcium - Acid Reacted (s-aCa) | 0.005 | % S | < 0.005 | < 0.005 |
| Calcium - Acid Reacted (a-aCa) | 0.005 | mol H+/t | < 0.005 | < 0.005 |
| **Extractable Magnesium** | | | | |
| Magnesium - KCl Extractable | 0.005 | % Mg | 0.050 | 0.040 |
| Magnesium - Peroxide | 0.005 | % Mg | 0.050 | 0.050 |
| Magnesium - Acid Reacted | 0.005 | % Mg | 0.005 | < 0.005 |
| Magnesium - Acid Reacted (s-aCa) | 0.005 | % S | 0.007 | < 0.005 |
| Magnesium - Acid Reacted (a-aCa) | 0.005 | mol H+/t | 4.4 | < 0.005 |
| **Acid Neutralising Capacity (ANCE)** | | | | |
| Acid Neutralising Capacity - (ANCE) | 0.02 | % CaCO3 | N/A | N/A |
| Acid Neutralising Capacity - (s-ANCE) | 0.02 | % S | N/A | N/A |
| Acid Neutralising Capacity - (a-ANCE) | 10 | mol H+/t | n/a | n/a |
| **Acid Neutralising Capacity (ANCbt)** | | | | |
| ANC Fineness Factor | | factor | 1.5 | 1.5 |
| **Net Acidity (Including ANC)** | | | | |
| SPOCAS - Net Acidity - ASSMAC (Acidity Units) | 10 | mol H+/t | 110 | 100 |
| SPOCAS - Net Acidity - ASSMAC (Sulfur Units) | 0.02 | % S | 0.17 | 0.17 |
| SPOCAS - Liming rate - ASSMAC | 1 | kg CaCO3/t | 8.0 | 8.0 |
| **Extraneous Material** | | | | |
| <2mm Fraction | 0.005 | g | 29 | 23 |
| >2mm Fraction | 0.005 | g | < 0.005 | 1.0 |
| Analysed Material | 0.1 | % | 100 | 96 |
| Extraneous Material | 0.1 | % | < 0.1 | 4.2 |
| | | | | |
| % Moisture | 1 | % | 22 | 18 |

## Sample History

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

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

| Description | Testing Site | Extracted | Holding Time |
|---|---|---|---|
| SPOCAS Suite | | | |
| SPOCAS Suite | Brisbane | Jun 10, 2022 | 6 Week |
| - Method: LTM-GEN-7050 | | | |
| Extraneous Material | Brisbane | Jun 20, 2022 | 6 Week |
| - Method: LTM-GEN-7050/7070 | | | |
| % Moisture | Sydney | Jun 17, 2022 | 14 Days |
| - Method: LTM-GEN-7080 Moisture | | | |

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

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

**Newcastle**
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Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

**Eurofins ARL Pty Ltd**
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**Perth**
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Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

**Eurofins Environment Testing NZ Limited**
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**Auckland**
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

**Christchurch**
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

| | | | |
|---|---|---|---|
| **Company Name:** | Coffey Environments Pty Ltd NSW | **Order No.:** | PO5431AB |
| **Address:** | Level 20, Tower B, Citadel Tower 799 Pacific Highway<br>Chatswood<br>NSW 2067 | **Report #:** | 896736 |
| | | **Phone:** | +61 2 9406 1000 |
| | | **Fax:** | +61 2 9406 1004 |
| **Project Name:** | ADDITIONAL - DRAGONS | | |
| **Project ID:** | ADDITIONAL - SYDGE295047 | | |

| | | |
|---|---|---|
| **Received:** | Jun 10, 2022 3:45 PM | |
| **Due:** | Jun 17, 2022 | |
| **Priority:** | 5 Day | |
| **Contact Name:** | Matthew Locke | |

**Eurofins Analytical Services Manager : Asim Khan**

| Sample Detail | | | | | | SPOCAS Suite | Moisture Set |
|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | X | X |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | |
| **External Laboratory** | | | | | | | |
| **No** | **Sample ID** | **Sample Date** | **Sampling Time** | **Matrix** | **LAB ID** | | |
| 1 | BH101_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0025674 | X | X |
| 2 | BH105_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0025675 | X | X |
| 3 | BH106_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0025676 | X | X |
| 4 | BH106_2.8-3.0 | May 26, 2022 | | Soil | S22-Jn0025677 | X | X |
| 5 | BH107_0.9-1.0 | May 26, 2022 | | Soil | S22-Jn0025678 | X | X |
| 6 | BH108_1.0-1.2 | May 26, 2022 | | Soil | S22- | X | X |

eurofins | Environment Testing

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**Address:** Level 20, Tower B, Citadel Tower 799 Pacific Highway
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**Project Name:** ADDITIONAL - DRAGONS
**Project ID:** ADDITIONAL - SYDGE295047

**Order No.:** PO5431AB
**Report #:** 896736
**Phone:** +61 2 9406 1000
**Fax:** +61 2 9406 1004

**Received:** Jun 10, 2022 3:45 PM
**Due:** Jun 17, 2022
**Priority:** 5 Day
**Contact Name:** Matthew Locke

**Eurofins Analytical Services Manager : Asim Khan**

| Sample Detail | | | | | | SPOCAS Suite | Moisture Set |
|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | | |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | X |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | X | X |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | |
| **External Laboratory** | | | | | | | |
| | | | | | Jn0025679 | | |
| 7 | BH108_2.8-3.0 | May 26, 2022 | | Soil | S22-Jn0025680 | X | X |
| 8 | BH109_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0025681 | X | X |
| 9 | BH1011_1.0-1.2 | May 26, 2022 | | Soil | S22-Jn0025682 | X | X |
| 10 | BH1015_0.5-0.6 | May 26, 2022 | | Soil | S22-Jn0025683 | X | X |
| **Test Counts** | | | | | | 10 | 10 |

## Internal Quality Control Review and Glossary

### General

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

### Holding Times

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

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

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

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

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

### Units

**mg/kg:** milligrams per kilogram
**mg/L:** milligrams per litre
**µg/L:** micrograms per litre
**ppm:** parts per million
**ppb:** parts per billion
**%:** Percentage
**org/100 mL:** Organisms per 100 millilitres
**NTU:** Nephelometric Turbidity Units
**MPN/100 mL:** Most Probable Number of organisms per 100 millilitres

### Terms

| | |
|---|---|
| **APHA** | American Public Health Association |
| **COC** | Chain of Custody |
| **CP** | Client Parent - QC was performed on samples pertaining to this report |
| **CRM** | Certified Reference Material (ISO17034) - reported as percent recovery. |
| **Dry** | Where a moisture has been determined on a solid sample the result is expressed on a dry basis. |
| **Duplicate** | A second piece of analysis from the same sample and reported in the same units as the result to show comparison. |
| **LOR** | Limit of Reporting. |
| **LCS** | Laboratory Control Sample - reported as percent recovery. |
| **Method Blank** | In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water. |
| **NCP** | Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within. |
| **RPD** | Relative Percent Difference between two Duplicate pieces of analysis. |
| **SPIKE** | Addition of the analyte to the sample and reported as percentage recovery. |
| **SRA** | Sample Receipt Advice |
| **Surr - Surrogate** | The addition of a like compound to the analyte target and reported as percentage recovery. |
| **TBTO** | Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits. |
| **TCLP** | Toxicity Characteristic Leaching Procedure |
| **TEQ** | Toxic Equivalency Quotient or Total Equivalence |
| **QSM** | US Department of Defense Quality Systems Manual Version 5.4 |
| **US EPA** | United States Environmental Protection Agency |
| **WA DWER** | Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA |

### QC - Acceptance Criteria

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

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

Results <10 times the LOR: No Limit

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

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

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

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

.

### QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

**Quality Control Results**

| Test | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|
| **LCS - % Recovery** | | | | | | | |
| **Actual Acidity (NLM-3.2)** | | | | | | | |
| pH-KCL (NLM-3.1) | % | 97 | | | 80-120 | Pass | |
| Titratable Actual Acidity (NLM-3.2) | % | 104 | | | 80-120 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Extractable Sulfur** | | | | | | | |
| HCl Extractable Sulfur | % | 96 | | | 80-120 | Pass | |

| Test | Lab Sample ID | QA Source | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|---|---|
| **Duplicate** | | | | | | | | | |
| **Actual Acidity (NLM-3.2)** | | | | Result 1 | Result 2 | RPD | | | |
| pH-KCL (NLM-3.1) | S22-Jn0025674 | CP | pH Units | 4.4 | 4.4 | <1 | 20% | Pass | |
| Titratable Actual Acidity (NLM-3.2) | S22-Jn0025674 | CP | mol H+/t | 74 | 75 | 1.0 | 20% | Pass | |
| Titratable Actual Acidity (NLM-3.2) | S22-Jn0025674 | CP | % pyrite S | 0.12 | 0.12 | 1.0 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Potential Acidity - Titratable Peroxide** | | | | Result 1 | Result 2 | RPD | | | |
| pH-OX | S22-Jn0025674 | CP | pH Units | 4.1 | 4.1 | 1.0 | 20% | Pass | |
| Titratable Peroxide Acidity (s-TPA) | S22-Jn0025674 | CP | % pyrite S | 0.18 | 0.18 | <1 | 30% | Pass | |
| Titratable Peroxide Acidity (a-TPA) | S22-Jn0025674 | CP | mol H+/t | 110 | 110 | <1 | 20% | Pass | |
| Titratable Sulfidic Acidity (a-TSA) | S22-Jn0025674 | CP | mol H+/t | 36 | 36 | <1 | 30% | Pass | |
| Titratable Sulfidic Acidity (s-TSA) | S22-Jn0025674 | CP | % pyrite S | 0.06 | 0.06 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Extractable Sulfur** | | | | Result 1 | Result 2 | RPD | | | |
| Sulfur - KCl Extractable | S22-Jn0025674 | CP | % S | 0.060 | 0.060 | 2.0 | 30% | Pass | |
| Peroxide Extractable Sulfur | S22-Jn0025674 | CP | % S | 0.090 | 0.090 | <1 | 20% | Pass | |
| HCl Extractable Sulfur | S22-Jn0025674 | CP | % S | 0.080 | 0.080 | <1 | 20% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Potential Acidity (SPOS)** | | | | Result 1 | Result 2 | RPD | | | |
| Peroxide Oxidisable Sulfur (s-SPOS) (NLM 2.2) | S22-Jn0025674 | CP | % S | 0.03 | 0.03 | 3.0 | 30% | Pass | |
| Peroxide Oxidisable Sulfur (a-SPOS) (NLM 2.2) | S22-Jn0025674 | CP | mol H+/t | 19 | 18 | 3.0 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Retained Acidity (S-NAS)** | | | | Result 1 | Result 2 | RPD | | | |
| Net Acid soluble sulfur (s-SNAS) NLM-4.1 | S22-Jn0025674 | CP | % S | 0.03 | 0.03 | 8.0 | 30% | Pass | |
| Net Acid soluble sulfur (a-SNAS) NLM-4.1 | S22-Jn0025674 | CP | mol H+/t | 21 | 19 | 8.0 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Extractable Calcium** | | | | Result 1 | Result 2 | RPD | | | |
| Calcium - KCl Extractable | S22-Jn0025674 | CP | % Ca | 0.040 | 0.040 | 1.0 | 30% | Pass | |
| Calcium - Peroxide | S22-Jn0025674 | CP | % Ca | 0.050 | 0.050 | <1 | 20% | Pass | |
| Calcium - Acid Reacted | S22-Jn0025674 | CP | % Ca | < 0.005 | < 0.005 | <1 | 30% | Pass | |
| Calcium - Acid Reacted (s-aCa) | S22-Jn0025674 | CP | % S | < 0.005 | < 0.005 | <1 | 30% | Pass | |
| Calcium - Acid Reacted (a-aCa) | S22-Jn0025674 | CP | mol H+/t | < 0.005 | < 0.005 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Extractable Magnesium** | | | | Result 1 | Result 2 | RPD | | | |
| Magnesium - KCl Extractable | S22-Jn0025674 | CP | % Mg | 0.080 | 0.080 | 2.0 | 30% | Pass | |
| Magnesium - Peroxide | S22-Jn0025674 | CP | % Mg | 0.090 | 0.090 | 1.0 | 20% | Pass | |
| Magnesium - Acid Reacted | S22-Jn0025674 | CP | % Mg | 0.010 | 0.009 | 9.0 | 30% | Pass | |
| Magnesium - Acid Reacted (s-aCa) | S22-Jn0025674 | CP | % S | 0.013 | 0.012 | 9.0 | 30% | Pass | |
| Magnesium - Acid Reacted (a-aCa) | S22-Jn0025674 | CP | mol H+/t | 8.3 | 7.6 | 9.0 | 30% | Pass | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Duplicate** | | | | | | | | | |
| **Acid Neutralising Capacity (ANCE)** | | | | Result 1 | Result 2 | RPD | | | |
| Acid Neutralising Capacity - (ANCE) | S22-Jn0025674 | CP | % CaCO3 | N/A | N/A | N/A | 30% | Pass | |
| Acid Neutralising Capacity - (a-ANCE) | S22-Jn0025674 | CP | mol H+/t | n/a | n/a | N/A | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Acid Neutralising Capacity (ANCbt)** | | | | Result 1 | Result 2 | RPD | | | |
| ANC Fineness Factor | S22-Jn0025674 | CP | factor | 1.5 | 1.5 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Net Acidity (Including ANC)** | | | | Result 1 | Result 2 | RPD | | | |
| SPOCAS - Net Acidity - ASSMAC (Acidity Units) | S22-Jn0025674 | CP | mol H+/t | 110 | 110 | 2.0 | 30% | Pass | |
| SPOCAS - Net Acidity - ASSMAC (Sulfur Units) | S22-Jn0025674 | CP | % S | 0.18 | 0.18 | 2.0 | 30% | Pass | |
| SPOCAS - Liming rate - ASSMAC | S22-Jn0025674 | CP | kg CaCO3/t | 9.0 | 8.0 | 2.0 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| | | | | Result 1 | Result 2 | RPD | | | |
| % Moisture | S22-Jn0048561 | NCP | % | 20 | 20 | <1 | 30% | Pass | |

## Comments

### Sample Integrity

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

### Qualifier Codes/Comments

| Code | Description |
|---|---|
| S02 | Retained Acidity is Reported when the pHKCl is less than pH 4.5 |

### Authorised by:

| | |
|---|---|
| Quinn Raw | Analytical Services Manager |
| Myles Clark | Senior Analyst-SPOCAS |

**Glenn Jackson**
**General Manager**

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please click here.

ALS Environmental

# CERTIFICATE OF ANALYSIS

| | | | |
|---|---|---|---|
| **Work Order** | : **ES2219426** | Page | : 1 of 7 |
| Client | : **TETRA TECH COFFEY PTY LTD** | Laboratory | : Environmental Division Sydney |
| Contact | : MR MATTHEW LOCKE | Contact | : Graeme Jablonskas |
| Address | : | Address | : 277-289 Woodpark Road Smithfield NSW Australia 2164 |
| Telephone | : +61 02 9911 1000 | Telephone | : +6138549 9609 |
| Project | : SYDGE295047 Dragons | Date Samples Received | : 02-Jun-2022 14:55 |
| Order number | : SYDGE295047 | Date Analysis Commenced | : 06-Jun-2022 |
| C-O-C number | : ---- | Issue Date | : 09-Jun-2022 20:58 |
| Sampler | : Wendy Cadelago | | |
| Site | : | | |
| Quote number | : EN/222 | | |
| No. of samples received | : 1 | | |
| No. of samples analysed | : 1 | | |

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

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 Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

**Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.**

## *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.

| *Signatories* | *Position* | *Accreditation Category* |
|---|---|---|
| Edwandy Fadjar | Organic Coordinator | Sydney Inorganics, Smithfield, NSW |
| Edwandy Fadjar | Organic Coordinator | Sydney Organics, Smithfield, NSW |
| Wisam Marassa | Inorganics Coordinator | Sydney Inorganics, Smithfield, NSW |

## 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.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : 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
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP068: Where reported, Total Chlordane (sum) is the sum of the reported concentrations of cis-Chlordane and trans-Chlordane at or above the LOR.
- EP068: Where reported, Total OCP is the sum of the reported concentrations of all Organochlorine Pesticides at or above LOR.
- EP075(SIM): Where reported, Total Cresol is the sum of the reported concentrations of 2-Methylphenol and 3- & 4-Methylphenol at or above the LOR.

## Analytical Results

| Sub-Matrix: SOIL (Matrix: SOIL) | | | Sample ID | QA1A | ---- | ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 27-May-2022 00:00 | ---- | ---- | ---- | ---- |
| Compound | CAS Number | LOR | Unit | ES2219426-001 | -------- | -------- | -------- | -------- |
| | | | | Result | ---- | ---- | ---- | ---- |
| **EA055: Moisture Content (Dried @ 105-110°C)** | | | | | | | | |
| Moisture Content | ---- | 1.0 | % | **27.8** | ---- | ---- | ---- | ---- |
| **EG005(ED093)T: Total Metals by ICP-AES** | | | | | | | | |
| Arsenic | 7440-38-2 | 5 | mg/kg | **6** | ---- | ---- | ---- | ---- |
| Cadmium | 7440-43-9 | 1 | mg/kg | <1 | ---- | ---- | ---- | ---- |
| Chromium | 7440-47-3 | 2 | mg/kg | **19** | ---- | ---- | ---- | ---- |
| Copper | 7440-50-8 | 5 | mg/kg | **26** | ---- | ---- | ---- | ---- |
| Lead | 7439-92-1 | 5 | mg/kg | **40** | ---- | ---- | ---- | ---- |
| Nickel | 7440-02-0 | 2 | mg/kg | **15** | ---- | ---- | ---- | ---- |
| Zinc | 7440-66-6 | 5 | mg/kg | **89** | ---- | ---- | ---- | ---- |
| **EG035T: Total Recoverable Mercury by FIMS** | | | | | | | | |
| Mercury | 7439-97-6 | 0.1 | mg/kg | <0.1 | ---- | ---- | ---- | ---- |
| **EP066: Polychlorinated Biphenyls (PCB)** | | | | | | | | |
| Total Polychlorinated biphenyls | ---- | 0.1 | mg/kg | <0.1 | ---- | ---- | ---- | ---- |
| **EP068A: Organochlorine Pesticides (OC)** | | | | | | | | |
| alpha-BHC | 319-84-6 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| Hexachlorobenzene (HCB) | 118-74-1 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| beta-BHC | 319-85-7 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| gamma-BHC | 58-89-9 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| delta-BHC | 319-86-8 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| Heptachlor | 76-44-8 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| Aldrin | 309-00-2 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| Heptachlor epoxide | 1024-57-3 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| ^ Total Chlordane (sum) | ---- | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| trans-Chlordane | 5103-74-2 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| alpha-Endosulfan | 959-98-8 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| cis-Chlordane | 5103-71-9 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| Dieldrin | 60-57-1 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| 4.4`-DDE | 72-55-9 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| Endrin | 72-20-8 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| beta-Endosulfan | 33213-65-9 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| ^ Endosulfan (sum) | 115-29-7 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| 4.4`-DDD | 72-54-8 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| Endrin aldehyde | 7421-93-4 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| Endosulfan sulfate | 1031-07-8 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |

## Analytical Results

| Sub-Matrix: SOIL (Matrix: SOIL) | | | | Sample ID | QA1A | ---- | ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 27-May-2022 00:00 | ---- | ---- | ---- | ---- |
| Compound | CAS Number | LOR | Unit | | ES2219426-001 | -------- | -------- | -------- | -------- |
| | | | | | Result | ---- | ---- | ---- | ---- |
| **EP068A: Organochlorine Pesticides (OC) - Continued** | | | | | | | | | |
| **4.4`-DDT** | 50-29-3 | 0.2 | mg/kg | | <0.2 | ---- | ---- | ---- | ---- |
| **Endrin ketone** | 53494-70-5 | 0.05 | mg/kg | | <0.05 | ---- | ---- | ---- | ---- |
| **Methoxychlor** | 72-43-5 | 0.2 | mg/kg | | <0.2 | ---- | ---- | ---- | ---- |
| ^ **Sum of Aldrin + Dieldrin** | 309-00-2/60-57-1 | 0.05 | mg/kg | | <0.05 | ---- | ---- | ---- | ---- |
| ^ **Sum of DDD + DDE + DDT** | 72-54-8/72-55-9/50-2 | 0.05 | mg/kg | | <0.05 | ---- | ---- | ---- | ---- |
| **EP068B: Organophosphorus Pesticides (OP)** | | | | | | | | | |
| **Dichlorvos** | 62-73-7 | 0.05 | mg/kg | | <0.05 | ---- | ---- | ---- | ---- |
| **Demeton-S-methyl** | 919-86-8 | 0.05 | mg/kg | | <0.05 | ---- | ---- | ---- | ---- |
| **Monocrotophos** | 6923-22-4 | 0.2 | mg/kg | | <0.2 | ---- | ---- | ---- | ---- |
| **Dimethoate** | 60-51-5 | 0.05 | mg/kg | | <0.05 | ---- | ---- | ---- | ---- |
| **Diazinon** | 333-41-5 | 0.05 | mg/kg | | <0.05 | ---- | ---- | ---- | ---- |
| **Chlorpyrifos-methyl** | 5598-13-0 | 0.05 | mg/kg | | <0.05 | ---- | ---- | ---- | ---- |
| **Parathion-methyl** | 298-00-0 | 0.2 | mg/kg | | <0.2 | ---- | ---- | ---- | ---- |
| **Malathion** | 121-75-5 | 0.05 | mg/kg | | <0.05 | ---- | ---- | ---- | ---- |
| **Fenthion** | 55-38-9 | 0.05 | mg/kg | | <0.05 | ---- | ---- | ---- | ---- |
| **Chlorpyrifos** | 2921-88-2 | 0.05 | mg/kg | | <0.05 | ---- | ---- | ---- | ---- |
| **Parathion** | 56-38-2 | 0.2 | mg/kg | | <0.2 | ---- | ---- | ---- | ---- |
| **Pirimphos-ethyl** | 23505-41-1 | 0.05 | mg/kg | | <0.05 | ---- | ---- | ---- | ---- |
| **Chlorfenvinphos** | 470-90-6 | 0.05 | mg/kg | | <0.05 | ---- | ---- | ---- | ---- |
| **Bromophos-ethyl** | 4824-78-6 | 0.05 | mg/kg | | <0.05 | ---- | ---- | ---- | ---- |
| **Fenamiphos** | 22224-92-6 | 0.05 | mg/kg | | <0.05 | ---- | ---- | ---- | ---- |
| **Prothiofos** | 34643-46-4 | 0.05 | mg/kg | | <0.05 | ---- | ---- | ---- | ---- |
| **Ethion** | 563-12-2 | 0.05 | mg/kg | | <0.05 | ---- | ---- | ---- | ---- |
| **Carbophenothion** | 786-19-6 | 0.05 | mg/kg | | <0.05 | ---- | ---- | ---- | ---- |
| **Azinphos Methyl** | 86-50-0 | 0.05 | mg/kg | | <0.05 | ---- | ---- | ---- | ---- |
| **EP075(SIM)B: Polynuclear Aromatic Hydrocarbons** | | | | | | | | | |
| **Naphthalene** | 91-20-3 | 0.5 | mg/kg | | <0.5 | ---- | ---- | ---- | ---- |
| **Acenaphthylene** | 208-96-8 | 0.5 | mg/kg | | <0.5 | ---- | ---- | ---- | ---- |
| **Acenaphthene** | 83-32-9 | 0.5 | mg/kg | | <0.5 | ---- | ---- | ---- | ---- |
| **Fluorene** | 86-73-7 | 0.5 | mg/kg | | <0.5 | ---- | ---- | ---- | ---- |
| **Phenanthrene** | 85-01-8 | 0.5 | mg/kg | | <0.5 | ---- | ---- | ---- | ---- |
| **Anthracene** | 120-12-7 | 0.5 | mg/kg | | <0.5 | ---- | ---- | ---- | ---- |
| **Fluoranthene** | 206-44-0 | 0.5 | mg/kg | | <0.5 | ---- | ---- | ---- | ---- |
| **Pyrene** | 129-00-0 | 0.5 | mg/kg | | <0.5 | ---- | ---- | ---- | ---- |

## Analytical Results

| Sub-Matrix: SOIL (Matrix: SOIL) | | | Sample ID | QA1A | ---- | ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 27-May-2022 00:00 | ---- | ---- | ---- | ---- |
| Compound | CAS Number | LOR | Unit | ES2219426-001 | -------- | -------- | -------- | -------- |
| | | | | Result | ---- | ---- | ---- | ---- |
| **EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued** | | | | | | | | |
| Benz(a)anthracene | 56-55-3 | 0.5 | mg/kg | <0.5 | ---- | ---- | ---- | ---- |
| Chrysene | 218-01-9 | 0.5 | mg/kg | <0.5 | ---- | ---- | ---- | ---- |
| Benzo(b+j)fluoranthene | 205-99-2 205-82-3 | 0.5 | mg/kg | <0.5 | ---- | ---- | ---- | ---- |
| Benzo(k)fluoranthene | 207-08-9 | 0.5 | mg/kg | <0.5 | ---- | ---- | ---- | ---- |
| Benzo(a)pyrene | 50-32-8 | 0.5 | mg/kg | <0.5 | ---- | ---- | ---- | ---- |
| Indeno(1.2.3.cd)pyrene | 193-39-5 | 0.5 | mg/kg | <0.5 | ---- | ---- | ---- | ---- |
| Dibenz(a.h)anthracene | 53-70-3 | 0.5 | mg/kg | <0.5 | ---- | ---- | ---- | ---- |
| Benzo(g.h.i)perylene | 191-24-2 | 0.5 | mg/kg | <0.5 | ---- | ---- | ---- | ---- |
| ^ Sum of polycyclic aromatic hydrocarbons | ---- | 0.5 | mg/kg | <0.5 | ---- | ---- | ---- | ---- |
| ^ Benzo(a)pyrene TEQ (zero) | ---- | 0.5 | mg/kg | <0.5 | ---- | ---- | ---- | ---- |
| ^ Benzo(a)pyrene TEQ (half LOR) | ---- | 0.5 | mg/kg | **0.6** | ---- | ---- | ---- | ---- |
| ^ Benzo(a)pyrene TEQ (LOR) | ---- | 0.5 | mg/kg | **1.2** | ---- | ---- | ---- | ---- |
| **EP080/071: Total Petroleum Hydrocarbons** | | | | | | | | |
| C6 - C9 Fraction | ---- | 10 | mg/kg | <10 | ---- | ---- | ---- | ---- |
| C10 - C14 Fraction | ---- | 50 | mg/kg | <50 | ---- | ---- | ---- | ---- |
| C15 - C28 Fraction | ---- | 100 | mg/kg | <100 | ---- | ---- | ---- | ---- |
| C29 - C36 Fraction | ---- | 100 | mg/kg | <100 | ---- | ---- | ---- | ---- |
| ^ C10 - C36 Fraction (sum) | ---- | 50 | mg/kg | <50 | ---- | ---- | ---- | ---- |
| **EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions** | | | | | | | | |
| C6 - C10 Fraction | C6_C10 | 10 | mg/kg | <10 | ---- | ---- | ---- | ---- |
| ^ C6 - C10 Fraction minus BTEX (F1) | C6_C10-BTEX | 10 | mg/kg | <10 | ---- | ---- | ---- | ---- |
| >C10 - C16 Fraction | ---- | 50 | mg/kg | <50 | ---- | ---- | ---- | ---- |
| >C16 - C34 Fraction | ---- | 100 | mg/kg | <100 | ---- | ---- | ---- | ---- |
| >C34 - C40 Fraction | ---- | 100 | mg/kg | <100 | ---- | ---- | ---- | ---- |
| ^ >C10 - C40 Fraction (sum) | ---- | 50 | mg/kg | <50 | ---- | ---- | ---- | ---- |
| ^ >C10 - C16 Fraction minus Naphthalene (F2) | ---- | 50 | mg/kg | <50 | ---- | ---- | ---- | ---- |
| **EP080: BTEXN** | | | | | | | | |
| Benzene | 71-43-2 | 0.2 | mg/kg | <0.2 | ---- | ---- | ---- | ---- |
| Toluene | 108-88-3 | 0.5 | mg/kg | <0.5 | ---- | ---- | ---- | ---- |
| Ethylbenzene | 100-41-4 | 0.5 | mg/kg | <0.5 | ---- | ---- | ---- | ---- |
| meta- & para-Xylene | 108-38-3 106-42-3 | 0.5 | mg/kg | <0.5 | ---- | ---- | ---- | ---- |
| ortho-Xylene | 95-47-6 | 0.5 | mg/kg | <0.5 | ---- | ---- | ---- | ---- |

## Analytical Results

| Sub-Matrix: SOIL (Matrix: SOIL) | | | | Sample ID | QA1A | ---- | ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 27-May-2022 00:00 | ---- | ---- | ---- | ---- |
| Compound | CAS Number | LOR | Unit | | ES2219426-001 | -------- | -------- | -------- | -------- |
| | | | | | Result | ---- | ---- | ---- | ---- |
| **EP080: BTEXN - Continued** | | | | | | | | | |
| ^ **Sum of BTEX** | ---- | 0.2 | mg/kg | | <0.2 | ---- | ---- | ---- | ---- |
| ^ **Total Xylenes** | ---- | 0.5 | mg/kg | | <0.5 | ---- | ---- | ---- | ---- |
| **Naphthalene** | 91-20-3 | 1 | mg/kg | | <1 | ---- | ---- | ---- | ---- |
| **EP066S: PCB Surrogate** | | | | | | | | | |
| **Decachlorobiphenyl** | 2051-24-3 | 0.1 | % | | **62.4** | ---- | ---- | ---- | ---- |
| **EP068S: Organochlorine Pesticide Surrogate** | | | | | | | | | |
| **Dibromo-DDE** | 21655-73-2 | 0.05 | % | | **86.9** | ---- | ---- | ---- | ---- |
| **EP068T: Organophosphorus Pesticide Surrogate** | | | | | | | | | |
| **DEF** | 78-48-8 | 0.05 | % | | **74.4** | ---- | ---- | ---- | ---- |
| **EP075(SIM)S: Phenolic Compound Surrogates** | | | | | | | | | |
| **Phenol-d6** | 13127-88-3 | 0.5 | % | | **79.8** | ---- | ---- | ---- | ---- |
| **2-Chlorophenol-D4** | 93951-73-6 | 0.5 | % | | **86.6** | ---- | ---- | ---- | ---- |
| **2.4.6-Tribromophenol** | 118-79-6 | 0.5 | % | | **71.2** | ---- | ---- | ---- | ---- |
| **EP075(SIM)T: PAH Surrogates** | | | | | | | | | |
| **2-Fluorobiphenyl** | 321-60-8 | 0.5 | % | | **92.3** | ---- | ---- | ---- | ---- |
| **Anthracene-d10** | 1719-06-8 | 0.5 | % | | **95.8** | ---- | ---- | ---- | ---- |
| **4-Terphenyl-d14** | 1718-51-0 | 0.5 | % | | **92.1** | ---- | ---- | ---- | ---- |
| **EP080S: TPH(V)/BTEX Surrogates** | | | | | | | | | |
| **1.2-Dichloroethane-D4** | 17060-07-0 | 0.2 | % | | **109** | ---- | ---- | ---- | ---- |
| **Toluene-D8** | 2037-26-5 | 0.2 | % | | **91.4** | ---- | ---- | ---- | ---- |
| **4-Bromofluorobenzene** | 460-00-4 | 0.2 | % | | **86.4** | ---- | ---- | ---- | ---- |

## Surrogate Control Limits

Sub-Matrix: **SOIL**

| Compound | CAS Number | Recovery Limits (%) Low | High |
|---|---|---|---|
| **EP066S: PCB Surrogate** | | | |
| **Decachlorobiphenyl** | 2051-24-3 | 39 | 149 |
| **EP068S: Organochlorine Pesticide Surrogate** | | | |
| **Dibromo-DDE** | 21655-73-2 | 49 | 147 |
| **EP068T: Organophosphorus Pesticide Surrogate** | | | |
| **DEF** | 78-48-8 | 35 | 143 |
| **EP075(SIM)S: Phenolic Compound Surrogates** | | | |
| **Phenol-d6** | 13127-88-3 | 63 | 123 |
| **2-Chlorophenol-D4** | 93951-73-6 | 66 | 122 |
| **2.4.6-Tribromophenol** | 118-79-6 | 40 | 138 |
| **EP075(SIM)T: PAH Surrogates** | | | |
| **2-Fluorobiphenyl** | 321-60-8 | 70 | 122 |
| **Anthracene-d10** | 1719-06-8 | 66 | 128 |
| **4-Terphenyl-d14** | 1718-51-0 | 65 | 129 |
| **EP080S: TPH(V)/BTEX Surrogates** | | | |
| **1.2-Dichloroethane-D4** | 17060-07-0 | 73 | 133 |
| **Toluene-D8** | 2037-26-5 | 74 | 132 |
| **4-Bromofluorobenzene** | 460-00-4 | 72 | 130 |

ALS Environmental

# QUALITY CONTROL REPORT

| | | | |
|---|---|---|---|
| **Work Order** | : **ES2219426** | Page | : 1 of 11 |
| Client | : **TETRA TECH COFFEY PTY LTD** | Laboratory | : Environmental Division Sydney |
| Contact | : MR MATTHEW LOCKE | Contact | : Graeme Jablonskas |
| Address | : | Address | : 277-289 Woodpark Road Smithfield NSW Australia 2164 |
| Telephone | : +61 02 9911 1000 | Telephone | : +6138549 9609 |
| Project | : SYDGE295047 Dragons | Date Samples Received | : 02-Jun-2022 |
| Order number | : SYDGE295047 | Date Analysis Commenced | : 06-Jun-2022 |
| C-O-C number | : ---- | Issue Date | : 09-Jun-2022 |
| Sampler | : Wendy Cadelago | | |
| Site | : | | |
| Quote number | : EN/222 | | |
| No. of samples received | : 1 | | |
| No. of samples analysed | : 1 | | |

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

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.

| *Signatories* | *Position* | *Accreditation Category* |
|---|---|---|
| Edwandy Fadjar | Organic Coordinator | Sydney Inorganics, Smithfield, NSW |
| Edwandy Fadjar | Organic Coordinator | Sydney Organics, Smithfield, NSW |
| Wisam Marassa | Inorganics Coordinator | Sydney Inorganics, Smithfield, NSW |

## General Comments

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

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

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

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

## Laboratory Duplicate (DUP) Report

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

Sub-Matrix: **SOIL**

| | | | | Laboratory Duplicate (DUP) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
| **EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4386828)** | | | | | | | | | |
| ES2219367-017 | Anonymous | EG005T: Cadmium | 7440-43-9 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EG005T: Chromium | 7440-47-3 | 2 | mg/kg | 31 | 27 | 12.4 | 0% - 50% |
| | | EG005T: Nickel | 7440-02-0 | 2 | mg/kg | 11 | 9 | 15.6 | No Limit |
| | | EG005T: Arsenic | 7440-38-2 | 5 | mg/kg | 14 | 8 | 49.8 | No Limit |
| | | EG005T: Copper | 7440-50-8 | 5 | mg/kg | 21 | 21 | 0.0 | No Limit |
| | | EG005T: Lead | 7439-92-1 | 5 | mg/kg | 29 | 21 | 33.7 | No Limit |
| | | EG005T: Zinc | 7440-66-6 | 5 | mg/kg | 43 | 34 | 25.1 | No Limit |
| ES2219428-001 | Anonymous | EG005T: Cadmium | 7440-43-9 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EG005T: Chromium | 7440-47-3 | 2 | mg/kg | 21 | 25 | 18.6 | 0% - 50% |
| | | EG005T: Nickel | 7440-02-0 | 2 | mg/kg | 8 | 8 | 0.0 | No Limit |
| | | EG005T: Arsenic | 7440-38-2 | 5 | mg/kg | 6 | 7 | 21.4 | No Limit |
| | | EG005T: Copper | 7440-50-8 | 5 | mg/kg | 20 | 21 | 0.0 | No Limit |
| | | EG005T: Lead | 7439-92-1 | 5 | mg/kg | 51 | 61 | 17.9 | 0% - 50% |
| | | EG005T: Zinc | 7440-66-6 | 5 | mg/kg | 44 | 56 | 23.5 | 0% - 50% |
| **EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4386836)** | | | | | | | | | |
| ES2219369-004 | Anonymous | EA055: Moisture Content | ---- | 0.1 | % | 15.0 | 15.1 | 0.9 | 0% - 50% |
| ES2219914-001 | Anonymous | EA055: Moisture Content | ---- | 0.1 | % | 35.7 | 38.1 | 6.5 | 0% - 20% |
| **EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4386827)** | | | | | | | | | |
| ES2219367-017 | Anonymous | EG035T: Mercury | 7439-97-6 | 0.1 | mg/kg | <0.1 | <0.1 | 0.0 | No Limit |
| ES2219428-001 | Anonymous | EG035T: Mercury | 7439-97-6 | 0.1 | mg/kg | <0.1 | <0.1 | 0.0 | No Limit |
| **EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4379950)** | | | | | | | | | |
| ES2219062-045 | Anonymous | EP066: Total Polychlorinated biphenyls | ---- | 0.1 | mg/kg | <0.1 | <0.1 | 0.0 | No Limit |
| ES2219426-001 | QA1A | EP066: Total Polychlorinated biphenyls | ---- | 0.1 | mg/kg | <0.1 | <0.1 | 0.0 | No Limit |

Sub-Matrix: **SOIL**

| | | | | Laboratory Duplicate (DUP) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Sample ID* | *Method: Compound* | *CAS Number* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD (%)* | *Acceptable RPD (%)* |
| **EP068A: Organochlorine Pesticides (OC) (QC Lot: 4379953)** | | | | | | | | | |
| ES2219062-045 | Anonymous | EP068: alpha-BHC | 319-84-6 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Hexachlorobenzene (HCB) | 118-74-1 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: beta-BHC | 319-85-7 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: gamma-BHC | 58-89-9 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: delta-BHC | 319-86-8 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Heptachlor | 76-44-8 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Aldrin | 309-00-2 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Heptachlor epoxide | 1024-57-3 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: trans-Chlordane | 5103-74-2 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: alpha-Endosulfan | 959-98-8 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: cis-Chlordane | 5103-71-9 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Dieldrin | 60-57-1 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: 4.4`-DDE | 72-55-9 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Endrin | 72-20-8 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: beta-Endosulfan | 33213-65-9 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: 4.4`-DDD | 72-54-8 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Endrin aldehyde | 7421-93-4 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Endosulfan sulfate | 1031-07-8 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Endrin ketone | 53494-70-5 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: 4.4`-DDT | 50-29-3 | 0.2 | mg/kg | <0.2 | <0.2 | 0.0 | No Limit |
| | | EP068: Methoxychlor | 72-43-5 | 0.2 | mg/kg | <0.2 | <0.2 | 0.0 | No Limit |
| ES2219426-001 | QA1A | EP068: alpha-BHC | 319-84-6 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Hexachlorobenzene (HCB) | 118-74-1 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: beta-BHC | 319-85-7 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: gamma-BHC | 58-89-9 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: delta-BHC | 319-86-8 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Heptachlor | 76-44-8 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Aldrin | 309-00-2 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Heptachlor epoxide | 1024-57-3 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: trans-Chlordane | 5103-74-2 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: alpha-Endosulfan | 959-98-8 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: cis-Chlordane | 5103-71-9 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Dieldrin | 60-57-1 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: 4.4`-DDE | 72-55-9 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Endrin | 72-20-8 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: beta-Endosulfan | 33213-65-9 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: 4.4`-DDD | 72-54-8 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Endrin aldehyde | 7421-93-4 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Endosulfan sulfate | 1031-07-8 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Endrin ketone | 53494-70-5 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |

Sub-Matrix: **SOIL**

| | | | | Laboratory Duplicate (DUP) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Sample ID* | *Method: Compound* | *CAS Number* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD (%)* | *Acceptable RPD (%)* |
| **EP068A: Organochlorine Pesticides (OC) (QC Lot: 4379953) - continued** | | | | | | | | | |
| ES2219426-001 | QA1A | EP068: 4.4`-DDT | 50-29-3 | 0.2 | mg/kg | <0.2 | <0.2 | 0.0 | No Limit |
| | | EP068: Methoxychlor | 72-43-5 | 0.2 | mg/kg | <0.2 | <0.2 | 0.0 | No Limit |
| **EP068B: Organophosphorus Pesticides (OP) (QC Lot: 4379953)** | | | | | | | | | |
| ES2219062-045 | Anonymous | EP068: Dichlorvos | 62-73-7 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Demeton-S-methyl | 919-86-8 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Dimethoate | 60-51-5 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Diazinon | 333-41-5 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Chlorpyrifos-methyl | 5598-13-0 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Malathion | 121-75-5 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Fenthion | 55-38-9 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Chlorpyrifos | 2921-88-2 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Pirimphos-ethyl | 23505-41-1 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Chlorfenvinphos | 470-90-6 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Bromophos-ethyl | 4824-78-6 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Fenamiphos | 22224-92-6 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Prothiofos | 34643-46-4 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Ethion | 563-12-2 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Carbophenothion | 786-19-6 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Azinphos Methyl | 86-50-0 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Monocrotophos | 6923-22-4 | 0.2 | mg/kg | <0.2 | <0.2 | 0.0 | No Limit |
| | | EP068: Parathion-methyl | 298-00-0 | 0.2 | mg/kg | <0.2 | <0.2 | 0.0 | No Limit |
| | | EP068: Parathion | 56-38-2 | 0.2 | mg/kg | <0.2 | <0.2 | 0.0 | No Limit |
| ES2219426-001 | QA1A | EP068: Dichlorvos | 62-73-7 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Demeton-S-methyl | 919-86-8 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Dimethoate | 60-51-5 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Diazinon | 333-41-5 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Chlorpyrifos-methyl | 5598-13-0 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Malathion | 121-75-5 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Fenthion | 55-38-9 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Chlorpyrifos | 2921-88-2 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Pirimphos-ethyl | 23505-41-1 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Chlorfenvinphos | 470-90-6 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Bromophos-ethyl | 4824-78-6 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Fenamiphos | 22224-92-6 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Prothiofos | 34643-46-4 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Ethion | 563-12-2 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Carbophenothion | 786-19-6 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Azinphos Methyl | 86-50-0 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP068: Monocrotophos | 6923-22-4 | 0.2 | mg/kg | <0.2 | <0.2 | 0.0 | No Limit |
| | | EP068: Parathion-methyl | 298-00-0 | 0.2 | mg/kg | <0.2 | <0.2 | 0.0 | No Limit |

Sub-Matrix: **SOIL**

| | | | | Laboratory Duplicate (DUP) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Sample ID* | *Method: Compound* | *CAS Number* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD (%)* | *Acceptable RPD (%)* |
| **EP068B: Organophosphorus Pesticides (OP) (QC Lot: 4379953) - continued** | | | | | | | | | |
| ES2219426-001 | QA1A | EP068: Parathion | 56-38-2 | 0.2 | mg/kg | <0.2 | <0.2 | 0.0 | No Limit |
| **EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4379952)** | | | | | | | | | |
| ES2219062-045 | Anonymous | EP075(SIM): Naphthalene | 91-20-3 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075(SIM): Acenaphthylene | 208-96-8 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075(SIM): Acenaphthene | 83-32-9 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075(SIM): Fluorene | 86-73-7 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075(SIM): Phenanthrene | 85-01-8 | 0.5 | mg/kg | 0.8 | 0.8 | 0.0 | No Limit |
| | | EP075(SIM): Anthracene | 120-12-7 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075(SIM): Fluoranthene | 206-44-0 | 0.5 | mg/kg | 1.8 | 1.9 | 0.0 | No Limit |
| | | EP075(SIM): Pyrene | 129-00-0 | 0.5 | mg/kg | 1.8 | 1.8 | 0.0 | No Limit |
| | | EP075(SIM): Benz(a)anthracene | 56-55-3 | 0.5 | mg/kg | 0.9 | 1.0 | 12.9 | No Limit |
| | | EP075(SIM): Chrysene | 218-01-9 | 0.5 | mg/kg | 1.0 | 1.0 | 0.0 | No Limit |
| | | EP075(SIM): Benzo(b+j)fluoranthene | 205-99-2<br>205-82-3 | 0.5 | mg/kg | 1.2 | 1.4 | 12.8 | No Limit |
| | | EP075(SIM): Benzo(k)fluoranthene | 207-08-9 | 0.5 | mg/kg | <0.5 | 0.5 | 0.0 | No Limit |
| | | EP075(SIM): Benzo(a)pyrene | 50-32-8 | 0.5 | mg/kg | 1.0 | 1.1 | 0.0 | No Limit |
| | | EP075(SIM): Indeno(1.2.3.cd)pyrene | 193-39-5 | 0.5 | mg/kg | 0.5 | 0.6 | 0.0 | No Limit |
| | | EP075(SIM): Dibenz(a.h)anthracene | 53-70-3 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075(SIM): Benzo(g.h.i)perylene | 191-24-2 | 0.5 | mg/kg | 0.5 | 0.6 | 0.0 | No Limit |
| | | EP075(SIM): Sum of polycyclic aromatic hydrocarbons | ---- | 0.5 | mg/kg | 9.5 | 10.7 | 11.9 | 0% - 20% |
| | | EP075(SIM): Benzo(a)pyrene TEQ (zero) | ---- | 0.5 | mg/kg | 1.3 | 1.5 | 13.9 | No Limit |
| ES2219426-001 | QA1A | EP075(SIM): Naphthalene | 91-20-3 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075(SIM): Acenaphthylene | 208-96-8 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075(SIM): Acenaphthene | 83-32-9 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075(SIM): Fluorene | 86-73-7 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075(SIM): Phenanthrene | 85-01-8 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075(SIM): Anthracene | 120-12-7 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075(SIM): Fluoranthene | 206-44-0 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075(SIM): Pyrene | 129-00-0 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075(SIM): Benz(a)anthracene | 56-55-3 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075(SIM): Chrysene | 218-01-9 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075(SIM): Benzo(b+j)fluoranthene | 205-99-2<br>205-82-3 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075(SIM): Benzo(k)fluoranthene | 207-08-9 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075(SIM): Benzo(a)pyrene | 50-32-8 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075(SIM): Indeno(1.2.3.cd)pyrene | 193-39-5 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075(SIM): Dibenz(a.h)anthracene | 53-70-3 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075(SIM): Benzo(g.h.i)perylene | 191-24-2 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |

Sub-Matrix: **SOIL**

| | | | | Laboratory Duplicate (DUP) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| *Laboratory sample ID* | *Sample ID* | *Method: Compound* | *CAS Number* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD (%)* | *Acceptable RPD (%)* |
| **EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4379952) - continued** | | | | | | | | | |
| ES2219426-001 | QA1A | EP075(SIM): Sum of polycyclic aromatic hydrocarbons | ---- | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075(SIM): Benzo(a)pyrene TEQ (zero) | ---- | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| **EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4379951)** | | | | | | | | | |
| ES2219062-045 | Anonymous | EP071: C15 - C28 Fraction | ---- | 100 | mg/kg | <100 | <100 | 0.0 | No Limit |
| | | EP071: C29 - C36 Fraction | ---- | 100 | mg/kg | <100 | <100 | 0.0 | No Limit |
| | | EP071: C10 - C14 Fraction | ---- | 50 | mg/kg | <50 | <50 | 0.0 | No Limit |
| ES2219426-001 | QA1A | EP071: C15 - C28 Fraction | ---- | 100 | mg/kg | <100 | <100 | 0.0 | No Limit |
| | | EP071: C29 - C36 Fraction | ---- | 100 | mg/kg | <100 | <100 | 0.0 | No Limit |
| | | EP071: C10 - C14 Fraction | ---- | 50 | mg/kg | <50 | <50 | 0.0 | No Limit |
| **EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4380722)** | | | | | | | | | |
| ES2212941-001 | Anonymous | EP080: C6 - C9 Fraction | ---- | 10 | mg/kg | <10 | <10 | 0.0 | No Limit |
| ES2219338-002 | Anonymous | EP080: C6 - C9 Fraction | ---- | 10 | mg/kg | <10 | <10 | 0.0 | No Limit |
| **EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4379951)** | | | | | | | | | |
| ES2219062-045 | Anonymous | EP071: >C16 - C34 Fraction | ---- | 100 | mg/kg | 140 | 130 | 13.8 | No Limit |
| | | EP071: >C34 - C40 Fraction | ---- | 100 | mg/kg | <100 | <100 | 0.0 | No Limit |
| | | EP071: >C10 - C16 Fraction | ---- | 50 | mg/kg | <50 | <50 | 0.0 | No Limit |
| ES2219426-001 | QA1A | EP071: >C16 - C34 Fraction | ---- | 100 | mg/kg | <100 | <100 | 0.0 | No Limit |
| | | EP071: >C34 - C40 Fraction | ---- | 100 | mg/kg | <100 | <100 | 0.0 | No Limit |
| | | EP071: >C10 - C16 Fraction | ---- | 50 | mg/kg | <50 | <50 | 0.0 | No Limit |
| **EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4380722)** | | | | | | | | | |
| ES2212941-001 | Anonymous | EP080: C6 - C10 Fraction | C6_C10 | 10 | mg/kg | <10 | <10 | 0.0 | No Limit |
| ES2219338-002 | Anonymous | EP080: C6 - C10 Fraction | C6_C10 | 10 | mg/kg | <10 | <10 | 0.0 | No Limit |
| **EP080: BTEXN (QC Lot: 4380722)** | | | | | | | | | |
| ES2212941-001 | Anonymous | EP080: Benzene | 71-43-2 | 0.2 | mg/kg | <0.2 | <0.2 | 0.0 | No Limit |
| | | EP080: Toluene | 108-88-3 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP080: Ethylbenzene | 100-41-4 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP080: meta- & para-Xylene | 108-38-3<br>106-42-3 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP080: ortho-Xylene | 95-47-6 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP080: Naphthalene | 91-20-3 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| ES2219338-002 | Anonymous | EP080: Benzene | 71-43-2 | 0.2 | mg/kg | <0.2 | <0.2 | 0.0 | No Limit |
| | | EP080: Toluene | 108-88-3 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP080: Ethylbenzene | 100-41-4 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP080: meta- & para-Xylene | 108-38-3<br>106-42-3 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP080: ortho-Xylene | 95-47-6 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP080: Naphthalene | 91-20-3 | 1 | mg/kg | <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: **SOIL**

| | | | | Method Blank (MB) Report | Laboratory Control Spike (LCS) Report | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Spike Recovery (%) | Acceptable Limits (%) | |
| Method: Compound | CAS Number | LOR | Unit | Result | Concentration | LCS | Low | High |
| **EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4386828)** | | | | | | | | |
| EG005T: Arsenic | 7440-38-2 | 5 | mg/kg | <5 | 121.1 mg/kg | 97.6 | 88.0 | 113 |
| EG005T: Cadmium | 7440-43-9 | 1 | mg/kg | <1 | 0.74 mg/kg | 83.5 | 70.0 | 130 |
| EG005T: Chromium | 7440-47-3 | 2 | mg/kg | <2 | 19.6 mg/kg | 105 | 68.0 | 132 |
| EG005T: Copper | 7440-50-8 | 5 | mg/kg | <5 | 52.9 mg/kg | 111 | 89.0 | 111 |
| EG005T: Lead | 7439-92-1 | 5 | mg/kg | <5 | 60.8 mg/kg | 104 | 82.0 | 119 |
| EG005T: Nickel | 7440-02-0 | 2 | mg/kg | <2 | 15.3 mg/kg | 98.8 | 80.0 | 120 |
| EG005T: Zinc | 7440-66-6 | 5 | mg/kg | <5 | 139.3 mg/kg | 91.0 | 66.0 | 133 |
| **EG035T: Total Recoverable Mercury by FIMS (QCLot: 4386827)** | | | | | | | | |
| EG035T: Mercury | 7439-97-6 | 0.1 | mg/kg | <0.1 | 0.087 mg/kg | 91.4 | 70.0 | 125 |
| **EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4379950)** | | | | | | | | |
| EP066: Total Polychlorinated biphenyls | ---- | 0.1 | mg/kg | <0.1 | 1 mg/kg | 74.2 | 62.0 | 126 |
| **EP068A: Organochlorine Pesticides (OC) (QCLot: 4379953)** | | | | | | | | |
| EP068: alpha-BHC | 319-84-6 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 102 | 69.0 | 113 |
| EP068: Hexachlorobenzene (HCB) | 118-74-1 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 93.8 | 65.0 | 117 |
| EP068: beta-BHC | 319-85-7 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 91.8 | 67.0 | 119 |
| EP068: gamma-BHC | 58-89-9 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 95.8 | 68.0 | 116 |
| EP068: delta-BHC | 319-86-8 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 91.5 | 65.0 | 117 |
| EP068: Heptachlor | 76-44-8 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 86.5 | 67.0 | 115 |
| EP068: Aldrin | 309-00-2 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 91.7 | 69.0 | 115 |
| EP068: Heptachlor epoxide | 1024-57-3 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 97.8 | 62.0 | 118 |
| EP068: trans-Chlordane | 5103-74-2 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 98.0 | 63.0 | 117 |
| EP068: alpha-Endosulfan | 959-98-8 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 98.0 | 66.0 | 116 |
| EP068: cis-Chlordane | 5103-71-9 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 95.0 | 64.0 | 116 |
| EP068: Dieldrin | 60-57-1 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 96.1 | 66.0 | 116 |
| EP068: 4.4`-DDE | 72-55-9 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 95.3 | 67.0 | 115 |
| EP068: Endrin | 72-20-8 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 85.6 | 67.0 | 123 |
| EP068: beta-Endosulfan | 33213-65-9 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 102 | 69.0 | 115 |
| EP068: 4.4`-DDD | 72-54-8 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 94.8 | 69.0 | 121 |
| EP068: Endrin aldehyde | 7421-93-4 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 101 | 56.0 | 120 |
| EP068: Endosulfan sulfate | 1031-07-8 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 99.6 | 62.0 | 124 |
| EP068: 4.4`-DDT | 50-29-3 | 0.2 | mg/kg | <0.2 | 0.5 mg/kg | 76.8 | 66.0 | 120 |
| EP068: Endrin ketone | 53494-70-5 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 96.2 | 64.0 | 122 |
| EP068: Methoxychlor | 72-43-5 | 0.2 | mg/kg | <0.2 | 0.5 mg/kg | 79.6 | 54.0 | 130 |
| **EP068B: Organophosphorus Pesticides (OP) (QCLot: 4379953)** | | | | | | | | |

Sub-Matrix: **SOIL**

| Method: Compound | CAS Number | LOR | Unit | Method Blank (MB) Report | Laboratory Control Spike (LCS) Report | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Spike | Spike Recovery (%) | Acceptable Limits (%) | |
| | | | | Result | Concentration | LCS | Low | High |
| **EP068B: Organophosphorus Pesticides (OP) (QCLot: 4379953) - continued** | | | | | | | | |
| EP068: Dichlorvos | 62-73-7 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 101 | 59.0 | 119 |
| EP068: Demeton-S-methyl | 919-86-8 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 99.0 | 62.0 | 128 |
| EP068: Monocrotophos | 6923-22-4 | 0.2 | mg/kg | <0.2 | 0.5 mg/kg | 76.1 | 54.0 | 126 |
| EP068: Dimethoate | 60-51-5 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 101 | 67.0 | 119 |
| EP068: Diazinon | 333-41-5 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 91.4 | 70.0 | 120 |
| EP068: Chlorpyrifos-methyl | 5598-13-0 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 86.2 | 72.0 | 120 |
| EP068: Parathion-methyl | 298-00-0 | 0.2 | mg/kg | <0.2 | 0.5 mg/kg | 84.5 | 68.0 | 120 |
| EP068: Malathion | 121-75-5 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 74.9 | 68.0 | 122 |
| EP068: Fenthion | 55-38-9 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 90.1 | 69.0 | 117 |
| EP068: Chlorpyrifos | 2921-88-2 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 97.7 | 76.0 | 118 |
| EP068: Parathion | 56-38-2 | 0.2 | mg/kg | <0.2 | 0.5 mg/kg | 89.6 | 64.0 | 122 |
| EP068: Pirimphos-ethyl | 23505-41-1 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 92.8 | 70.0 | 116 |
| EP068: Chlorfenvinphos | 470-90-6 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 79.8 | 69.0 | 121 |
| EP068: Bromophos-ethyl | 4824-78-6 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 93.1 | 66.0 | 118 |
| EP068: Fenamiphos | 22224-92-6 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 91.0 | 68.0 | 124 |
| EP068: Prothiofos | 34643-46-4 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 93.2 | 62.0 | 112 |
| EP068: Ethion | 563-12-2 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 90.6 | 68.0 | 120 |
| EP068: Carbophenothion | 786-19-6 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 97.6 | 65.0 | 127 |
| EP068: Azinphos Methyl | 86-50-0 | 0.05 | mg/kg | <0.05 | 0.5 mg/kg | 65.0 | 41.0 | 123 |
| **EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 4379952)** | | | | | | | | |
| EP075(SIM): Naphthalene | 91-20-3 | 0.5 | mg/kg | <0.5 | 6 mg/kg | 113 | 77.0 | 125 |
| EP075(SIM): Acenaphthylene | 208-96-8 | 0.5 | mg/kg | <0.5 | 6 mg/kg | 109 | 72.0 | 124 |
| EP075(SIM): Acenaphthene | 83-32-9 | 0.5 | mg/kg | <0.5 | 6 mg/kg | 105 | 73.0 | 127 |
| EP075(SIM): Fluorene | 86-73-7 | 0.5 | mg/kg | <0.5 | 6 mg/kg | 109 | 72.0 | 126 |
| EP075(SIM): Phenanthrene | 85-01-8 | 0.5 | mg/kg | <0.5 | 6 mg/kg | 111 | 75.0 | 127 |
| EP075(SIM): Anthracene | 120-12-7 | 0.5 | mg/kg | <0.5 | 6 mg/kg | 98.6 | 77.0 | 127 |
| EP075(SIM): Fluoranthene | 206-44-0 | 0.5 | mg/kg | <0.5 | 6 mg/kg | 113 | 73.0 | 127 |
| EP075(SIM): Pyrene | 129-00-0 | 0.5 | mg/kg | <0.5 | 6 mg/kg | 111 | 74.0 | 128 |
| EP075(SIM): Benz(a)anthracene | 56-55-3 | 0.5 | mg/kg | <0.5 | 6 mg/kg | 102 | 69.0 | 123 |
| EP075(SIM): Chrysene | 218-01-9 | 0.5 | mg/kg | <0.5 | 6 mg/kg | 112 | 75.0 | 127 |
| EP075(SIM): Benzo(b+j)fluoranthene | 205-99-2<br>205-82-3 | 0.5 | mg/kg | <0.5 | 6 mg/kg | 98.5 | 68.0 | 116 |
| EP075(SIM): Benzo(k)fluoranthene | 207-08-9 | 0.5 | mg/kg | <0.5 | 6 mg/kg | 112 | 74.0 | 126 |
| EP075(SIM): Benzo(a)pyrene | 50-32-8 | 0.5 | mg/kg | <0.5 | 6 mg/kg | 109 | 70.0 | 126 |
| EP075(SIM): Indeno(1.2.3.cd)pyrene | 193-39-5 | 0.5 | mg/kg | <0.5 | 6 mg/kg | 106 | 61.0 | 121 |
| EP075(SIM): Dibenz(a.h)anthracene | 53-70-3 | 0.5 | mg/kg | <0.5 | 6 mg/kg | 105 | 62.0 | 118 |
| EP075(SIM): Benzo(g.h.i)perylene | 191-24-2 | 0.5 | mg/kg | <0.5 | 6 mg/kg | 103 | 63.0 | 121 |
| **EP080/071: Total Petroleum Hydrocarbons (QCLot: 4379951)** | | | | | | | | |
| EP071: C10 - C14 Fraction | ---- | 50 | mg/kg | <50 | 300 mg/kg | 86.1 | 75.0 | 129 |

Sub-Matrix: **SOIL**

| Method: Compound | CAS Number | LOR | Unit | Method Blank (MB) Report: Result | Laboratory Control Spike (LCS) Report: Spike Concentration | Spike Recovery (%): LCS | Acceptable Limits (%): Low | Acceptable Limits (%): High |
|---|---|---|---|---|---|---|---|---|
| **EP080/071: Total Petroleum Hydrocarbons (QCLot: 4379951) - continued** | | | | | | | | |
| EP071: C15 - C28 Fraction | ---- | 100 | mg/kg | <100 | 450 mg/kg | 93.5 | 77.0 | 131 |
| EP071: C29 - C36 Fraction | ---- | 100 | mg/kg | <100 | 300 mg/kg | 96.0 | 71.0 | 129 |
| **EP080/071: Total Petroleum Hydrocarbons (QCLot: 4380722)** | | | | | | | | |
| EP080: C6 - C9 Fraction | ---- | 10 | mg/kg | <10 | 26 mg/kg | 87.5 | 68.4 | 128 |
| **EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4379951)** | | | | | | | | |
| EP071: >C10 - C16 Fraction | ---- | 50 | mg/kg | <50 | 375 mg/kg | 91.4 | 77.0 | 125 |
| EP071: >C16 - C34 Fraction | ---- | 100 | mg/kg | <100 | 525 mg/kg | 93.4 | 74.0 | 138 |
| EP071: >C34 - C40 Fraction | ---- | 100 | mg/kg | <100 | 225 mg/kg | 100 | 63.0 | 131 |
| **EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4380722)** | | | | | | | | |
| EP080: C6 - C10 Fraction | C6_C10 | 10 | mg/kg | <10 | 31 mg/kg | 88.9 | 68.4 | 128 |
| **EP080: BTEXN (QCLot: 4380722)** | | | | | | | | |
| EP080: Benzene | 71-43-2 | 0.2 | mg/kg | <0.2 | 1 mg/kg | 96.8 | 62.0 | 116 |
| EP080: Toluene | 108-88-3 | 0.5 | mg/kg | <0.5 | 1 mg/kg | 95.2 | 67.0 | 121 |
| EP080: Ethylbenzene | 100-41-4 | 0.5 | mg/kg | <0.5 | 1 mg/kg | 89.0 | 65.0 | 117 |
| EP080: meta- & para-Xylene | 108-38-3<br>106-42-3 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 96.1 | 66.0 | 118 |
| EP080: ortho-Xylene | 95-47-6 | 0.5 | mg/kg | <0.5 | 1 mg/kg | 96.5 | 68.0 | 120 |
| EP080: Naphthalene | 91-20-3 | 1 | mg/kg | <1 | 1 mg/kg | 88.6 | 63.0 | 119 |

## 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: **SOIL**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Matrix Spike (MS) Report: Spike Concentration | SpikeRecovery(%): MS | Acceptable Limits (%): Low | Acceptable Limits (%): High |
|---|---|---|---|---|---|---|---|
| **EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4386828)** | | | | | | | |
| ES2219367-017 | Anonymous | EG005T: Arsenic | 7440-38-2 | 50 mg/kg | 94.1 | 70.0 | 130 |
| | | EG005T: Cadmium | 7440-43-9 | 50 mg/kg | 97.6 | 70.0 | 130 |
| | | EG005T: Chromium | 7440-47-3 | 50 mg/kg | 87.1 | 68.0 | 132 |
| | | EG005T: Copper | 7440-50-8 | 250 mg/kg | 103 | 70.0 | 130 |
| | | EG005T: Lead | 7439-92-1 | 250 mg/kg | 98.2 | 70.0 | 130 |
| | | EG005T: Nickel | 7440-02-0 | 50 mg/kg | 96.8 | 70.0 | 130 |
| | | EG005T: Zinc | 7440-66-6 | 250 mg/kg | 94.7 | 66.0 | 133 |
| **EG035T: Total Recoverable Mercury by FIMS (QCLot: 4386827)** | | | | | | | |
| ES2219367-017 | Anonymous | EG035T: Mercury | 7439-97-6 | 5 mg/kg | 94.0 | 70.0 | 130 |
| **EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4379950)** | | | | | | | |

Sub-Matrix: **SOIL**

| | | | | Matrix Spike (MS) Report | | | |
|---|---|---|---|---|---|---|---|
| | | | | Spike | SpikeRecovery(%) | Acceptable Limits (%) | |
| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Concentration | MS | Low | High |
| **EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4379950) - continued** | | | | | | | |
| ES2219062-045 | Anonymous | EP066: Total Polychlorinated biphenyls | ---- | 1 mg/kg | 83.1 | 70.0 | 130 |
| **EP068A: Organochlorine Pesticides (OC) (QCLot: 4379953)** | | | | | | | |
| ES2219062-045 | Anonymous | EP068: gamma-BHC | 58-89-9 | 0.5 mg/kg | 90.1 | 70.0 | 130 |
| | | EP068: Heptachlor | 76-44-8 | 0.5 mg/kg | 88.9 | 70.0 | 130 |
| | | EP068: Aldrin | 309-00-2 | 0.5 mg/kg | 80.9 | 70.0 | 130 |
| | | EP068: Dieldrin | 60-57-1 | 0.5 mg/kg | 102 | 70.0 | 130 |
| | | EP068: Endrin | 72-20-8 | 2 mg/kg | 94.1 | 70.0 | 130 |
| | | EP068: 4.4`-DDT | 50-29-3 | 2 mg/kg | 113 | 70.0 | 130 |
| **EP068B: Organophosphorus Pesticides (OP) (QCLot: 4379953)** | | | | | | | |
| ES2219062-045 | Anonymous | EP068: Diazinon | 333-41-5 | 0.5 mg/kg | 88.1 | 70.0 | 130 |
| | | EP068: Chlorpyrifos-methyl | 5598-13-0 | 0.5 mg/kg | 89.3 | 70.0 | 130 |
| | | EP068: Pirimphos-ethyl | 23505-41-1 | 0.5 mg/kg | 87.3 | 70.0 | 130 |
| | | EP068: Bromophos-ethyl | 4824-78-6 | 0.5 mg/kg | 88.7 | 70.0 | 130 |
| | | EP068: Prothiofos | 34643-46-4 | 0.5 mg/kg | 86.5 | 70.0 | 130 |
| **EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 4379952)** | | | | | | | |
| ES2219062-045 | Anonymous | EP075(SIM): Acenaphthene | 83-32-9 | 10 mg/kg | 96.3 | 70.0 | 130 |
| | | EP075(SIM): Pyrene | 129-00-0 | 10 mg/kg | 95.4 | 70.0 | 130 |
| **EP080/071: Total Petroleum Hydrocarbons (QCLot: 4379951)** | | | | | | | |
| ES2219062-045 | Anonymous | EP071: C10 - C14 Fraction | ---- | 480 mg/kg | 99.8 | 73.0 | 137 |
| | | EP071: C15 - C28 Fraction | ---- | 3100 mg/kg | 100 | 53.0 | 131 |
| | | EP071: C29 - C36 Fraction | ---- | 2060 mg/kg | 108 | 52.0 | 132 |
| **EP080/071: Total Petroleum Hydrocarbons (QCLot: 4380722)** | | | | | | | |
| ES2212941-001 | Anonymous | EP080: C6 - C9 Fraction | ---- | 32.5 mg/kg | 90.5 | 70.0 | 130 |
| **EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4379951)** | | | | | | | |
| ES2219062-045 | Anonymous | EP071: >C10 - C16 Fraction | ---- | 860 mg/kg | 85.7 | 73.0 | 137 |
| | | EP071: >C16 - C34 Fraction | ---- | 4320 mg/kg | 104 | 53.0 | 131 |
| | | EP071: >C34 - C40 Fraction | ---- | 890 mg/kg | 108 | 52.0 | 132 |
| **EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4380722)** | | | | | | | |
| ES2212941-001 | Anonymous | EP080: C6 - C10 Fraction | C6_C10 | 37.5 mg/kg | 98.9 | 70.0 | 130 |
| **EP080: BTEXN (QCLot: 4380722)** | | | | | | | |
| ES2212941-001 | Anonymous | EP080: Benzene | 71-43-2 | 2.5 mg/kg | 98.7 | 70.0 | 130 |
| | | EP080: Toluene | 108-88-3 | 2.5 mg/kg | 97.5 | 70.0 | 130 |
| | | EP080: Ethylbenzene | 100-41-4 | 2.5 mg/kg | 99.4 | 70.0 | 130 |
| | | EP080: meta- & para-Xylene | 108-38-3<br>106-42-3 | 2.5 mg/kg | 101 | 70.0 | 130 |
| | | EP080: ortho-Xylene | 95-47-6 | 2.5 mg/kg | 101 | 70.0 | 130 |

Sub-Matrix: **SOIL**

| | | | | Matrix Spike (MS) Report | | | |
|---|---|---|---|---|---|---|---|
| | | | | Spike | SpikeRecovery(%) | Acceptable Limits (%) | |
| *Laboratory sample ID* | *Sample ID* | *Method: Compound* | *CAS Number* | *Concentration* | *MS* | *Low* | *High* |
| **EP080: BTEXN (QCLot: 4380722) - continued** | | | | | | | |
| ES2212941-001 | Anonymous | EP080: Naphthalene | 91-20-3 | 2.5 mg/kg | 98.7 | 70.0 | 130 |

ALS Environmental

# QA/QC Compliance Assessment to assist with Quality Review

| | | | |
|---|---|---|---|
| **Work Order** | : **ES2219426** | Page | : 1 of 5 |
| Client | : **TETRA TECH COFFEY PTY LTD** | Laboratory | : Environmental Division Sydney |
| Contact | : MR MATTHEW LOCKE | Telephone | : +6138549 9609 |
| Project | : SYDGE295047 Dragons | Date Samples Received | : 02-Jun-2022 |
| Site | : | Issue Date | : 09-Jun-2022 |
| Sampler | : Wendy Cadelago | No. of samples received | : 1 |
| Order number | : SYDGE295047 | No. of samples analysed | : 1 |

**This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.**

Brief method summaries and references are also provided to assist in traceability.

## *Summary of Outliers*

### *Outliers : Quality Control Samples*

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

### *Outliers : Analysis Holding Time Compliance*

- **NO Analysis Holding Time Outliers exist.**

### *Outliers : Frequency of Quality Control Samples*

- **NO Quality Control Sample Frequency Outliers exist.**

# Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

| Method / Container / Client Sample ID(s) | Sample Date | Extraction / Preparation | | | Analysis | | |
|---|---|---|---|---|---|---|---|
| | | Date extracted | Due for extraction | Evaluation | Date analysed | Due for analysis | Evaluation |
| **EA055: Moisture Content (Dried @ 105-110°C)** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EA055)** | | | | | | | |
| QA1A | **27-May-2022** | **----** | ---- | ---- | **08-Jun-2022** | 10-Jun-2022 | ✓ |
| **EG005(ED093)T: Total Metals by ICP-AES** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EG005T)** | | | | | | | |
| QA1A | **27-May-2022** | **08-Jun-2022** | 23-Nov-2022 | ✓ | **09-Jun-2022** | 23-Nov-2022 | ✓ |
| **EG035T: Total Recoverable Mercury by FIMS** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EG035T)** | | | | | | | |
| QA1A | **27-May-2022** | **08-Jun-2022** | 24-Jun-2022 | ✓ | **09-Jun-2022** | 24-Jun-2022 | ✓ |
| **EP066: Polychlorinated Biphenyls (PCB)** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP066)** | | | | | | | |
| QA1A | **27-May-2022** | **06-Jun-2022** | 10-Jun-2022 | ✓ | **08-Jun-2022** | 16-Jul-2022 | ✓ |
| **EP068A: Organochlorine Pesticides (OC)** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP068)** | | | | | | | |
| QA1A | **27-May-2022** | **06-Jun-2022** | 10-Jun-2022 | ✓ | **08-Jun-2022** | 16-Jul-2022 | ✓ |
| **EP068B: Organophosphorus Pesticides (OP)** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP068)** | | | | | | | |
| QA1A | **27-May-2022** | **06-Jun-2022** | 10-Jun-2022 | ✓ | **08-Jun-2022** | 16-Jul-2022 | ✓ |
| **EP075(SIM)B: Polynuclear Aromatic Hydrocarbons** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP075(SIM))** | | | | | | | |
| QA1A | **27-May-2022** | **06-Jun-2022** | 10-Jun-2022 | ✓ | **08-Jun-2022** | 16-Jul-2022 | ✓ |
| **EP080/071: Total Petroleum Hydrocarbons** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP071)** | | | | | | | |
| QA1A | **27-May-2022** | **06-Jun-2022** | 10-Jun-2022 | ✓ | **08-Jun-2022** | 16-Jul-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP080)** | | | | | | | |
| QA1A | **27-May-2022** | **08-Jun-2022** | 10-Jun-2022 | ✓ | **08-Jun-2022** | 10-Jun-2022 | ✓ |
| **EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP071)** | | | | | | | |
| QA1A | **27-May-2022** | **06-Jun-2022** | 10-Jun-2022 | ✓ | **08-Jun-2022** | 16-Jul-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP080)** | | | | | | | |
| QA1A | **27-May-2022** | **08-Jun-2022** | 10-Jun-2022 | ✓ | **08-Jun-2022** | 10-Jun-2022 | ✓ |

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

| Method / Container / Client Sample ID(s) | Sample Date | Extraction / Preparation | | | Analysis | | |
|---|---|---|---|---|---|---|---|
| | | Date extracted | Due for extraction | Evaluation | Date analysed | Due for analysis | Evaluation |
| **EP080: BTEXN** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP080)** | | | | | | | |
| QA1A | **27-May-2022** | **08-Jun-2022** | 10-Jun-2022 | ✓ | **08-Jun-2022** | 10-Jun-2022 | ✓ |

# Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

| Quality Control Sample Type | | Count | | Rate (%) | | | Quality Control Specification |
|---|---|---|---|---|---|---|---|
| *Analytical Methods* | *Method* | *QC* | *Regular* | ***Actual*** | ***Expected*** | *Evaluation* | |
| **Laboratory Duplicates (DUP)** | | | | | | | |
| Moisture Content | EA055 | 2 | 16 | **12.50** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| PAH/Phenols (SIM) | EP075(SIM) | 2 | 19 | **10.53** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Pesticides by GCMS | EP068 | 2 | 12 | **16.67** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Polychlorinated Biphenyls (PCB) | EP066 | 2 | 11 | **18.18** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Mercury by FIMS | EG035T | 2 | 14 | **14.29** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Metals by ICP-AES | EG005T | 2 | 14 | **14.29** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| TRH - Semivolatile Fraction | EP071 | 2 | 19 | **10.53** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| TRH Volatiles/BTEX | EP080 | 2 | 17 | **11.76** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| **Laboratory Control Samples (LCS)** | | | | | | | |
| PAH/Phenols (SIM) | EP075(SIM) | 1 | 19 | **5.26** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Pesticides by GCMS | EP068 | 1 | 12 | **8.33** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Polychlorinated Biphenyls (PCB) | EP066 | 1 | 11 | **9.09** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Mercury by FIMS | EG035T | 1 | 14 | **7.14** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Metals by ICP-AES | EG005T | 1 | 14 | **7.14** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| TRH - Semivolatile Fraction | EP071 | 1 | 19 | **5.26** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| TRH Volatiles/BTEX | EP080 | 1 | 17 | **5.88** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| **Method Blanks (MB)** | | | | | | | |
| PAH/Phenols (SIM) | EP075(SIM) | 1 | 19 | **5.26** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Pesticides by GCMS | EP068 | 1 | 12 | **8.33** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Polychlorinated Biphenyls (PCB) | EP066 | 1 | 11 | **9.09** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Mercury by FIMS | EG035T | 1 | 14 | **7.14** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Metals by ICP-AES | EG005T | 1 | 14 | **7.14** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| TRH - Semivolatile Fraction | EP071 | 1 | 19 | **5.26** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| TRH Volatiles/BTEX | EP080 | 1 | 17 | **5.88** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| **Matrix Spikes (MS)** | | | | | | | |
| PAH/Phenols (SIM) | EP075(SIM) | 1 | 19 | **5.26** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Pesticides by GCMS | EP068 | 1 | 12 | **8.33** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Polychlorinated Biphenyls (PCB) | EP066 | 1 | 11 | **9.09** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Mercury by FIMS | EG035T | 1 | 14 | **7.14** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Metals by ICP-AES | EG005T | 1 | 14 | **7.14** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| TRH - Semivolatile Fraction | EP071 | 1 | 19 | **5.26** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| TRH Volatiles/BTEX | EP080 | 1 | 17 | **5.88** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |

## Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

| Analytical Methods | Method | Matrix | Method Descriptions |
|---|---|---|---|
| Moisture Content | EA055 | SOIL | In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3). |
| Total Metals by ICP-AES | EG005T | SOIL | In house: Referenced to APHA 3120; USEPA SW 846 - 6010. Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM Schedule B(3) |
| Total Mercury by FIMS | EG035T | SOIL | In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl2) (Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3) |
| Polychlorinated Biphenyls (PCB) | EP066 | SOIL | In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3). |
| Pesticides by GCMS | EP068 | SOIL | In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM Schedule B(3). |
| TRH - Semivolatile Fraction | EP071 | SOIL | In house: Referenced to USEPA SW 846 - 8015 Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40. Compliant with NEPM Schedule B(3). |
| PAH/Phenols (SIM) | EP075(SIM) | SOIL | In house: Referenced to USEPA SW 846 - 8270. Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3) |
| TRH Volatiles/BTEX | EP080 | SOIL | In house: Referenced to USEPA SW 846 - 8260. Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. Compliant with NEPM Schedule B(3) amended. |

| Preparation Methods | Method | Matrix | Method Descriptions |
|---|---|---|---|
| Hot Block Digest for metals in soils sediments and sludges | EN69 | SOIL | In house: Referenced to USEPA 200.2. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM Schedule B(3). |
| Methanolic Extraction of Soils for Purge and Trap | ORG16 | SOIL | In house: Referenced to USEPA SW 846 - 5030A. 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS. |
| Tumbler Extraction of Solids | ORG17 | SOIL | In house: Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis. |

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST



TETRA TECH COFFEY

| | | | | | |
|---|---|---|---|---|---|
| Consigning Office: | Sydney | | | | |
| Report Results to: | Matthew Locke | Mobile: | +61427202493 | Email: | Matthew.Locke@tetratech.com |
| Invoices to: | | Phone: | | Email: | |

| | | | |
|---|---|---|---|
| Project No: | SYDGE295047 | Task No: | Fieldwork |
| Project Name: | Dragons | Laboratory: | Eurofins |
| Sampler's Name: | Wendy Cadelago | Project Manager: | Matthew Locke |
| Quote number (if different to current quoted prices): | | | |
| Special Instructions: | Please send QA1A to ALS for analysis. | | |

| Lab Batch Ref | Sample ID | Sample Date | Time | Matrix (Soil...etc) | Container Type & Preservative* | T-A-T (specify) | Suite M8 (Metals 8) | Suite B4 (TRH/PAH/BTEX) | Suite B15 (OCP/OPP/PCB) | ASS Screening (pH F / pH FOX) | SPOCAS | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | BH1015_1.0-1.1 | 26/5/22 | - | soil | jar, ASS bag | std | | | | | | |
| | QA1 | 27/5/22 | - | soil | jar, ASS bag | std | X | X | X | | | |
| | QA1A | 27/5/22 | - | soil | jar, ASS bag | std | X | X | X | | | Send to ALS |
| | QA2 | 27/5/22 | - | soil | jar, ASS bag | std | | | | | | |
| | QA2A | 27/5/22 | - | soil | jar, ASS bag | std | | | | | | |
| | RB260522 | 26/5/22 | - | water | | std | | | | | | |
| | RB270522 | 27/5/22 | - | water | | std | X | X | X | | | |
| | | | | | | | | | | | | |
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Analysis Request Section

Environmental Division
Sydney
Work Order Reference
ES2219426

Telephone : +61-2-8784 8555

| RELINQUISHED BY | | | | RECEIVED BY | | | |
|---|---|---|---|---|---|---|---|
| Name: | Wendy Cadelago | Date: | 27/5/22 | Name: | | Date: | 05/6/22 |
| Company: | Coffey | Time: | | Company: | | Time: | 18:55 |
| Name: | | Date: | → | Name: | | Date: | |
| Company: | | Time: | | Company: | | Time: | |

**Container Type & Preservation Codes:** P - Plastic, G- Glass Bottle, J - Glass Jar, V- Vial, Z - Ziplock bag, N - Nitric Acid Preserved, C - Hydrochloric Acid Preserved, S - Sulphuric Acid Preserved, I - Ice, ST - Sodium Thiosulfate, NP - *No Preservative*

**Sample Receipt Advice: (Lab Use Only)**

| | |
|---|---|
| All Samples Recieved in Good Condition | ☑ |
| All Documentation is in Proper Order | ☐ |
| Samples Received Properly Chilled | ☑ |
| Lab. Ref/Batch No. | |

# APPENDIX G: EQUIPMENT CALIBRATION RECORDS

airmet
Work with Confidence

# Calibration Certificate

AirMet Scientific P/L
Level 3, 18-26 Dickson Avenue
Artarmon
NSW 2064, Australia
Tel: 02 8425 8300
Fax: 02 8425 8399

*This document certifies that the instrument detailed has been calibrated to the parameters*

Certificate Print Date: 18-Feb-2022
Calibration Date: 18-Feb-2022
Next Calibration Due: 17-Aug-2022

Call ID / Order No: 254645
Job No / Pack No: S2546450001

Customer: Coffey Environments Pty Ltd-ID 203374
Description: MINIRAE2000
Serial No: 110-900230

## Calibration Summary

Frequency: 180 Days
Temp: 22°C
Humidity: 45%
As Found: In Tolerance
Certificate: S2546450001
Result: Pass

| Desc | As Found | | As Left (Cal Status) | |
|---|---|---|---|---|
| | Actual | Result | Actual | Result |
| PID ISOBUTYLENE 100ppm | 96.4 | Pass | 99.8 | Pass |

Standard Used

| Equip ID | Description | Valid Until | Cert |
|---|---|---|---|
| SY416 | 20.9% O2 | 01-03-2026 | 400296343 |
| SYFRESHAIR | Ambient Air | 29-08-2028 | |
| SY422 | Isobutylene 100PPM, Air Balance | 01-08-2026 | X02A199CP10C0Q3 |

Completed By: Jason Cheng

Signed:

# APPENDIX H: DATA VALIDATION ASSESSMENT

| | |
|---|---|
| **Were sample collection & handling measures appropriate?** | Sample collection was undertaken by an experienced Environmental Scientist, following Tetra Tech Standard Operating Procedures (SOP) that are based on relevant industry guidance. Samples were correctly labelled and stored, with analyses performed by National Association of Testing Authorities (NATA) accredited laboratories.<br>One rinsate blank sample was collected and analysed to assess for cross-contamination between collection of samples. |
| **Field QA/QC samples** | Field QA/QC samples included:<br>• BH105_0-0.1(primary)/QA1 (intra-laboratory duplicate).<br>• BH105_0-0.1 (primary)/QA1A (inter-laboratory triplicate).<br>• RB260522 (rinsate sample). |
| **Analysis of Relative Percentage Differences and Rinsate** | Relative Percentage Differences (RPDs) were calculated between the primary and intra/inter-laboratory samples. The RPD acceptable limit of 50% was adopted, as stated in the Australian Standards 4482.1-2005 *Guide to the Investigation and Sampling of Sites with Potentially Contaminated Soil- Non-volatile and Semi-volatile Compounds.*<br>No RPD exceedances occurred for the intra- and inter-laboratory duplicates.<br>Results from equipment rinsate sample analysis were reported to be below the LOR, indicating the decontamination procedure was undertaken adequately in between sampling locations. |
| **Were laboratory QA/QC results acceptable?** | Yes. The following quality control results were reported within acceptable limits:<br>• Method blanks.<br>• Laboratory control samples.<br>• Matrix spikes. |
| **Were field & laboratory data usable** | Based on the QA/ QC, Tetra Tech ascertains that the data acquired is representative and valid for the assessment, based on the field and laboratory quality assurance and quality control procedures and results attained. |

Table 3 - Soil RPDs
St George Illawarra CHPC
Detailed Site Investigation

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Field ID | | BH105_0-0.1 | QA1 | | BH105_0-0.1 | QA1A | |
| Date | | 5/26/2022 | 5/26/2022 | | 5/26/2022 | 5/27/2022 | |
| Lab Report Number | | 893864 | 893864 | | 893864 | ES2219426 | |
| Matrix Type | | Soil | Soil | RPD | Soil | Soil | RPD |
| | Unit | | | | | | |
| Metals | | | | | | | |
| Arsenic | mg/kg | 5.5 | 4.8 | 14 | 5.5 | 6 | 9 |
| Cadmium | mg/kg | 0.8 | <0.4 | 0 | 0.8 | <1 | 0 |
| Chromium (III+VI) | mg/kg | 17 | 19 | 11 | 17 | 19 | 11 |
| Copper | mg/kg | 18 | 21 | 15 | 18 | 26 | 36 |
| Lead | mg/kg | 31 | 39 | 23 | 31 | 40 | 25 |
| Mercury | mg/kg | <0.1 | <0.1 | 0 | <0.1 | <0.1 | 0 |
| Nickel | mg/kg | 15 | 16 | 6 | 15 | 15 | 0 |
| Zinc | mg/kg | 76 | 89 | 16 | 76 | 89 | 16 |
| BTEX | | | | | | | |
| Benzene | mg/kg | <0.1 | <0.1 | 0 | <0.1 | <0.2 | 0 |
| Toluene | mg/kg | <0.1 | <0.1 | 0 | <0.1 | <0.5 | 0 |
| Ethylbenzene | mg/kg | <0.1 | <0.1 | 0 | <0.1 | <0.5 | 0 |
| Xylene (o) | mg/kg | <0.1 | <0.1 | 0 | <0.1 | <0.5 | 0 |
| Xylene (m & p) | mg/kg | <0.2 | <0.2 | 0 | <0.2 | <0.5 | 0 |
| Xylene Total | mg/kg | <0.3 | <0.3 | 0 | <0.3 | <0.5 | 0 |
| Total Recoverable Hydrocarbons | | | | | | | |
| F1 (C6 - C10) | mg/kg | <20 | <20 | 0 | <20 | <10 | 0 |
| F1 (C6 - C10) less BTEX | mg/kg | <20 | <20 | 0 | <20 | <10 | 0 |
| F2 (C10 - C16) | mg/kg | <50 | <50 | 0 | <50 | <50 | 0 |
| F2 C10 - C16 (minus Naphthalene) | mg/kg | <50 | <50 | 0 | <50 | <50 | 0 |
| F3 (C16 - C34) | mg/kg | <100 | 120 | 18 | <100 | <100 | 0 |
| F4 (C34 - C40) | mg/kg | <100 | <100 | 0 | <100 | <100 | 0 |
| Polycyclic Aromatic Hydrocarbons | | | | | | | |
| Benzo(b+j)fluoranthene | mg/kg | <0.5 | <0.5 | 0 | <0.5 | <0.5 | 0 |
| Acenaphthene | mg/kg | <0.5 | <0.5 | 0 | <0.5 | <0.5 | 0 |
| Acenaphthylene | mg/kg | <0.5 | <0.5 | 0 | <0.5 | <0.5 | 0 |
| Anthracene | mg/kg | <0.5 | <0.5 | 0 | <0.5 | <0.5 | 0 |
| Benz(a)anthracene | mg/kg | <0.5 | <0.5 | 0 | <0.5 | <0.5 | 0 |
| Benzo(a) pyrene | mg/kg | <0.5 | <0.5 | 0 | <0.5 | <0.5 | 0 |
| Benzo(g,h,i)perylene | mg/kg | <0.5 | <0.5 | 0 | <0.5 | <0.5 | 0 |
| Benzo(k)fluoranthene | mg/kg | <0.5 | <0.5 | 0 | <0.5 | <0.5 | 0 |
| Chrysene | mg/kg | <0.5 | <0.5 | 0 | <0.5 | <0.5 | 0 |
| Dibenz(a,h)anthracene | mg/kg | <0.5 | <0.5 | 0 | <0.5 | <0.5 | 0 |
| Fluoranthene | mg/kg | <0.5 | <0.5 | 0 | <0.5 | <0.5 | 0 |
| Fluorene | mg/kg | <0.5 | <0.5 | 0 | <0.5 | <0.5 | 0 |
| Indeno(1,2,3-c,d)pyrene | mg/kg | <0.5 | <0.5 | 0 | <0.5 | <0.5 | 0 |
| Naphthalene | mg/kg | <0.5 | <0.5 | 0 | <0.5 | <0.5 | 0 |
| Phenanthrene | mg/kg | <0.5 | <0.5 | 0 | <0.5 | <0.5 | 0 |
| Pyrene | mg/kg | <0.5 | <0.5 | 0 | <0.5 | <0.5 | 0 |
| Organochlorine Pesticides | | | | | | | |
| 4,4-DDE | mg/kg | <0.05 | <0.05 | 0 | <0.05 | <0.05 | 0 |
| a-BHC | mg/kg | <0.05 | <0.05 | 0 | <0.05 | <0.05 | 0 |
| Aldrin | mg/kg | <0.05 | <0.05 | 0 | <0.05 | <0.05 | 0 |
| Aldrin + Dieldrin | mg/kg | <0.05 | <0.05 | 0 | <0.05 | <0.05 | 0 |
| b-BHC | mg/kg | <0.05 | <0.05 | 0 | <0.05 | <0.05 | 0 |
| chlordane | mg/kg | <0.1 | <0.1 | 0 | <0.1 | <0.05 | 0 |
| d-BHC | mg/kg | <0.05 | <0.05 | 0 | <0.05 | <0.05 | 0 |
| DDD | mg/kg | <0.05 | <0.05 | 0 | <0.05 | <0.05 | 0 |
| DDT | mg/kg | <0.05 | <0.05 | 0 | <0.05 | <0.2 | 0 |
| DDT+DDE+DDD | mg/kg | <0.05 | <0.05 | 0 | <0.05 | <0.05 | 0 |
| Dieldrin | mg/kg | <0.05 | <0.05 | 0 | <0.05 | <0.05 | 0 |
| Endosulfan | mg/kg | | | | | <0.05 | |
| Endrin aldehyde | mg/kg | <0.05 | <0.05 | 0 | <0.05 | <0.05 | 0 |
| Endrin ketone | mg/kg | <0.05 | <0.05 | 0 | <0.05 | <0.05 | 0 |
| Endosulfan I | mg/kg | <0.05 | <0.05 | 0 | <0.05 | <0.05 | 0 |
| Endosulfan II | mg/kg | <0.05 | <0.05 | 0 | <0.05 | <0.05 | 0 |
| Endosulfan sulphate | mg/kg | <0.05 | <0.05 | 0 | <0.05 | <0.05 | 0 |
| Endrin | mg/kg | <0.05 | <0.05 | 0 | <0.05 | <0.05 | 0 |
| g-BHC (Lindane) | mg/kg | <0.05 | <0.05 | 0 | <0.05 | <0.05 | 0 |
| Heptachlor | mg/kg | <0.05 | <0.05 | 0 | <0.05 | <0.05 | 0 |
| Heptachlor epoxide | mg/kg | <0.05 | <0.05 | 0 | <0.05 | <0.05 | 0 |
| Methoxychlor | mg/kg | <0.05 | <0.05 | 0 | <0.05 | <0.2 | 0 |
| Toxaphene | mg/kg | <0.5 | <0.5 | 0 | <0.5 | - | |
| Organophosphorous Pesticides | | | | | | | |
| Azinophos methyl | mg/kg | <0.2 | <0.2 | 0 | <0.2 | <0.05 | 0 |
| Bolstar (Sulprofos) | mg/kg | <0.2 | <0.2 | 0 | <0.2 | - | - |
| Chlorfenvinphos | mg/kg | <0.2 | <0.2 | 0 | <0.2 | <0.05 | 0 |
| Chlorpyrifos | mg/kg | <0.2 | <0.2 | 0 | <0.2 | <0.05 | 0 |
| Chlorpyrifos-methyl | mg/kg | <0.2 | <0.2 | 0 | <0.2 | <0.05 | 0 |
| Coumaphos | mg/kg | <2 | <2 | 0 | <2 | - | - |
| Demeton-O | mg/kg | <0.2 | <0.2 | 0 | <0.2 | - | - |
| Demeton-S | mg/kg | <0.2 | <0.2 | 0 | <0.2 | - | - |
| Diazinon | mg/kg | <0.2 | <0.2 | 0 | <0.2 | <0.05 | 0 |
| Dichlorvos | mg/kg | <0.2 | <0.2 | 0 | <0.2 | <0.05 | 0 |
| Disulfoton | mg/kg | <0.2 | <0.2 | 0 | <0.2 | - | - |
| Dimethoate | mg/kg | <0.2 | <0.2 | 0 | <0.2 | <0.05 | 0 |
| Ethoprop | mg/kg | <0.2 | <0.2 | 0 | <0.2 | | - |
| Ethion | mg/kg | <0.2 | <0.2 | 0 | <0.2 | <0.05 | 0 |
| Fenitrothion | mg/kg | <0.2 | <0.2 | 0 | <0.2 | - | - |
| Fensulfothion | mg/kg | <0.2 | <0.2 | 0 | <0.2 | - | - |
| Fenthion | mg/kg | <0.2 | <0.2 | 0 | <0.2 | <0.05 | 0 |
| EPN | mg/kg | <0.2 | <0.2 | 0 | <0.2 | - | - |
| Merphos | mg/kg | <0.2 | <0.2 | 0 | <0.2 | - | - |
| Malathion | mg/kg | <0.2 | <0.2 | 0 | <0.2 | <0.05 | 0 |
| Methyl parathion | mg/kg | <0.2 | <0.2 | 0 | <0.2 | <0.2 | 0 |
| Mevinphos (Phosdrin) | mg/kg | <0.2 | <0.2 | 0 | <0.2 | - | - |
| Monocrotophos | mg/kg | <2 | <2 | 0 | <2 | <0.2 | 0 |
| Naled (Dibrom) | mg/kg | <0.2 | <0.2 | 0 | <0.2 | - | - |
| Omethoate | mg/kg | <2 | <2 | 0 | <2 | - | - |
| Phorate | mg/kg | <0.2 | <0.2 | 0 | <0.2 | - | - |
| Pyrazophos | mg/kg | <0.2 | <0.2 | 0 | <0.2 | - | - |
| Ronnel | mg/kg | <0.2 | <0.2 | 0 | <0.2 | - | - |
| Terbufos | mg/kg | <0.2 | <0.2 | 0 | <0.2 | - | - |
| Trichloronate | mg/kg | <0.2 | <0.2 | 0 | <0.2 | - | - |
| Tetrachlorvinphos | mg/kg | <0.2 | <0.2 | 0 | <0.2 | - | - |
| PCBs | | | | | | | |
| Arochlor 1016 | mg/kg | <0.1 | <0.1 | 0 | <0.1 | - | - |
| Arochlor 1221 | mg/kg | <0.1 | <0.1 | 0 | <0.1 | - | - |
| Arochlor 1232 | mg/kg | <0.1 | <0.1 | 0 | <0.1 | - | - |

Table 3 - Soil RPDs
St George Illawarra CHPC
Detailed Site Investigation

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Field ID | BH105_0-0.1 | QA1 | | BH105_0-0.1 | QA1A | |
| | Date | 5/26/2022 | 5/26/2022 | | 5/26/2022 | 5/27/2022 | |
| | Lab Report Number | 893864 | 893864 | | 893864 | ES2219426 | |
| | Matrix Type | Soil | Soil | RPD | Soil | Soil | RPD |
| | Unit | | | | | | |
| Arochlor 1242 | mg/kg | <0.1 | <0.1 | 0 | <0.1 | - | - |
| Arochlor 1248 | mg/kg | <0.1 | <0.1 | 0 | <0.1 | - | - |
| Arochlor 1254 | mg/kg | <0.1 | <0.1 | 0 | <0.1 | - | - |
| Arochlor 1260 | mg/kg | <0.1 | <0.1 | 0 | <0.1 | - | - |
| Pesticides | | | | | | | |
| Demeton-S-methyl | mg/kg | - | - | - | - | <0.05 | - |
| Fenamiphos | mg/kg | - | - | - | - | <0.05 | - |
| Parathion | mg/kg | <0.2 | <0.2 | 0 | <0.2 | <0.2 | 0 |
| Pirimiphos-methyl | mg/kg | <0.2 | <0.2 | 0 | <0.2 | - | - |
| Pirimphos-ethyl | mg/kg | - | - | - | - | <0.05 | - |

*RPDs have only been considered where a concentration is greater than 1 times the EQL.
**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 ( > 30 x EQL) )
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory
- Not tested

TETRA TECH COFFEY

Table 4 - Rinsate Blank Results
St George Illawarra CHPC
Detailed Site Investigation



| | | |
|---|---|---|
| Field ID | | RB270522 |
| Date | | 5/26/2022 |
| Matrix Type | | Water |
| Metals | | |
| Arsenic | mg/L | <0.001 |
| Cadmium | mg/L | <0.0002 |
| Chromium (III+VI) | mg/L | <0.001 |
| Copper | mg/L | <0.001 |
| Lead | mg/L | <0.001 |
| Mercury | mg/L | <0.0001 |
| Nickel | mg/L | <0.001 |
| Zinc | mg/L | <0.005 |
| BTEX | | |
| Benzene | µg/L | <1 |
| Toluene | µg/L | <1 |
| Ethylbenzene | µg/L | <1 |
| Xylene (o) | µg/L | <1 |
| Xylene (m & p) | µg/L | <2 |
| Xylene Total | µg/L | <3 |
| Total Recoverable Hydrocarbons | | |
| F1 (C6 - C10) | mg/L | <0.02 |
| F1 (C6 - C10) less BTEX | mg/L | <0.02 |
| F2 (C10 - C16) | mg/L | <0.05 |
| F2 C10 - C16 (minus Naphthalene) | mg/L | <0.05 |
| F3 (C16 - C34) | mg/L | <0.1 |
| F4 (C34 - C40) | mg/L | <0.1 |
| C10 - C40 (Sum of total) | mg/L | <0.1 |
| Polycyclic Aromatic Hydrocarbons | | |
| Benzo(b+j)fluoranthene | mg/L | <0.001 |
| Acenaphthene | µg/L | <1 |
| Acenaphthylene | µg/L | <1 |
| Anthracene | µg/L | <1 |
| Benz(a)anthracene | µg/L | <1 |
| Benzo(a) pyrene | µg/L | <1 |
| Benzo(g,h,i)perylene | µg/L | <1 |
| Benzo(k)fluoranthene | µg/L | <1 |
| Chrysene | µg/L | <1 |
| Dibenz(a,h)anthracene | µg/L | <1 |
| Fluoranthene | µg/L | <1 |
| Fluorene | µg/L | <1 |
| Indeno(1,2,3-c,d)pyrene | µg/L | <1 |
| Naphthalene | µg/L | <1 |
| Phenanthrene | µg/L | <1 |
| Pyrene | µg/L | <1 |
| PAHs (Sum of total) | µg/L | <1 |
| Organochlorine Pesticides | | |
| 4,4-DDE | µg/L | <0.2 |
| a-BHC | µg/L | <0.2 |
| Aldrin | µg/L | <0.2 |
| Aldrin + Dieldrin | µg/L | <0.2 |
| b-BHC | µg/L | <0.2 |
| chlordane | µg/L | <2 |
| d-BHC | µg/L | <0.2 |
| DDD | µg/L | <0.2 |
| DDT | µg/L | <0.2 |
| DDT+DDE+DDD | µg/L | <0.2 |
| Dieldrin | µg/L | <0.2 |
| Endrin aldehyde | µg/L | <0.2 |
| Endrin ketone | µg/L | <0.2 |
| Endosulfan I | µg/L | <0.2 |
| Endosulfan II | µg/L | <0.2 |
| Endosulfan sulphate | µg/L | <0.2 |
| Endrin | µg/L | <0.2 |
| g-BHC (Lindane) | µg/L | <0.2 |
| Heptachlor | µg/L | <0.2 |
| Heptachlor epoxide | µg/L | <0.2 |
| Methoxychlor | µg/L | <0.2 |
| Toxaphene | mg/L | <0.005 |
| Organophosphorous Pesticides | | |
| Azinophos methyl | µg/L | <2 |
| Bolstar (Sulprofos) | µg/L | <2 |
| Chlorfenvinphos | µg/L | <20 |
| Chlorpyrifos | µg/L | <2 |
| Chlorpyrifos-methyl | mg/L | <0.002 |
| Coumaphos | µg/L | <20 |
| Demeton-O | µg/L | <2 |
| Demeton-S | µg/L | <2 |
| Diazinon | µg/L | <2 |
| Dichlorvos | µg/L | <2 |
| Disulfoton | µg/L | <2 |
| Dimethoate | µg/L | <2 |
| Ethoprop | µg/L | <2 |
| Ethion | µg/L | <2 |
| Fenitrothion | µg/L | <2 |
| Fensulfothion | µg/L | <2 |
| Fenthion | µg/L | <2 |
| EPN | µg/L | <2 |
| Merphos | mg/L | <0.002 |
| Malathion | µg/L | <2 |
| Methyl parathion | µg/L | <2 |
| Mevinphos (Phosdrin) | µg/L | <2 |
| Monocrotophos | µg/L | <2 |
| Naled (Dibrom) | µg/L | <2 |
| Omethoate | µg/L | <20 |
| Phorate | µg/L | <2 |
| Pyrazophos | µg/L | <2 |
| Ronnel | µg/L | <2 |
| Terbufos | µg/L | <2 |
| Trichloronate | µg/L | <2 |
| Tetrachlorvinphos | mg/L | <0.002 |
| PCBs | | |
| Arochlor 1016 | µg/L | <5 |
| Arochlor 1221 | µg/L | <5 |
| Arochlor 1232 | µg/L | <5 |
| Arochlor 1242 | µg/L | <5 |
| Arochlor 1248 | µg/L | <5 |
| Arochlor 1254 | µg/L | <5 |
| Arochlor 1260 | µg/L | <5 |
| PCBs (Sum of total) | µg/L | <5 |
| Pesticides | | |
| Parathion | µg/L | <2 |
| Pirimiphos-methyl | mg/L | <0.02 |