# TBM Spoil Waste Categorisation Report

| | | |
|---|---|---|
| **TBM Spoil Waste Cat Report No:** | **D03.0120220412104237_03** | **This report is attached as part of a WCR form referencing WGT-302-000-WKN-CJH-105-SWI-0001_01** |

## 1. Motherhub Summary

| | | | |
|---|---|---|---|
| Source TBM/Bin at Pivot | 1 | Source Geological Domain | 4 |
| Approx. Source Tunnel Chainage From | 313 | Approx. Source Tunnel Chainage To | 335 |
| Approx. Rings From | 132 | Approx. Rings To | 141 |
| Foaming Agent | TamSoil 287AC | Water Source | Potable (City West Water) |
| | | | |
| For BSF Holding Bay No: | D03.01 | Start of Filling From (Time / date) | 31/03/2022 |
| Tonnes Put in Holding Bay No: | 7516.55 | Finish of Filling (Time / Date) | 02/04/2022 |
| Classified Volume (LCM) | 4000 | Spoil Classification Decision | NPIW Containment |
| Sampling Ratio (samples per LCM) | 1: 210.53 | Approx. Bank Cubic Meters (BCM) | 4206.65 |

## 2. Agon Spoil Classification Decision

| | |
|---|---|
| Spoil Categorisation Decision (State Yes or No in each Row) | |
| NPIW Containment - 2020/476 (SO 9042848) | Yes |
| NPIW Landfill - 2019/404 (SO 9038429) | Yes |
| PIW-Category C - 2019/405 (SO 9038560) | No |
| PIW-Category B - 2019/406 (SO 9038561) | No |
| PIW-Category A | No |

## 3. Agon Spoil Classification Assessment

### 3.1 Applicable Samples

Table 3.1 - 1 lists the applicable sample numbers for this spoil. These have been determined from:

- The date / time bay filling was started
- The date / time bay filling was finished
- The ID of the first truck that deposited spoil in the bay and the date / time that it was filled at Pivot
- The ID of the last truck that deposited spoil in the bay and the date / time it was filled at Pivot
- The sample ID that was associated with the first truck – noting that a time window to be associated with each sample is half the time interval between its sampling time and the time of the preceding and the following samples. For example, is samples were collected at 8am, noon and 4 pm, the time window for the noon sample is between 10 am and 2 pm. That is this sample “belongs” to all truck loaded in this time window

Table 3.1 - Applicable Sample ID’s

*Table 3.1 - 1 Applicable Sample ID’s*

| | | |
|---|---|---|
| Applicable Spoil Sample ID’s | | |
| **SX_OB_20220331_08_03_SS_Primary_EUF** | **SX_OB_20220401_04_16_SS_Primary_ALS** | **SX_OB_20220402_00_00_SS_Primary_ALS** |
| **SX_OB_20220331_08_19_SS_Primary_ALS** | **SX_OB_20220401_08_08_SS_Primary_ALS** | **SX_OB_20220402_00_08_SS_Primary_EUF** |
| **SX_OB_20220331_21_00_SS_Primary_EUF** | **SX_OB_20220401_20_02_SS_Primary_EUF** | **SX_OB_20220402_03_59_SS_Primary_EUF** |
| **SX_OB_20220331_21_06_SS_Primary_ALS** | **SX_OB_20220401_20_08_SS_Primary_ALS** | **SX_OB_20220402_04_00_SS_Duplicate_EUF** |
| **SX_OB_20220401_00_08_SS_Primary_ALS** | **SX_OB_20220401_20_09_SS_Duplicate_ALS** | **SX_OB_20220402_04_02_SS_Triplicate_ALS** |
| **SX_OB_20220401_00_20_SS_Primary_EUF** | **SX_OB_20220401_20_10_SS_Triplicate_EUF** | **SX_OB_20220402_04_07_SS_Primary_ALS** |
| **SX_OB_20220401_04_12_SS_Primary_EUF** | | |
| | | |
| Total Sample Numbers | 19 | Ratio Acceptable |
| Primary Sample Numbers | 15 | Yes |
| Classified Volume (LCM) | 4000 $m^3$ | |
| Volume: Sample Number Ratio (Samples per LCM) | 1 : 210.53 | |
| | | |

## 3.2 Data Quality Compliance with SAQP

Table 3.2-1 evaluates the compliance of the data quality for this spoil – by reference to the criteria in the SAQP (Yes / No).

*Table 3.2 - 1 Evaluation of Quality of Data for this Spoil*

| DQI | Field Consideration | Laboratory Consideration | Overall Data Quality Acceptability |
|---|---|---|---|
| Precision | Yes | Yes | Yes |
| Accuracy | Yes | Yes | Yes |
| Representativeness | Yes | Yes | Yes |
| Completeness | Yes | Yes | Yes |
| Comparability | Yes | Yes | Yes |

## 3.3 Selection of the Spoil Sample Testing Regime

*Table 3.3 - 1 Selection of the Spoil Sample Testing Regime*

| | (State Yes or No in each Row) |
|---|---|
| A. Is testing all spoil samples taken required for spoil in this Holding Bay, because prior to this Holding Bay, less than 10 Holding Bays of spoil have been tested from this Domain<br><br>If the answer is Yes, go to E. If the answer is No, go to B. | **Yes** |
| B. If the answer to A is No (i.e., 10 or more Holding Bays of spoil have been tested from this Domain), do trends in the maximum data values from the previous 10 bays indicate that results are trending at <75% of the containment criteria?<br><br>If the answer is Yes, go to C. If the answer is No, go to D. | **NA** |
| C. If the answer to B is Yes, then was **testing** of spoil for this Holding Bay reduced to two primary samples per bay plus QC samples (Minimum Testing Regime) as allowed by the SAQP (See SAQP Section 6.2.7)? | **NA** |
| D. If the answer to B is No, then was the default testing regime implemented for all samples collected for the spoil in this Holding Bay (as required by the SAQP)? | **NA** |
| E. Based on the answers to Questions A to D above, was the default testing regime (as defined in the SAQP) applied to the spoil in this Holding Bay? | **Yes** |
| F. Based on the answers to Questions A to D above, was the Minimum testing Regime (as defined in the SAQP) applied to the spoil in this Holding Bay? | **No** |

## 3.4 Spoil Compliance with SAQP Criteria for Containment Cell

Table 3.4 - 1 Spoil Compliance with SAQP Criteria for Containment Cell

| | |
|---|---|
| **Need for IWRG 621.1 or 655.1 Testing** | |
| **A.** Is Spoil in this Holding Bay from a Zone of Exception or Anomalous and required testing for IWRG 621.1? | **No** |
| B. Is IWRG 621.1 testing required for spoil in this Holding Bay, because prior to this Holding Bay, less than 10 Holding Bays of spoil have been tested from this Domain? | **Yes** |
| C. Is IWRG 621.1 testing required for spoil in this Holding Bay, because the moving 95% UCL values for the previous 10 consecutive Holding Bays of spoil from this Domain are not below TC0? | **No** |
| D. Is testing pursuant to IWRG 655.1 required for spoil in this Holding Bay, because the spoil comes from Exception Zone 3 (See SAQP Section 5.4)? | **No** |
| E. Has spoil testing for IWRG 621.1 Parameters been triggered by results of spoil water tests for previous Holding Bays of spoil from this geological domain? | **No** |
| **Outcome from IWRG 621.1 testing (if needed)** | |
| F. If Yes to one or more Questions A, B, C or E, (and not NOC< applicable background concentrations) then do test results for IWRG 621.1 (see Table 3.4-2) prohibit NPIW Containment as a spoil Classification Outcome? If no to all of Questions A, B, C and E, then respond NA to this question. | **No** |
| **Outcome from IWRG 655.1 testing (if needed)** | |
| **G.** If Yes to Questions D, then do test results for IWRG 655.1 (see Table 3.4-3) permit NPIW Containment as a spoil Classification Outcome? If no to Question D, respond NA to this question | **NA** |
| **Outcome from PFAS Testing** | |
| H. Do test results for PFAS (see Table 3.4-4 below) permit NPIW Containment as a spoil Classification Outcome? | **Yes** |
| | |
| ***If Yes to either or both of Question E or F, then Spoil is Not Suitable for Containment; Go to Section 3.5. Otherwise, it is Suitable for Containment*** | |
| | |
| Notes:<br>1. Criteria taken from EPA Grandfathered Classifications for TBM Spoil (2020/476 (SO 9042848)), and from the EPA approved EMP for Hi Quality's Containment Cell | |
| | |

# TBM Spoil Waste Categorisation Report

| TBM Spoil Waste Cat Report No: | D03.0120220412104237_03 | This report is attached as part of a WCR form referencing WGT-302-000-WKN-CJH-105-SWI-0001_01 |
|---|---|---|

*Table 3.4 - 2 IWRG 621.1 Parameter Concentration Statistics & Spoil Suitability for Containment*

| IWRG 621.1 Exceedance Test Results | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Chemical** | **Unit** | **LOR** | **No. of samples** | **No. of primary samples** | **Sample: LCM Ratio** | **No > LOR** | **Min** | **Mean** | **95% UCL on Mean** | **Max** | **Limiting Criteria for NPIW Containment** | **Comment** |
| Arsenic | mg/kg | 2 | 19* | 15 | 1: 210.53 | 19 | 14 | 27.63 | 30.42 | 41 | 20 | NPIW-Containment - considered to be naturally occurring chemical, see comment 1 (Section 4) |
| Nickel | mg/kg | 5 | 19* | 15 | 1: 210.53 | 19 | 152 | 182.5 | 190.3 | 220 | 60 | NPIW-Containment - considered to be naturally occurring chemical, see comment 1 (Section 4) |

"*" - Ratio used for categorisation of spoil is samples to LCM due to spoil not being from a zone of exception. (See Section 4)

*Table 3.4 – 3 IWRG 655.1 (WASS) Parameter Concentration Statistics & Spoil Suitability for Containment*

| IWRG 655.1 Test Results | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chemical | Unit | LOR | No. of primary samples | Sample: LCM Ratio | No > LOR | Min | Mean | 95% UCL on Mean | Max | Limiting Criteria for NPIW Containment | Comment |
| pHF | pH | | | | | | | | | 5 | |
| pHFox | pH | | | | | | | | | 5 | |
| Delta pH | | | | | | | | | | 2 | |
| %S | % | | | | | | | | | 0.03% | |
| Mol H+ /tonne | Mol/ tonne | | | | | | | | | 18 | |
| | | | | | | | | | | | |

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*Table 3.4 - 4 PFAS Parameter Concentrations & Spoil Suitability for Containment*

| PFAS Test Results | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Chemical** | **Unit** | **LOR** | **No. of Samples** | **No. of primary samples** | **No > LOR** | **Min** | **Mean** | **95% UCL on Mean** | **Max** | **Upper Limiting Criteria for NPIW Containment** | **Spoil Category for PFAS** |
| Total PFAS Concentrations | | | | | | | | | | | |
| Total PFOS | ug/kg | 5 | 19* | 15 | 0 | N/A | N/A | N/A | <5 | N/A | NPIW-Containment |
| Total PFOA | ug/kg | 5 | 19* | 15 | 0 | N/A | N/A | N/A | <5 | N/A | NPIW-Containment |
| Total PFHxS | ug/kg | 5 | 19* | 15 | 0 | N/A | N/A | N/A | <5 | N/A | NPIW-Containment |
| ASLP (pH= 5) PFAS Concentrations | | | | | | | | | | | |
| PFOA | ug/L | 0.01 | 19* | 15 | 0 | N/A | N/A | N/A | <0.01 | 56 | NPIW-Containment |
| PFOS+PFHxS | ug/L | 0.01 | 19* | 15 | 0 | N/A | N/A | N/A | <0.01 | 7 | NPIW-Containment |
| ASLP (pH= 7) PFAS Concentrations | | | | | | | | | | | |
| PFOA | ug/L | 0.01 | 19* | 15 | 0 | N/A | N/A | N/A | <0.01 | 56 | NPIW-Containment |
| PFOS+PFHxS | ug/L | 0.01 | 19* | 15 | 0 | N/A | N/A | N/A | <0.01 | 7 | NPIW-Containment |

“*” - Ratio used for categorisation of spoil is total samples to LCM due to spoil not being from a zone of exception. (See Section 4)

## 3.5 Waste Classification for Spoil Not Suitable for Containment Cell

This Section 3.5 and the Tables 3.5-1 to 3.5-3 only apply if the spoil is classified in Section 3.4 as not suitable for the Containment Cell. If the spoil is classified in Section 3.4 as not suitable for the Containment Cell, then Tables 3.5-1 and 3.5-2 contain no data and no assessment.

Table 3.5 - 1 below contains the statistics for IWRG 621.1 Parameter concentrations, and Agon's assessment of their implications for the spoil waste category

Table 3.5 - 2 below contains the statistics for IWRG 655.1 Parameter concentrations, and Agon's assessment of their implications for the spoil waste category

Table 3.5 - 3 below contains the statistics for PFAS concentration, and Agon's assessment of their implications for the spoil waste category

*Table 3.5 - 1 IWRG 621.1 Parameter Concentration Statistics & Waste Classifications*

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IWRG 621.1 Exceedance Test Results | | | | | | | | | | | | | |
| Chemical | Unit | LOR | No. of primary samples | Sample: LCM Ratio | No > LOR | Min | Mean | 95% UCL on Mean | Max | Limiting Criteria for NPIW | Limiting Criteria for Cat C | Limiting Criteria for Cat B | Comment |
| | | | | | | | | | | | | | |
| Arsenic | mg/kg | | | | | | | | | | | | |
| Copper | mg/kg | | | | | | | | | | | | |
| Chromium (Hexavalent) | mg/kg | | | | | | | | | | | | |
| Nickel | mg/kg | | | | | | | | | | | | |
| Fluoride | mg/kg | | | | | | | | | | | | |

*Table 3.5 – 2 IWRG 655.1 (WASS) Parameter Concentration Statistics & Waste Classification*

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **IWRG 655.1 Test Results** | | | | | | | | | | | |
| Chemical | Unit | LOR | No. of primary samples | Sample: LCM Ratio | No > LOR | Min | Mean | 95% UCL on Mean | Max | Limiting Criteria for NPIW Containment | Comment |
| pHF | pH | | | | | | | | | 5 | |
| pHFox | pH | | | | | | | | | 5 | |
| Delta pH | | | | | | | | | | 2 | |
| %S | % | | | | | | | | | 0.03% | |
| Mol H+ /tonne | Mol/ tonne | | | | | | | | | 18 | |
| | | | | | | | | | | | |

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|---|---|---|

*Table 3.5 - 3 PFAS Parameter Concentrations and Waste Classifications*

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PFAS Test Results** | | | | | | | | | | | | | |
| Chemical | Unit | LOR | No. of primary samples | No > LOR | Min | Mean | 95% UCL on Mean | Max | Upper Limiting Criteria for NPIW Containment | Upper Limiting Criteria for NPIW Landfill | Upper Limiting Criteria for PIW Cat C | Upper Limiting Criteria for PIW Cat B | Spoil Category for PFAS |
| Total PFAS Concentrations | | | | | | | | | | | | | |
| Total PFOS | ug/kg | | | | | | | | | | | | |
| Total PFOA | ug/kg | | | | | | | | | | | | |
| Total PFHxS | ug/kg | | | | | | | | | | | | |
| ASLP (pH= 5) PFAS Concentrations | | | | | | | | | | | | | |
| PFOA | ug/L | | | | | | | | | | | | |
| PFOS+PFHxS | ug/L | | | | | | | | | | | | |
| ASLP (pH= 7) PFAS Concentrations | | | | | | | | | | | | | |
| PFOA | ug/L | | | | | | | | | | | | |
| PFOS+PFHxS | ug/L | | | | | | | | | | | | |

## 4. Comments and Limitations

| | |
|---|---|
| Comments and Limitations | |
| 1. | Naturally Occurring Chemicals listed in IWRG 621.1 that are within the Background range despite being reported at concentrations that would otherwise categorise the material as PIW:<br>1. Technical discussion around the naturally occurring metal concentrations found in soils beneath the WGTP is detailed in *Golder (2017b) – Technical Report B, Appendix E – Environmental characterisation of spoil (natural soil and rock).* The report indicates that elevated metals (including arsenic, nickel, copper, chromium (CrVI), zinc and mercury) were considered to be associated with natural enrichment instead of anthropogenic contamination.<br>a. **Arsenic** – *Golder (2017b) – Technical Report B, Appendix E* section 6.2 *Arsenic enrichment in the residual soil of the upper Older Volcanics (Tvo1)* found that while the soil of the upper Older Volcanics sub-unit contains arsenic, the arsenic is not characteristic of the wider sub unit (i.e the rock) or the lower sub-unit (soil or rock). The concentration of arsenic therefore appears to be related to the chemical and biological weather of the unit over time. This is further supported by:<br>i. The residual soil of the sub-unit being characterised by iron-oxide staining and containing goethite. Goethite is an iron oxyhydroxide mineral, which can contain elevated concentrations of arsenic.<br>Golder therefore concluded that based on the broad vertical distribution of arsenic and the presence of arsenic throughout the greater project area, arsenic results in Upper Older Volcanics soil are not likely to be associated with anthropogenic contamination.<br>b. **Nickel** – *Golder (2017b) – Technical Report B, Appendix E* section 6.3 *Nickel enrichment within the upper Older Volcanics* found that<br>i. Nickel is known to be enriched within olivine and pyroxene basalt minerals, leading to nickel enrichment of soils weathered from basalt (Martini and Chesworth, 2013).<br>ii. The reported mean nickel concentrations within the Older Volcanics (Tvo) were comparable to results reported within soils derived from basalt in Auckland and basalt rock of Finland (ARC, 2001; Koljonen, 1992), Older Volcanics observed in the Melbourne Metro Project (Golder, 1026a) and Newer Volcanics basalt of the Westenra Plains (Birch, 2003).<br>iii. Enriched nickel concentrations corresponded with enriched cobalt (all units) and iron (except tertiary volcanics (Tvo2) soil) indicating that the nickel is likely associated with geochemical enrichment rather than added contamination. |

| | |
|---|---|
| | iv. Enriched nickel concentrations also corresponded with enriched copper (Tvo2 soil and rock) and zinc (all units) indicating that the nickel is likely associated with geochemical enrichment rather than added contamination.<br>Golder therefore concluded that the nickel is likely associated with geochemical enrichment rather than added contamination.<br>The Golder study found that based on review of the depth, site history and the geochemical association of elements, the reported elevated concentrations of arsenic and nickel are considered representative of geogenic conditions and are not expected to be associated with contamination. |
| 2. | Test result outcomes can lead to two classification possibilities, however the classification decision follows the preference of the waste management hierarchy. |
| 3. | Spoil is not from a "Zone of Exception". Spoil from a zone of exception applies a sampling ratio of only Primary Samples to LCM to categorise spoil as per the SAQP revision 5. Sample to categorised volume ratio in zones of exception is to be as per IWRG702 with 1 primary spoil sample categorising a maximum 250 m3 of spoil. |
| 4. | Loose Cubic metres (LCM) to mass (tonnes) conversion ratio used is 1 LCM:1.6 tonnes |
| 5. | This report has been prepared in accordance with industry recognised standards and procedures current at the time of the work. The report presents the results of the assessment based on the quoted scope of works (unless otherwise agreed in writing) for the specific purposes of the engagement by the Client. No warranties expressed or implied, are offered to any third parties and no liability will be accepted for use of this report by third parties. |
| 6. | All information provided by third parties has been assumed to be correct and complete. Agon does not assume any liability for misrepresentation of information by third parties or for matters not visible, accessible or present on the subject site. |
| 7. | Opinions and judgements expressed herein are based on Agon's understanding of current regulatory standards and should not be construed as legal opinions.<br>No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties other than those listed above. |
| 8. | This report should be read in full. |
| | |

## 5. Attachments

ATTACHMENT A: TABULATED RESULTS

ATTACHMENT B: 95% UCL AVE CALCULATIONS

ATTACHMENT C: LABORATORY CERTIFICATES

ATTACHMENT A: TABULATED RESULTS

| | | | | | | | | Metals | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Arsenic | Cadmium | Copper | Chromium (III+VI) | Chromium (hexavalent) | Lead | Mercury | Molybdenum | Nickel | Selenium |
| | | | | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| EQL | | | | | | | | 2 | 0.4 | 5 | 5 | 1 | 5 | 0.1 | 5 | 5 | 2 |
| EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Threshold | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Threshold | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Threshold | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - No option for disposal threshold | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category B Leached Upper Limits | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category B Upper Limits | | | | | | | | 2,000 | 400 | 20,000 | | 2,000 | 6,000 | 300 | 4,000 | 12,000 | 200 |
| EPA Victoria IWRG621 Category C Leached Upper Limits | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category C Upper Limts | | | | | | | | 500 | 100 | 5,000 | | 500 | 1,500 | 75 | 1,000 | 3,000 | 50 |
| EPA Victoria IWRG621 Fill Upper Limits | | | | | | | | 20 | 3 | 100 | | 1 | 300 | 1 | 40 | 60 | 10 |
| Location Code | Field ID | Sample Code | Date | Lab Report Number | Lab Name | Sample Type | Parent Sample | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | M22-Ap0001195 | 31/03/2022 | 876487 | MGT | Normal | | 26 | <0.4 | 52 | 120 | <1 | <5 | <0.1 | <5 | 180 | <2 |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | M22-Ap0001200 | 31/03/2022 | 876487 | MGT | Normal | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | M22-Ap0001205 | 31/03/2022 | 876487 | MGT | Normal | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_19_SS_Primary_ALS | EM2205909001 | 31/03/2022 | EM2205909 | ALSE-Melbourne | Normal | | 30 | 1 | 57 | 103 | <1.0 | <5 | <0.1 | <5 | 178 | <5 |
| D03.01 | SX_OB_20220331_08_19_SS_Primary_ALS | EM2205909008 | 31/03/2022 | EM2205909 | ALSE-Melbourne | Normal | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | M22-Ap0001196 | 31/03/2022 | 876487 | MGT | Normal | | 21 | <0.4 | 65 | 150 | <1 | <5 | <0.1 | <5 | 210 | <2 |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | M22-Ap0001201 | 31/03/2022 | 876487 | MGT | Normal | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | M22-Ap0001206 | 31/03/2022 | 876487 | MGT | Normal | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_21_06_SS_Primary_ALS | EM2205909003 | 31/03/2022 | EM2205909 | ALSE-Melbourne | Normal | | 28 | <1 | 56 | 105 | <1.0 | <5 | <0.1 | <5 | 171 | <5 |
| D03.01 | SX_OB_20220331_21_06_SS_Primary_ALS | EM2205909010 | 31/03/2022 | EM2205909 | ALSE-Melbourne | Normal | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_00_08_SS_Primary_ALS | EM2205909004 | 1/04/2022 | EM2205909 | ALSE-Melbourne | Normal | | 41 | <1 | 55 | 105 | <1.0 | <5 | <0.1 | <5 | 172 | <5 |
| D03.01 | SX_OB_20220401_00_08_SS_Primary_ALS | EM2205909011 | 1/04/2022 | EM2205909 | ALSE-Melbourne | Normal | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | M22-Ap0001197 | 1/04/2022 | 876487 | MGT | Normal | | 23 | <0.4 | 71 | 160 | <1 | <5 | <0.1 | <5 | 220 | <2 |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | M22-Ap0001202 | 1/04/2022 | 876487 | MGT | Normal | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | M22-Ap0001207 | 1/04/2022 | 876487 | MGT | Normal | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | M22-Ap0001198 | 1/04/2022 | 876487 | MGT | Normal | | 39 | <0.4 | 64 | 150 | <1 | <5 | <0.1 | <5 | 210 | <2 |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | M22-Ap0001203 | 1/04/2022 | 876487 | MGT | Normal | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | M22-Ap0001208 | 1/04/2022 | 876487 | MGT | Normal | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_04_16_SS_Primary_ALS | EM2205909005 | 1/04/2022 | EM2205909 | ALSE-Melbourne | Normal | | 26 | <1 | 54 | 100 | <1.0 | <5 | <0.1 | <5 | 164 | <5 |
| D03.01 | SX_OB_20220401_04_16_SS_Primary_ALS | EM2205909012 | 1/04/2022 | EM2205909 | ALSE-Melbourne | Normal | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_08_08_SS_Primary_ALS | EM2205886008 | 1/04/2022 | EM2205886 | ALSE-Melbourne | Normal | | 33 | 1 | 72 | 126 | <1.0 | <5 | <0.1 | <5 | 186 | <5 |
| D03.01 | SX_OB_20220401_08_08_SS_Primary_ALS | EM2205886014 | 1/04/2022 | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | M22-Ap0002510 | 1/04/2022 | 876688 | MGT | Normal | | 39 | <0.4 | 59 | 110 | <1 | <5 | <0.1 | <5 | 190 | <2 |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | M22-Ap0002517 | 1/04/2022 | 876688 | MGT | Normal | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | M22-Ap0002522 | 1/04/2022 | 876688 | MGT | Normal | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Primary_ALS | EM2205886001 | 1/04/2022 | EM2205886 | ALSE-Melbourne | Normal | | 29 | <1 | 56 | 100 | <1.0 | <5 | <0.1 | <5 | 174 | <5 |
| D03.01 | SX_OB_20220401_20_08_SS_Primary_ALS | EM2205886009 | 1/04/2022 | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Duplicate_ALS | EM2205886002 | 1/04/2022 | EM2205886 | ALSE-Melbourne | Field_D | EM2205886001 | 28 | 1 | 56 | 88 | <1.0 | <5 | <0.1 | <5 | 169 | <5 |
| D03.01 | SX_OB_20220401_20_09_SS_Duplicate_ALS | EM2205886010 | 1/04/2022 | EM2205886 | ALSE-Melbourne | Field_D | EM2205886009 | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | M22-Ap0002509 | 1/04/2022 | 876688 | MGT | Interlab_D | EM2205886001 | 31 | <0.4 | 59 | 120 | <1 | <5 | <0.1 | <5 | 190 | <2 |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | M22-Ap0002516 | 1/04/2022 | 876688 | MGT | Interlab_D | EM2205886001 | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | M22-Ap0002521 | 1/04/2022 | 876688 | MGT | Interlab_D | EM2205886009 | | | | | | | | | | |
| D03.01 | SX_OB_20220402_00_00_SS_Primary_ALS | EM2205886005 | 2/04/2022 | EM2205886 | ALSE-Melbourne | Normal | | 22 | <1 | 47 | 71 | <1.0 | <5 | <0.1 | <5 | 169 | <5 |
| D03.01 | SX_OB_20220402_00_00_SS_Primary_ALS | EM2205886011 | 2/04/2022 | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | M22-Ap0002511 | 2/04/2022 | 876688 | MGT | Normal | | 29 | <0.4 | 57 | 100 | <1 | <5 | <0.1 | <5 | 180 | <2 |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | M22-Ap0002518 | 2/04/2022 | 876688 | MGT | Normal | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | M22-Ap0002523 | 2/04/2022 | 876688 | MGT | Normal | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | M22-Ap0002512 | 2/04/2022 | 876688 | MGT | Normal | | 23 | <0.4 | 68 | 130 | <1 | <5 | <0.1 | <5 | 220 | <2 |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | M22-Ap0002519 | 2/04/2022 | 876688 | MGT | Normal | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | M22-Ap0002524 | 2/04/2022 | 876688 | MGT | Normal | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | M22-Ap0002513 | 2/04/2022 | 876688 | MGT | Field_D | M22-Ap0002512 | 14 | <0.4 | 55 | 110 | <1 | <5 | <0.1 | <5 | 170 | <2 |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | M22-Ap0002520 | 2/04/2022 | 876688 | MGT | Field_D | M22-Ap0002519 | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | M22-Ap0002525 | 2/04/2022 | 876688 | MGT | Field_D | M22-Ap0002524 | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_02_SS_Triplicate_ALS | EM2205886006 | 2/04/2022 | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002512 | 19 | <1 | 53 | 94 | <1.0 | <5 | <0.1 | <5 | 162 | <5 |
| D03.01 | SX_OB_20220402_04_02_SS_Triplicate_ALS | EM2205886012 | 2/04/2022 | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002524 | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_07_SS_Primary_ALS | EM2205886007 | 2/04/2022 | EM2205886 | ALSE-Melbourne | Normal | | 24 | <1 | 50 | 81 | <1.0 | <5 | <0.1 | <5 | 152 | <5 |
| D03.01 | SX_OB_20220402_04_07_SS_Primary_ALS | EM2205886013 | 2/04/2022 | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | |

| | | | | | PAH | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Silver | Tin | Zinc | PAHs (Vic EPA List) | Benzo(b+j+k)fluoranthene | Acenaphthene | Acenaphthylene | Anthracene | Benz(a)anthracene | Benzo(a)pyrene TEQ calc (Zero) | Benzo(a)pyrene TEQ (LOR) | Benzo(a)pyrene TEQ calc (Half) | Benzo(a) pyrene | Benzo(b+j)fluoranthene | Benzo(g,h,i)perylene | Benzo(k)fluoranthene | Chrysene | Dibenz(a,h)anthracene | Fluoranthene | Fluorene | Indeno(1,2,3-c,d)pyrene | Naphthalene |
| | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| EQL | | 2 | 10 | 5 | 0.5 | 1 | 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 | 0.5 | 0.5 |
| EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 903842 | | | | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 903856 | | | | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 903856 | | | | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - No option for disposa | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category B Leached Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category B Upper Limits | | 720 | | 140,000 | 400 | | | | | | | | | 20 | | | | | | | | | |
| EPA Victoria IWRG621 Category C Leached Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category C Upper Limts | | 180 | 500 | 35,000 | 100 | | | | | | | | | 5 | | | | | | | | | |
| EPA Victoria IWRG621 Fill Upper Limits | | 10 | 50 | 200 | 20 | | | | | | | | | 1 | | | | | | | | | |
| **Location Code** | **Field ID** | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | <2 | <10 | 100 | | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_19_SS_Primary_ALS | <2 | <10 | 98 | <0.5 | <1.0 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 | <0.5 | | <0.5 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220331_08_19_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | <2 | <10 | 120 | | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_21_06_SS_Primary_ALS | <2 | <10 | 85 | <0.5 | <1.0 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 | <0.5 | | <0.5 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220331_21_06_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_00_08_SS_Primary_ALS | <2 | <10 | 91 | <0.5 | <1.0 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 | <0.5 | | <0.5 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220401_00_08_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | <2 | <10 | 130 | | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | <2 | <10 | 130 | | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_04_16_SS_Primary_ALS | <2 | <10 | 90 | <0.5 | <1.0 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 | <0.5 | | <0.5 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220401_04_16_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_08_08_SS_Primary_ALS | <2 | <10 | 102 | <0.5 | <1.0 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 | <0.5 | | <0.5 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220401_08_08_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | <2 | <10 | 110 | | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Primary_ALS | <2 | <10 | 88 | <0.5 | <1.0 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 | <0.5 | | <0.5 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220401_20_08_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Duplicate_ALS | <2 | <10 | 78 | <0.5 | <1.0 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 | <0.5 | | <0.5 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220401_20_09_SS_Duplicate_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | <2 | <10 | 110 | | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_00_00_SS_Primary_ALS | <2 | <10 | 68 | <0.5 | <1.0 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 | <0.5 | | <0.5 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220402_00_00_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | <2 | <10 | 110 | | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | <2 | <10 | 120 | | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | <2 | <10 | 91 | | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_02_SS_Triplicate_ALS | <2 | <10 | 70 | <0.5 | <1.0 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 | <0.5 | | <0.5 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220402_04_02_SS_Triplicate_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_07_SS_Primary_ALS | <2 | <10 | 71 | <0.5 | <1.0 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 | <0.5 | | <0.5 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220402_04_07_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | BTEX | | | | | | TRH | | | | | | | | TPH | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Phenanthrene | Pyrene | PAHs (Sum of total) | Benzene | Ethylbenzene | Toluene | Xylene (o) | Xylene (m & p) | Xylene Total | C6-C10 | C6-C10 (F1 minus BTEX) | C10-C16 | C10-C16 (F2 minus Naphthalene) | C16-C34 | C34-C40 | C10-C40 (Sum of total) | C6-C9 | C10-C14 | C15-C28 | C29-C36 | +C10-C36 (Sum of total) | Aldrin |
| | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| EQL | | 0.5 | 0.5 | 0.5 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 20 | 20 | 50 | 50 | 100 | 100 | 50 | 20 | 20 | 50 | 50 | 50 | 0.05 |
| EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 903842 | | | | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 903856 | | | | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 903856 | | | | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - No option for disposa | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category B Leached Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category B Upper Limits | | | | 400 | 16 | | | | | | | | | | | | | 2,600 | | | | 40,000 | |
| EPA Victoria IWRG621 Category C Leached Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category C Upper Limts | | | | 100 | 4 | | | | | | | | | | | | | 650 | | | | 10,000 | |
| EPA Victoria IWRG621 Fill Upper Limits | | | | 20 | 1 | | | | | | | | | | | | | 100 | | | | 1,000 | |
| **Location Code** | **Field ID** | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | <0.5 | <0.5 | <0.5 | <0.1 | <0.1 | <0.1 | <0.1 | <0.2 | <0.3 | <20 | <20 | 69 | 69 | <100 | <100 | <100 | <20 | 46 | <50 | <50 | <50 | <0.05 |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_19_SS_Primary_ALS | <0.5 | <0.5 | | <0.2 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <20 | <20 | <50 | <50 | <100 | <100 | <50 | <20 | <50 | <100 | <100 | <50 | <0.05 |
| D03.01 | SX_OB_20220331_08_19_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | <0.5 | <0.5 | <0.5 | <0.1 | <0.1 | <0.1 | <0.1 | <0.2 | <0.3 | <20 | <20 | <50 | <50 | <100 | <100 | <100 | <20 | <20 | <50 | <50 | <50 | <0.05 |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_21_06_SS_Primary_ALS | <0.5 | <0.5 | | <0.2 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <20 | <20 | <50 | <50 | <100 | <100 | <50 | <20 | <50 | <100 | <100 | <50 | <0.05 |
| D03.01 | SX_OB_20220331_21_06_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_00_08_SS_Primary_ALS | <0.5 | <0.5 | | <0.2 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <20 | <20 | <50 | <50 | <100 | <100 | <50 | <20 | <50 | <100 | <100 | <50 | <0.05 |
| D03.01 | SX_OB_20220401_00_08_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | <0.5 | <0.5 | <0.5 | <0.1 | <0.1 | <0.1 | <0.1 | <0.2 | <0.3 | <20 | <20 | <50 | <50 | <100 | <100 | <100 | <20 | <20 | <50 | <50 | <50 | <0.05 |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | <0.5 | <0.5 | <0.5 | <0.1 | <0.1 | <0.1 | <0.1 | <0.2 | <0.3 | <20 | <20 | 85 | 85 | <100 | <100 | <100 | <20 | 56 | <50 | <50 | 56 | <0.05 |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_04_16_SS_Primary_ALS | <0.5 | <0.5 | | <0.2 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <20 | <20 | <50 | <50 | <100 | <100 | <50 | <20 | <50 | <100 | <100 | <50 | <0.05 |
| D03.01 | SX_OB_20220401_04_16_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_08_08_SS_Primary_ALS | <0.5 | <0.5 | | <0.2 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <20 | <20 | <50 | <50 | <100 | <100 | <50 | <20 | <50 | <100 | <100 | <50 | <0.05 |
| D03.01 | SX_OB_20220401_08_08_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | <0.5 | <0.5 | <0.5 | <0.1 | <0.1 | <0.1 | <0.1 | <0.2 | <0.3 | <20 | <20 | <50 | <50 | <100 | <100 | <100 | <20 | <20 | <50 | <50 | <50 | <0.05 |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Primary_ALS | <0.5 | <0.5 | | <0.2 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <20 | <20 | <50 | <50 | <100 | <100 | <50 | <20 | <50 | <100 | <100 | <50 | <0.05 |
| D03.01 | SX_OB_20220401_20_08_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Duplicate_ALS | <0.5 | <0.5 | | <0.2 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <20 | <20 | <50 | <50 | <100 | <100 | <50 | <20 | <50 | <100 | <100 | <50 | <0.05 |
| D03.01 | SX_OB_20220401_20_09_SS_Duplicate_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | <0.5 | <0.5 | <0.5 | <0.1 | <0.1 | <0.1 | <0.1 | <0.2 | <0.3 | <20 | <20 | <50 | <50 | <100 | <100 | <100 | <20 | <20 | <50 | <50 | <50 | <0.05 |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_00_00_SS_Primary_ALS | <0.5 | <0.5 | | <0.2 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <20 | <20 | <50 | <50 | <100 | <100 | <50 | <20 | <50 | <100 | <100 | <50 | <0.05 |
| D03.01 | SX_OB_20220402_00_00_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | <0.5 | <0.5 | <0.5 | <0.1 | <0.1 | <0.1 | <0.1 | <0.2 | <0.3 | <20 | <20 | <50 | <50 | <100 | <100 | <100 | <20 | <20 | <50 | <50 | <50 | <0.05 |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | <0.5 | <0.5 | <0.5 | <0.1 | <0.1 | <0.1 | <0.1 | <0.2 | <0.3 | <20 | <20 | <50 | <50 | <100 | <100 | <100 | <20 | <20 | <50 | <50 | <50 | <0.05 |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | <0.5 | <0.5 | <0.5 | <0.1 | <0.1 | <0.1 | <0.1 | <0.2 | <0.3 | <20 | <20 | <50 | <50 | <100 | <100 | <100 | <20 | <20 | <50 | <50 | <50 | <0.05 |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_02_SS_Triplicate_ALS | <0.5 | <0.5 | | <0.2 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <20 | <20 | <50 | <50 | <100 | <100 | <50 | <20 | <50 | <100 | <100 | <50 | <0.05 |
| D03.01 | SX_OB_20220402_04_02_SS_Triplicate_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_07_SS_Primary_ALS | <0.5 | <0.5 | | <0.2 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <20 | <20 | <50 | <50 | <100 | <100 | <50 | <20 | <50 | <100 | <100 | <50 | <0.05 |
| D03.01 | SX_OB_20220402_04_07_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |

| | | Organochlorine Pesticides | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Dieldrin | Aldrin + Dieldrin | DDD | DDT | 4,4-DDE | DDT+DDE+DDD | Endosulfan I | Endosulfan II | Endrin | Endrin ketone | Endrin aldehyde | Endosulfan sulphate | chlordane | Chlordane (cis) | Chlordane (trans) | Hexachlorobenzene | Heptachlor | Heptachlor epoxide | a-BHC | b-BHC | d-BHC | g-BHC (Lindane) |
| | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| EQL | | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.1 | 0.03 | 0.03 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 |
| EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 903842 | | | | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 903856 | | | | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 903856 | | | | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - No option for disposa | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category B Leached Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category B Upper Limits | | | 4.8 | | | | 50 | | | | | | | 16 | | | | 4.8 | | | | | |
| EPA Victoria IWRG621 Category C Leached Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category C Upper Limts | | | 1.2 | | | | 50 | | | | | | | 4 | | | | 1.2 | | | | | |
| EPA Victoria IWRG621 Fill Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| **Location Code** | **Field ID** | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.1 | | | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_19_SS_Primary_ALS | <0.05 | <0.30 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | | <0.05 | <0.05 | <0.10 | <0.03 | <0.03 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220331_08_19_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.1 | | | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_21_06_SS_Primary_ALS | <0.05 | <0.30 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | | <0.05 | <0.05 | <0.10 | <0.03 | <0.03 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220331_21_06_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_00_08_SS_Primary_ALS | <0.05 | <0.30 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | | <0.05 | <0.05 | <0.10 | <0.03 | <0.03 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220401_00_08_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.1 | | | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.1 | | | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_04_16_SS_Primary_ALS | <0.05 | <0.30 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | | <0.05 | <0.05 | <0.10 | <0.03 | <0.03 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220401_04_16_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_08_08_SS_Primary_ALS | <0.05 | <0.30 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | | <0.05 | <0.05 | <0.10 | <0.03 | <0.03 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220401_08_08_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.1 | | | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Primary_ALS | <0.05 | <0.30 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | | <0.05 | <0.05 | <0.10 | <0.03 | <0.03 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220401_20_08_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Duplicate_ALS | <0.05 | <0.30 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | | <0.05 | <0.05 | <0.10 | <0.03 | <0.03 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220401_20_09_SS_Duplicate_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.1 | | | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_00_00_SS_Primary_ALS | <0.05 | <0.30 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | | <0.05 | <0.05 | <0.10 | <0.03 | <0.03 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220402_00_00_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.1 | | | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.1 | | | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.1 | | | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_02_SS_Triplicate_ALS | <0.05 | <0.30 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | | <0.05 | <0.05 | <0.10 | <0.03 | <0.03 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220402_04_02_SS_Triplicate_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_07_SS_Primary_ALS | <0.05 | <0.30 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | | <0.05 | <0.05 | <0.10 | <0.03 | <0.03 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220402_04_07_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | Phenols | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Methoxychlor | Toxaphene | Organochlorine pesticides EPAVic | Other organochlorine pesticides EPAVic | 2-Chlorophenol | 2,4-Dichlorophenol | 2,4,5-Trichlorophenol | 2,4,6-Trichlorophenol | 2,6-Dichlorophenol | 4-chloro-3-methylphenol | Pentachlorophenol | 2,3,4,5 & 2,3,4,6-Tetrachlorophenol | 4,6-Dinitro-2-methylphenol | Tetrachlorophenols | 2,3,5,6-Tetrachlorophenol | Cresol Total | 4,6-Dinitro-o-cyclohexyl phenol | Phenols (halogenated) EPAVic | Phenols (non-halogenated) EPAVic | 2,4-Dimethylphenol | 2-Methylphenol | 2-Nitrophenol |
| | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| EQL | | 0.05 | 0.5 | 0.1 | 0.03 | 0.5 | 0.5 | 1 | 1 | 0.5 | 1 | 1 | 0.05 | 5 | 10 | 0.03 | 0.5 | 20 | 1 | 20 | 0.5 | 0.2 | 1 |
| EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 903842 | | | | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 903856 | | | | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 903856 | | | | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - No option for disposa | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category B Leached Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category B Upper Limits | | | | | 50 | | | | | | | | | | | | | | 320 | 2,200 | | | |
| EPA Victoria IWRG621 Category C Leached Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category C Upper Limts | | | | | 10 | | | | | | | | | | | | | | 10 | 560 | | | |
| EPA Victoria IWRG621 Fill Upper Limits | | | | 1 | | | | | | | | | | | | | | | 1 | 60 | | | |
| Location Code | Field ID | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | <0.05 | <0.5 | <0.1 | <0.1 | <0.5 | <0.5 | <1 | <1 | <0.5 | <1 | <1 | | <5 | <10 | | <0.5 | <20 | | | <0.5 | <0.2 | <1 |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_19_SS_Primary_ALS | <0.05 | | <0.10 | <0.03 | <0.50 | <0.50 | <1.00 | <1.00 | <0.50 | <1.00 | <1.0 | <0.05 | <5 | | <0.03 | | <20 | <1.00 | <20 | <1 | <1 | <1 |
| D03.01 | SX_OB_20220331_08_19_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | <0.05 | <0.5 | <0.1 | <0.1 | <0.5 | <0.5 | <1 | <1 | <0.5 | <1 | <1 | | <5 | <10 | | <0.5 | <20 | | | <0.5 | <0.2 | <1 |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_21_06_SS_Primary_ALS | <0.05 | | <0.10 | <0.03 | <0.50 | <0.50 | <1.00 | <1.00 | <0.50 | <1.00 | <1.0 | <0.05 | <5 | | <0.03 | | <20 | <1.00 | <20 | <1 | <1 | <1 |
| D03.01 | SX_OB_20220331_21_06_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_00_08_SS_Primary_ALS | <0.05 | | <0.10 | <0.03 | <0.50 | <0.50 | <1.00 | <1.00 | <0.50 | <1.00 | <1.0 | <0.05 | <5 | | <0.03 | | <20 | <1.00 | <20 | <1 | <1 | <1 |
| D03.01 | SX_OB_20220401_00_08_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | <0.05 | <0.5 | <0.1 | <0.1 | <0.5 | <0.5 | <1 | <1 | <0.5 | <1 | <1 | | <5 | <10 | | <0.5 | <20 | | | <0.5 | <0.2 | <1 |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | <0.05 | <0.5 | <0.1 | <0.1 | <0.5 | <0.5 | <1 | <1 | <0.5 | <1 | <1 | | <5 | <10 | | <0.5 | <20 | | | <0.5 | <0.2 | <1 |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_04_16_SS_Primary_ALS | <0.05 | | <0.10 | <0.03 | <0.50 | <0.50 | <1.00 | <1.00 | <0.50 | <1.00 | <1.0 | <0.05 | <5 | | <0.03 | | <20 | <1.00 | <20 | <1 | <1 | <1 |
| D03.01 | SX_OB_20220401_04_16_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_08_08_SS_Primary_ALS | <0.05 | | <0.10 | <0.03 | <0.50 | <0.50 | <1.00 | <1.00 | <0.50 | <1.00 | <1.0 | <0.05 | <5 | | <0.03 | | <20 | <1.00 | <20 | <1 | <1 | <1 |
| D03.01 | SX_OB_20220401_08_08_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | <0.05 | <0.5 | <0.1 | <0.1 | <0.5 | <0.5 | <1 | <1 | <0.5 | <1 | <1 | | <5 | <10 | | <0.5 | <20 | | | <0.5 | <0.2 | <1 |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Primary_ALS | <0.05 | | <0.10 | <0.03 | <0.50 | <0.50 | <1.00 | <1.00 | <0.50 | <1.00 | <1.0 | <0.05 | <5 | | <0.03 | | <20 | <1.00 | <20 | <1 | <1 | <1 |
| D03.01 | SX_OB_20220401_20_08_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Duplicate_ALS | <0.05 | | <0.10 | <0.03 | <0.50 | <0.50 | <1.00 | <1.00 | <0.50 | <1.00 | <1.0 | <0.05 | <5 | | <0.03 | | <20 | <1.00 | <20 | <1 | <1 | <1 |
| D03.01 | SX_OB_20220401_20_09_SS_Duplicate_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | <0.05 | <0.5 | <0.1 | <0.1 | <0.5 | <0.5 | <1 | <1 | <0.5 | <1 | <1 | | <5 | <10 | | <0.5 | <20 | | | <0.5 | <0.2 | <1 |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_00_00_SS_Primary_ALS | <0.05 | | <0.10 | <0.03 | <0.50 | <0.50 | <1.00 | <1.00 | <0.50 | <1.00 | <1.0 | <0.05 | <5 | | <0.03 | | <20 | <1.00 | <20 | <1 | <1 | <1 |
| D03.01 | SX_OB_20220402_00_00_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | <0.05 | <0.5 | <0.1 | <0.1 | <0.5 | <0.5 | <1 | <1 | <0.5 | <1 | <1 | | <5 | <10 | | <0.5 | <20 | | | <0.5 | <0.2 | <1 |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | <0.05 | <0.5 | <0.1 | <0.1 | <0.5 | <0.5 | <1 | <1 | <0.5 | <1 | <1 | | <5 | <10 | | <0.5 | <20 | | | <0.5 | <0.2 | <1 |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | <0.05 | <0.5 | <0.1 | <0.1 | <0.5 | <0.5 | <1 | <1 | <0.5 | <1 | <1 | | <5 | <10 | | <0.5 | <20 | | | <0.5 | <0.2 | <1 |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_02_SS_Triplicate_ALS | <0.05 | | <0.10 | <0.03 | <0.50 | <0.50 | <1.00 | <1.00 | <0.50 | <1.00 | <1.0 | <0.05 | <5 | | <0.03 | | <20 | <1.00 | <20 | <1 | <1 | <1 |
| D03.01 | SX_OB_20220402_04_02_SS_Triplicate_ALS | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_07_SS_Primary_ALS | <0.05 | | <0.10 | <0.03 | <0.50 | <0.50 | <1.00 | <1.00 | <0.50 | <1.00 | <1.0 | <0.05 | <5 | | <0.03 | | <20 | <1.00 | <20 | <1 | <1 | <1 |
| D03.01 | SX_OB_20220402_04_07_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | | | | |

| | | 2,4-Dinitrophenol | 3&4-Methylphenol (m&p-cresol) | 4-Nitrophenol | Dinoseb | Phenol | Phenols (Total Halogenated) | Phenols (Total Non Halogenated) | 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | | 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | | 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | | 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | | N-Ethyl perfluorooctane sulfonamide (NEtFOSA) | | N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA) | | N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE) | | N-Methyl perfluorooctane |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L |
| EQL | | 5 | 0.4 | 5 | 20 | 0.5 | 1 | 20 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00005 | 0.01 | 0.00001 | 0.005 | 0.00005 | 0.005 | 0.00002 | 0.01 | 0.00005 | 0.005 | 0.00005 |
| EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 903842 | | | | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 903856 | | | | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 903856 | | | | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - No option for disposa | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category B Leached Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category B Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category C Leached Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category C Upper Limts | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Fill Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| **Location Code** | **Field ID** | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | <5 | <0.4 | <5 | <20 | <0.5 | <1 | <20 | | <0.005 | | <0.005 | | <0.01 | | <0.005 | | <0.005 | | <0.01 | | <0.005 | |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | | | | | | | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | | | | | | | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220331_08_19_SS_Primary_ALS | <5 | <1 | <5 | <20 | <1 | | | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00005 | <0.0100 | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00005 | <0.0100 | <0.00005 | <0.0050 | <0.00005 |
| D03.01 | SX_OB_20220331_08_19_SS_Primary_ALS | | | | | | | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | <5 | <0.4 | <5 | <20 | <0.5 | <1 | <20 | | <0.005 | | <0.005 | | <0.01 | | <0.005 | | <0.005 | | <0.01 | | <0.005 | |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | | | | | | | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | | | | | | | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220331_21_06_SS_Primary_ALS | <5 | <1 | <5 | <20 | <1 | | | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00005 | <0.0100 | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00005 | <0.0100 | <0.00005 | <0.0050 | <0.00005 |
| D03.01 | SX_OB_20220331_21_06_SS_Primary_ALS | | | | | | | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220401_00_08_SS_Primary_ALS | <5 | <1 | <5 | <20 | <1 | | | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00005 | <0.0100 | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00005 | <0.0100 | <0.00005 | <0.0050 | <0.00005 |
| D03.01 | SX_OB_20220401_00_08_SS_Primary_ALS | | | | | | | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | <5 | <0.4 | <5 | <20 | <0.5 | <1 | <20 | | <0.005 | | <0.005 | | <0.01 | | <0.005 | | <0.005 | | <0.01 | | <0.005 | |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | | | | | | | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | | | | | | | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | <5 | <0.4 | <5 | <20 | <0.5 | <1 | <20 | | <0.005 | | <0.005 | | <0.01 | | <0.005 | | <0.005 | | <0.01 | | <0.005 | |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | | | | | | | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | | | | | | | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220401_04_16_SS_Primary_ALS | <5 | <1 | <5 | <20 | <1 | | | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00005 | <0.0100 | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00005 | <0.0100 | <0.00005 | <0.0050 | <0.00005 |
| D03.01 | SX_OB_20220401_04_16_SS_Primary_ALS | | | | | | | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220401_08_08_SS_Primary_ALS | <5 | <1 | <5 | <20 | <1 | | | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00005 | <0.0100 | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00002 | <0.0100 | <0.00005 | <0.0050 | <0.00005 |
| D03.01 | SX_OB_20220401_08_08_SS_Primary_ALS | | | | | | | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | <5 | <0.4 | <5 | <20 | <0.5 | <1 | <20 | | <0.005 | | <0.005 | | <0.01 | | <0.005 | | <0.005 | | <0.01 | | <0.005 | |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | | | | | | | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | | | | | | | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220401_20_08_SS_Primary_ALS | <5 | <1 | <5 | <20 | <1 | | | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00005 | <0.0100 | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00002 | <0.0100 | <0.00005 | <0.0050 | <0.00005 |
| D03.01 | SX_OB_20220401_20_08_SS_Primary_ALS | | | | | | | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220401_20_09_SS_Duplicate_ALS | <5 | <1 | <5 | <20 | <1 | | | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00005 | <0.0100 | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00002 | <0.0100 | <0.00005 | <0.0050 | <0.00005 |
| D03.01 | SX_OB_20220401_20_09_SS_Duplicate_ALS | | | | | | | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | <5 | <0.4 | <5 | <20 | <0.5 | <1 | <20 | | <0.005 | | <0.005 | | <0.01 | | <0.005 | | <0.005 | | <0.01 | | <0.005 | |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | | | | | | | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | | | | | | | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220402_00_00_SS_Primary_ALS | <5 | <1 | <5 | <20 | <1 | | | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00005 | <0.0100 | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00002 | <0.0100 | <0.00005 | <0.0050 | <0.00005 |
| D03.01 | SX_OB_20220402_00_00_SS_Primary_ALS | | | | | | | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | <5 | <0.4 | <5 | <20 | <0.5 | <1 | <20 | | <0.005 | | <0.005 | | <0.01 | | <0.005 | | <0.005 | | <0.01 | | <0.005 | |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | | | | | | | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | | | | | | | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | <5 | <0.4 | <5 | <20 | <0.5 | <1 | <20 | | <0.005 | | <0.005 | | <0.01 | | <0.005 | | <0.005 | | <0.01 | | <0.005 | |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | | | | | | | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | | | | | | | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | <5 | <0.4 | <5 | <20 | <0.5 | <1 | <20 | | <0.005 | | <0.005 | | <0.01 | | <0.005 | | <0.005 | | <0.01 | | <0.005 | |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | | | | | | | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | | | | | | | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220402_04_02_SS_Triplicate_ALS | <5 | <1 | <5 | <20 | <1 | | | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00005 | <0.0100 | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00002 | <0.0100 | <0.00005 | <0.0050 | <0.00005 |
| D03.01 | SX_OB_20220402_04_02_SS_Triplicate_ALS | | | | | | | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220402_04_07_SS_Primary_ALS | <5 | <1 | <5 | <20 | <1 | | | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00005 | <0.0100 | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00002 | <0.0100 | <0.00005 | <0.0050 | <0.00005 |
| D03.01 | SX_OB_20220402_04_07_SS_Primary_ALS | | | | | | | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 |

| | | sulfonamide (NMeFOSA) | N-methylperfluorooctane sulfonamidoacetic acid (NMeFOSAA) | | N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE) | | Perfluorobutanoic acid (PFBA) | | Perfluorobutane sulfonic acid (PFBS) | | Perfluorodecanoic acid (PFDA) | | Perfluorododecanoic acid (PFDoDA) | | Perfluorodecanesulfonic acid (PFDS) | | Perfluoroheptanoic acid (PFHpA) | | Perfluoroheptane sulfonic acid (PFHpS) | | Perfluorohexanoic acid (PFHxA) PFOS/PFOA | | Perfluorononanoic acid |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L |
| EQL | | 0.005 | 0.00002 | 0.01 | 0.00005 | 0.005 | 0.00005 | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00001 |
| EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 903842 | | | | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 903856 | | | | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 903856 | | | | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - No option for disposa | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category B Leached Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category B Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category C Leached Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category C Upper Limts | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Fill Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| **Location Code** | **Field ID** | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | <0.005 | | <0.01 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220331_08_19_SS_Primary_ALS | <0.0050 | <0.00005 | <0.0100 | <0.00005 | <0.0050 | <0.0001 | <0.005 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 |
| D03.01 | SX_OB_20220331_08_19_SS_Primary_ALS | | <0.00005 | | <0.00005 | | <0.0001 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | <0.005 | | <0.01 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220331_21_06_SS_Primary_ALS | <0.0050 | <0.00005 | <0.0100 | <0.00005 | <0.0050 | <0.0001 | <0.005 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 |
| D03.01 | SX_OB_20220331_21_06_SS_Primary_ALS | | <0.00005 | | <0.00005 | | <0.0001 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 |
| D03.01 | SX_OB_20220401_00_08_SS_Primary_ALS | <0.0050 | <0.00005 | <0.0100 | <0.00005 | <0.0050 | <0.0001 | <0.005 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 |
| D03.01 | SX_OB_20220401_00_08_SS_Primary_ALS | | <0.00005 | | <0.00005 | | <0.0001 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | <0.005 | | <0.01 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | <0.005 | | <0.01 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220401_04_16_SS_Primary_ALS | <0.0050 | <0.00005 | <0.0100 | <0.00005 | <0.0050 | <0.0001 | <0.005 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 |
| D03.01 | SX_OB_20220401_04_16_SS_Primary_ALS | | <0.00005 | | <0.00005 | | <0.0001 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 |
| D03.01 | SX_OB_20220401_08_08_SS_Primary_ALS | <0.0050 | <0.00002 | <0.0100 | <0.00005 | <0.0050 | <0.0001 | <0.005 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 |
| D03.01 | SX_OB_20220401_08_08_SS_Primary_ALS | | <0.00005 | | <0.00005 | | <0.0001 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | <0.005 | | <0.01 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220401_20_08_SS_Primary_ALS | <0.0050 | <0.00002 | <0.0100 | <0.00005 | <0.0050 | <0.0001 | <0.005 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 |
| D03.01 | SX_OB_20220401_20_08_SS_Primary_ALS | | <0.00005 | | <0.00005 | | <0.0001 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 |
| D03.01 | SX_OB_20220401_20_09_SS_Duplicate_ALS | <0.0050 | <0.00002 | <0.0100 | <0.00005 | <0.0050 | <0.0001 | <0.005 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 |
| D03.01 | SX_OB_20220401_20_09_SS_Duplicate_ALS | | <0.00005 | | <0.00005 | | <0.0001 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | <0.005 | | <0.01 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220402_00_00_SS_Primary_ALS | <0.0050 | <0.00002 | <0.0100 | <0.00005 | <0.0050 | <0.0001 | <0.005 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 |
| D03.01 | SX_OB_20220402_00_00_SS_Primary_ALS | | <0.00005 | | <0.00005 | | <0.0001 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | <0.005 | | <0.01 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | <0.005 | | <0.01 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | <0.005 | | <0.01 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220402_04_02_SS_Triplicate_ALS | <0.0050 | <0.00002 | <0.0100 | <0.00005 | <0.0050 | <0.0001 | <0.005 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 |
| D03.01 | SX_OB_20220402_04_02_SS_Triplicate_ALS | | <0.00005 | | <0.00005 | | <0.0001 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 |
| D03.01 | SX_OB_20220402_04_07_SS_Primary_ALS | <0.0050 | <0.00002 | <0.0100 | <0.00005 | <0.0050 | <0.0001 | <0.005 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 |
| D03.01 | SX_OB_20220402_04_07_SS_Primary_ALS | | <0.00005 | | <0.00005 | | <0.0001 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 |

| Location Code | Field ID | (PFNA) | Perfluorononanesulfonic acid (PFNS)(trace) | | Perfluorooctanoic acid (PFOA) | | Perfluorooctane sulfonamide (PFOSA) | | Perfluoropentanoic acid (PFPeA) | | Perfluoropentane sulfonic acid (PFPeS) | | Perfluoropropanesulfonic acid (PFPrS) | | Perfluorotetradecanoic acid (PFTeDA) | | Perfluorotridecanoic acid (PFTrDA) | | Perfluoroundecanoic acid (PFUnDA) | | Perfluorooctanesulfonic acid (PFOS) | | Perfluorohexane sulfonic |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L |
| EQL | | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00002 | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00001 |
| EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 903842 | | | | | 0 | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 903856 | | | | | 0.00056 | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 903856 | | | | | 0.0056 | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - No option for disposa | | | | | 0.056 | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category B Leached Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category B Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category C Leached Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category C Upper Limts | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Fill Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| **Location Code** | **Field ID** | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220331_08_19_SS_Primary_ALS | <0.0050 | | | <0.00001 | <0.0050 | <0.00005 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | | | <0.00005 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00001 | <0.0050 | <0.00001 |
| D03.01 | SX_OB_20220331_08_19_SS_Primary_ALS | | | | <0.00001 | | <0.00005 | | <0.00002 | | <0.00002 | | | | <0.00005 | | <0.00002 | | <0.00002 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220331_21_06_SS_Primary_ALS | <0.0050 | | | <0.00001 | <0.0050 | <0.00005 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | | | <0.00005 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00001 | <0.0050 | <0.00001 |
| D03.01 | SX_OB_20220331_21_06_SS_Primary_ALS | | | | <0.00001 | | <0.00005 | | <0.00002 | | <0.00002 | | | | <0.00005 | | <0.00002 | | <0.00002 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220401_00_08_SS_Primary_ALS | <0.0050 | | | <0.00001 | <0.0050 | <0.00005 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | | | <0.00005 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00001 | <0.0050 | <0.00001 |
| D03.01 | SX_OB_20220401_00_08_SS_Primary_ALS | | | | <0.00001 | | <0.00005 | | <0.00002 | | <0.00002 | | | | <0.00005 | | <0.00002 | | <0.00002 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220401_04_16_SS_Primary_ALS | <0.0050 | | | <0.00001 | <0.0050 | <0.00005 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | | | <0.00005 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00001 | <0.0050 | <0.00001 |
| D03.01 | SX_OB_20220401_04_16_SS_Primary_ALS | | | | <0.00001 | | <0.00005 | | <0.00002 | | <0.00002 | | | | <0.00005 | | <0.00002 | | <0.00002 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220401_08_08_SS_Primary_ALS | <0.0050 | | | <0.00001 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | | | <0.00005 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00001 | <0.0050 | <0.00001 |
| D03.01 | SX_OB_20220401_08_08_SS_Primary_ALS | | | | <0.00001 | | <0.00005 | | <0.00002 | | <0.00002 | | | | <0.00005 | | <0.00002 | | <0.00002 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220401_20_08_SS_Primary_ALS | <0.0050 | | | <0.00001 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | | | <0.00005 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00001 | <0.0050 | <0.00001 |
| D03.01 | SX_OB_20220401_20_08_SS_Primary_ALS | | | | <0.00001 | | <0.00005 | | <0.00002 | | <0.00002 | | | | <0.00005 | | <0.00002 | | <0.00002 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220401_20_09_SS_Duplicate_ALS | <0.0050 | | | <0.00001 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | | | <0.00005 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00001 | <0.0050 | <0.00001 |
| D03.01 | SX_OB_20220401_20_09_SS_Duplicate_ALS | | | | <0.00001 | | <0.00005 | | <0.00002 | | <0.00002 | | | | <0.00005 | | <0.00002 | | <0.00002 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220402_00_00_SS_Primary_ALS | <0.0050 | | | <0.00001 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | | | <0.00005 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00001 | <0.0050 | <0.00001 |
| D03.01 | SX_OB_20220402_00_00_SS_Primary_ALS | | | | <0.00001 | | <0.00005 | | <0.00002 | | <0.00002 | | | | <0.00005 | | <0.00002 | | <0.00002 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220402_04_02_SS_Triplicate_ALS | <0.0050 | | | <0.00001 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | | | <0.00005 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00001 | <0.0050 | <0.00001 |
| D03.01 | SX_OB_20220402_04_02_SS_Triplicate_ALS | | | | <0.00001 | | <0.00005 | | <0.00002 | | <0.00002 | | | | <0.00005 | | <0.00002 | | <0.00002 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220402_04_07_SS_Primary_ALS | <0.0050 | | | <0.00001 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | | | <0.00005 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00001 | <0.0050 | <0.00001 |
| D03.01 | SX_OB_20220402_04_07_SS_Primary_ALS | | | | <0.00001 | | <0.00005 | | <0.00002 | | <0.00002 | | | | <0.00005 | | <0.00002 | | <0.00002 | | <0.00001 | | <0.00001 |

| | | acid (PFHxS) | Sum of PFHxS and PFOS | | Sum of US EPA PFAS (PFOS + PFOA)* | | Sum of enHealth PFAS (PFHxS + PFOS + PFOA)* | | Sum of PFAS | Sum of PFAS | 1,1-dichloroethane | 1,1-dichloroethene | 1,2,3-trichloropropane | 1,2-dichloroethane | 1,2-dichloropropane | 1,3-dichloropropane | Bromochloromethane | 1,1,1,2-tetrachloroethane | Bromodichloromethane | 1,1,1-trichloroethane | Chloroform | 1,1,2,2-tetrachloroethane | Chloromethane |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| EQL | | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.05 | 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 |
| EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 903842 | | | 0 | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 903856 | | | 0.00007 | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 903856 | | | 0.0007 | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - No option for disposa | | | 0.007 | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category B Leached Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category B Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category C Leached Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category C Upper Limts | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Fill Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| **Location Code** | **Field ID** | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.05 | <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 |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00001 | | <0.0001 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00001 | | <0.0001 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_19_SS_Primary_ALS | <0.0050 | <0.00001 | <0.0050 | | | | | <0.00010 | <0.0500 | | <0.50 | | <0.50 | | | | <0.50 | | <0.50 | <0.50 | <0.50 | |
| D03.01 | SX_OB_20220331_08_19_SS_Primary_ALS | | <0.00001 | | | | | | <0.00010 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.05 | <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 |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00001 | | <0.0001 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00001 | | <0.0001 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_21_06_SS_Primary_ALS | <0.0050 | <0.00001 | <0.0050 | | | | | <0.00010 | <0.0500 | | <0.50 | | <0.50 | | | | <0.50 | | <0.50 | <0.50 | <0.50 | |
| D03.01 | SX_OB_20220331_21_06_SS_Primary_ALS | | <0.00001 | | | | | | <0.00010 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_00_08_SS_Primary_ALS | <0.0050 | <0.00001 | <0.0050 | | | | | <0.00010 | <0.0500 | | <0.50 | | <0.50 | | | | <0.50 | | <0.50 | <0.50 | <0.50 | |
| D03.01 | SX_OB_20220401_00_08_SS_Primary_ALS | | <0.00001 | | | | | | <0.00010 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.05 | <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 |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00001 | | <0.0001 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00001 | | <0.0001 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.05 | <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 |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00001 | | <0.0001 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00001 | | <0.0001 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_04_16_SS_Primary_ALS | <0.0050 | <0.00001 | <0.0050 | | | | | <0.00010 | <0.0500 | | <0.50 | | <0.50 | | | | <0.50 | | <0.50 | <0.50 | <0.50 | |
| D03.01 | SX_OB_20220401_04_16_SS_Primary_ALS | | <0.00001 | | | | | | <0.00010 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_08_08_SS_Primary_ALS | <0.0050 | <0.00001 | <0.0050 | | | | | <0.00001 | <0.0500 | | <0.50 | | <0.50 | | | | <0.50 | | <0.50 | <0.50 | <0.50 | |
| D03.01 | SX_OB_20220401_08_08_SS_Primary_ALS | | <0.00001 | | | | | | <0.00010 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.05 | <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 |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00001 | | <0.0001 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00001 | | <0.0001 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Primary_ALS | <0.0050 | <0.00001 | <0.0050 | | | | | <0.00001 | <0.0500 | | <0.50 | | <0.50 | | | | <0.50 | | <0.50 | <0.50 | <0.50 | |
| D03.01 | SX_OB_20220401_20_08_SS_Primary_ALS | | <0.00001 | | | | | | <0.00010 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Duplicate_ALS | <0.0050 | <0.00001 | <0.0050 | | | | | <0.00001 | <0.0500 | | <0.50 | | <0.50 | | | | <0.50 | | <0.50 | <0.50 | <0.50 | |
| D03.01 | SX_OB_20220401_20_09_SS_Duplicate_ALS | | <0.00001 | | | | | | <0.00010 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.05 | <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 |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | | <0.00001 | | <0.00001 | | <0.00001 | | <0.0001 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | | <0.00001 | | <0.00001 | | <0.00001 | | <0.0001 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_00_00_SS_Primary_ALS | <0.0050 | <0.00001 | <0.0050 | | | | | <0.00001 | <0.0500 | | <0.50 | | <0.50 | | | | <0.50 | | <0.50 | <0.50 | <0.50 | |
| D03.01 | SX_OB_20220402_00_00_SS_Primary_ALS | | <0.00001 | | | | | | <0.00010 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.05 | <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 |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00001 | | <0.0001 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00001 | | <0.0001 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.05 | <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 |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00001 | | <0.0001 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | | <0.00001 | | <0.00001 | | <0.00001 | | <0.0001 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.05 | <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 |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | | <0.00001 | | <0.00001 | | <0.00001 | | <0.0001 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | | <0.00001 | | <0.00001 | | <0.00001 | | <0.0001 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_02_SS_Triplicate_ALS | <0.0050 | <0.00001 | <0.0050 | | | | | <0.00001 | <0.0500 | | <0.50 | | <0.50 | | | | <0.50 | | <0.50 | <0.50 | <0.50 | |
| D03.01 | SX_OB_20220402_04_02_SS_Triplicate_ALS | | <0.00001 | | | | | | <0.00010 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_07_SS_Primary_ALS | <0.0050 | <0.00001 | <0.0050 | | | | | <0.00001 | <0.0500 | | <0.50 | | <0.50 | | | | <0.50 | | <0.50 | <0.50 | <0.50 | |
| D03.01 | SX_OB_20220402_04_07_SS_Primary_ALS | | <0.00001 | | | | | | <0.00010 | | | | | | | | | | | | | | |

| | | Chlorinated Hydrocarbons | | | | | | | | | | | | | | | | | NA | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | cis-1,3-dichloropropene | Dibromomethane | Dichloromethane | Hexachlorobutadiene | Other chlorinated hydrocarbons EPAVic | Trichloroethene | Chlorinated hydrocarbons EPAVic | cis-1,2-dichloroethene | 1,1,2-trichloroethane | trans-1,3-dichloropropene | Vinyl chloride | Bromoform | Carbon tetrachloride | Chlorodibromomethane | Chloroethane | trans-1,2-dichloroethene | Tetrachloroethene | Sum of WA DWER PFAS (n=10)* | | Moisture Content | Arochlor 1232 | Arochlor 1242 |
| | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | UG/KG | µg/L | % | mg/kg | mg/kg |
| EQL | | 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 | 0.5 | 0.5 | 0.05 | | 1 | 0.1 | 0.1 |
| EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 903842 | | | | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 903856 | | | | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 903856 | | | | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - No option for disposa | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category B Leached Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category B Upper Limits | | | | | 11 | 50 | | | | | | 4.8 | | | | | | | | | | | |
| EPA Victoria IWRG621 Category C Leached Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category C Upper Limts | | | | | 2.8 | 10 | | | | | | 1.2 | | | | | | | | | | | |
| EPA Victoria IWRG621 Fill Upper Limits | | | | | | | | 1 | | | | | | | | | | | | | | | |
| **Location Code** | **Field ID** | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | <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 | <0.5 | <0.5 | <10 | | | <0.1 | <0.1 |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | | | | | | | | | | | | | | | | | | <0.05 | | | | |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | | | | | | | | | | | | | | | | | | <0.05 | | | | |
| D03.01 | SX_OB_20220331_08_19_SS_Primary_ALS | | | <0.5 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | | <0.50 | | <0.50 | | | <0.50 | <0.50 | <10.0 | <0.05 | 29.6 | | |
| D03.01 | SX_OB_20220331_08_19_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | <0.05 | | | |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | <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 | <0.5 | <0.5 | <10 | | | <0.1 | <0.1 |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | | | | | | | | | | | | | | | | | | <0.05 | | | | |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | | | | | | | | | | | | | | | | | | <0.05 | | | | |
| D03.01 | SX_OB_20220331_21_06_SS_Primary_ALS | | | <0.5 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | | <0.50 | | <0.50 | | | <0.50 | <0.50 | <10.0 | <0.05 | 30.5 | | |
| D03.01 | SX_OB_20220331_21_06_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | <0.05 | | | |
| D03.01 | SX_OB_20220401_00_08_SS_Primary_ALS | | | <0.5 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | | <0.50 | | <0.50 | | | <0.50 | <0.50 | <10.0 | <0.05 | 28.7 | | |
| D03.01 | SX_OB_20220401_00_08_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | <0.05 | | | |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | <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 | <0.5 | <0.5 | <10 | | | <0.1 | <0.1 |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | | | | | | | | | | | | | | | | | | <0.05 | | | | |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | | | | | | | | | | | | | | | | | | <0.05 | | | | |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | <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 | <0.5 | <0.5 | <10 | | | <0.1 | <0.1 |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | | | | | | | | | | | | | | | | | | <0.05 | | | | |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | | | | | | | | | | | | | | | | | | <0.05 | | | | |
| D03.01 | SX_OB_20220401_04_16_SS_Primary_ALS | | | <0.5 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | | <0.50 | | <0.50 | | | <0.50 | <0.50 | <10.0 | <0.05 | 28.8 | | |
| D03.01 | SX_OB_20220401_04_16_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | <0.05 | | | |
| D03.01 | SX_OB_20220401_08_08_SS_Primary_ALS | | | <0.5 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | | <0.50 | | <0.50 | | | <0.50 | <0.50 | <10.0 | <0.01 | 32.2 | | |
| D03.01 | SX_OB_20220401_08_08_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | <0.05 | | | |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | <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 | <0.5 | <0.5 | <10 | | | <0.1 | <0.1 |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | | | | | | | | | | | | | | | | | | <0.05 | | | | |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | | | | | | | | | | | | | | | | | | <0.05 | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Primary_ALS | | | <0.5 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | | <0.50 | | <0.50 | | | <0.50 | <0.50 | <10.0 | <0.01 | 28.4 | | |
| D03.01 | SX_OB_20220401_20_08_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | <0.05 | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Duplicate_ALS | | | <0.5 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | | <0.50 | | <0.50 | | | <0.50 | <0.50 | <10.0 | <0.01 | 26.6 | | |
| D03.01 | SX_OB_20220401_20_09_SS_Duplicate_ALS | | | | | | | | | | | | | | | | | | | <0.05 | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | <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 | <0.5 | <0.5 | <10 | | | <0.1 | <0.1 |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | | | | | | | | | | | | | | | | | | <0.05 | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | | | | | | | | | | | | | | | | | | <0.05 | | | | |
| D03.01 | SX_OB_20220402_00_00_SS_Primary_ALS | | | <0.5 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | | <0.50 | | <0.50 | | | <0.50 | <0.50 | <10.0 | <0.01 | 30.3 | | |
| D03.01 | SX_OB_20220402_00_00_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | <0.05 | | | |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | <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 | <0.5 | <0.5 | <10 | | | <0.1 | <0.1 |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | | | | | | | | | | | | | | | | | | <0.05 | | | | |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | | | | | | | | | | | | | | | | | | <0.05 | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | <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 | <0.5 | <0.5 | <10 | | | <0.1 | <0.1 |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | | | | | | | | | | | | | | | | | | <0.05 | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | | | | | | | | | | | | | | | | | | <0.05 | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | <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 | <0.5 | <0.5 | <10 | | | <0.1 | <0.1 |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | | | | | | | | | | | | | | | | | | <0.05 | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | | | | | | | | | | | | | | | | | | <0.05 | | | | |
| D03.01 | SX_OB_20220402_04_02_SS_Triplicate_ALS | | | <0.5 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | | <0.50 | | <0.50 | | | <0.50 | <0.50 | <10.0 | <0.01 | 29.0 | | |
| D03.01 | SX_OB_20220402_04_02_SS_Triplicate_ALS | | | | | | | | | | | | | | | | | | | <0.05 | | | |
| D03.01 | SX_OB_20220402_04_07_SS_Primary_ALS | | | <0.5 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | | <0.50 | | <0.50 | | | <0.50 | <0.50 | <10.0 | <0.01 | 30.8 | | |
| D03.01 | SX_OB_20220402_04_07_SS_Primary_ALS | | | | | | | | | | | | | | | | | | | <0.05 | | | |

| | | PCBs | | | | | | Inorganics | | | | | | | | Halogenated Benzenes | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Arochlor 1248 | Arochlor 1254 | Arochlor 1221 | Arochlor 1260 | Arochlor 1016 | PCBs (Sum of total) | pH (after HCL) | pH (Final) | pH (Initial) | pH of Leaching Fluid | pH (aqueous extract) | Fluoride | Moisture Content (dried @ 103°C) | Cyanide Total | 1,2,4-trichlorobenzene | 1,2-dichlorobenzene | 1,3-dichlorobenzene | 1,4-dichlorobenzene | Bromobenzene | 4-chlorotoluene | Chlorobenzene | Iodomethane |
| | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | - | - | - | - | - | mg/kg | % | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| EQL | | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100 | 1 | 5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 903842 | | | | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 903856 | | | | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 903856 | | | | | | | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - No option for disposa | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category B Leached Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category B Upper Limits | | | | | | | | | | | | | 40,000 | | 10,000 | | | | | | | | |
| EPA Victoria IWRG621 Category C Leached Upper Limits | | | | | | | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category C Upper Limts | | | | | | | | | | | | | 10,000 | | 2,500 | | | | | | | | |
| EPA Victoria IWRG621 Fill Upper Limits | | | | | | | 2 | | | | | | 450 | | 50 | | | | | | | | |
| Location Code | Field ID | | | | | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | | | | | 8.9 | 420 | 28 | <5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | | | | | | | | 5.1 | | 5.0 | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | | | | | | | | 8.8 | | 6.2 | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_19_SS_Primary_ALS | | | | | | <0.1 | 1.4 | 4.9 | 9.3 | 5.0 | | 240 | | <5 | <0.50 | <0.50 | | <0.50 | | | <0.50 | |
| D03.01 | SX_OB_20220331_08_19_SS_Primary_ALS | | | | | | | | 8.2 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | | | | | 8.4 | 400 | 28 | <5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | | | | | | | | 5.1 | | 5.0 | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | | | | | | | | 8.9 | | 6.2 | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_21_06_SS_Primary_ALS | | | | | | <0.1 | 1.5 | 4.9 | 9.3 | 5.0 | | 150 | | <5 | <0.50 | <0.50 | | <0.50 | | | <0.50 | |
| D03.01 | SX_OB_20220331_21_06_SS_Primary_ALS | | | | | | | | 9.1 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_00_08_SS_Primary_ALS | | | | | | <0.1 | 1.5 | 4.9 | 9.1 | 5.0 | | 160 | | <5 | <0.50 | <0.50 | | <0.50 | | | <0.50 | |
| D03.01 | SX_OB_20220401_00_08_SS_Primary_ALS | | | | | | | | 9.8 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | | | | | 8.6 | 390 | 26 | <5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | | | | | | | | 5.1 | | 5.0 | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | | | | | | | | 8.9 | | 6.2 | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | | | | | 9.1 | 310 | 30 | <5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | | | | | | | | 5.1 | | 5.0 | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | | | | | | | | 8.9 | | 6.2 | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_04_16_SS_Primary_ALS | | | | | | <0.1 | 1.3 | 5.0 | 9.4 | 5.0 | | 240 | | <5 | <0.50 | <0.50 | | <0.50 | | | <0.50 | |
| D03.01 | SX_OB_20220401_04_16_SS_Primary_ALS | | | | | | | | 9.7 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_08_08_SS_Primary_ALS | | | | | | <0.1 | 1.2 | 5.0 | 9.2 | 5.0 | | 200 | | <5 | <0.50 | <0.50 | | <0.50 | | | <0.50 | |
| D03.01 | SX_OB_20220401_08_08_SS_Primary_ALS | | | | | | | | 9.2 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | | | | | 8.6 | <100 | 26 | <5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | | | | | | | | 5.2 | | 5.0 | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | | | | | | | | 9.0 | | 6.4 | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Primary_ALS | | | | | | <0.1 | 1.3 | 4.9 | 9.3 | 5.0 | | 190 | | <5 | <0.50 | <0.50 | | <0.50 | | | <0.50 | |
| D03.01 | SX_OB_20220401_20_08_SS_Primary_ALS | | | | | | | | 9.6 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Duplicate_ALS | | | | | | <0.1 | 1.9 | 4.9 | 9.4 | 5.0 | | 200 | | <5 | <0.50 | <0.50 | | <0.50 | | | <0.50 | |
| D03.01 | SX_OB_20220401_20_09_SS_Duplicate_ALS | | | | | | | | 9.4 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | | | | | 8.4 | <100 | 27 | <5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | | | | | | | | 5.2 | | 5.0 | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | | | | | | | | 8.7 | | 6.4 | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_00_00_SS_Primary_ALS | | | | | | <0.1 | 1.3 | 4.9 | 9.6 | 5.0 | | 280 | | <5 | <0.50 | <0.50 | | <0.50 | | | <0.50 | |
| D03.01 | SX_OB_20220402_00_00_SS_Primary_ALS | | | | | | | | 9.6 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | | | | | 8.5 | <100 | 28 | <5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | | | | | | | | 5.2 | | 5.0 | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | | | | | | | | 8.9 | | 6.4 | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | | | | | 8.9 | <100 | 26 | <5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | | | | | | | | 5.2 | | 5.0 | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | | | | | | | | 8.8 | | 6.4 | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | | | | | 8.5 | <100 | 28 | <5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | | | | | | | | 5.2 | | 5.0 | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | | | | | | | | 8.8 | | 6.4 | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_02_SS_Triplicate_ALS | | | | | | <0.1 | 1.3 | 5.0 | 9.5 | 5.0 | | 210 | | <5 | <0.50 | <0.50 | | <0.50 | | | <0.50 | |
| D03.01 | SX_OB_20220402_04_02_SS_Triplicate_ALS | | | | | | | | 9.5 | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_07_SS_Primary_ALS | | | | | | <0.1 | 1.2 | 4.9 | 9.3 | 5.0 | | 190 | | <5 | <0.50 | <0.50 | | <0.50 | | | <0.50 | |
| D03.01 | SX_OB_20220402_04_07_SS_Primary_ALS | | | | | | | | 9.5 | | | | | | | | | | | | | | |

| Location Code | Field ID | Halogenated Hydrocarbons | | | | MAH | | | | | | Solvents | | | | | SPOCAS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Bromomethane | 1,2-dibromoethane | Dichlorodifluoromethane | Trichlorofluoromethane | Total MAH | Monocylic aromatic hydrocarbons EPAVic | 1,3,5-trimethylbenzene | Styrene | Isopropylbenzene | 1,2,4-trimethylbenzene | 4-Methyl-2-pentanone | Acetone | Allyl chloride | Carbon disulfide | Methyl Ethyl Ketone | pH (CaCl2) |
| | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | - |
| EQL | | 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 | 0.1 |
| EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 903842 | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 903856 | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 903856 | | | | | | | | | | | | | | | | | |
| EPA PFAS Classification - Tunnel Zone - No option for disposa | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category B Leached Upper Limits | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category B Upper Limits | | | | | | | 240 | | | | | | | | | | |
| EPA Victoria IWRG621 Category C Leached Upper Limits | | | | | | | | | | | | | | | | | |
| EPA Victoria IWRG621 Category C Upper Limts | | | | | | | 70 | | | | | | | | | | |
| EPA Victoria IWRG621 Fill Upper Limits | | | | | | | 7 | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | <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 | |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_03_SS_Primary_EUF | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_08_19_SS_Primary_ALS | | | | | | <0.5 | | <0.5 | | | | | | | | 7.6 |
| D03.01 | SX_OB_20220331_08_19_SS_Primary_ALS | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | <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 | |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_21_00_SS_Primary_EUF | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220331_21_06_SS_Primary_ALS | | | | | | <0.5 | | <0.5 | | | | | | | | 7.6 |
| D03.01 | SX_OB_20220331_21_06_SS_Primary_ALS | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_00_08_SS_Primary_ALS | | | | | | <0.5 | | <0.5 | | | | | | | | 7.7 |
| D03.01 | SX_OB_20220401_00_08_SS_Primary_ALS | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | <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 | |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_00_20_SS_Primary_EUF | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | <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 | |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_04_12_SS_Primary_EUF | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_04_16_SS_Primary_ALS | | | | | | <0.5 | | <0.5 | | | | | | | | 7.6 |
| D03.01 | SX_OB_20220401_04_16_SS_Primary_ALS | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_08_08_SS_Primary_ALS | | | | | | <0.5 | | <0.5 | | | | | | | | 7.6 |
| D03.01 | SX_OB_20220401_08_08_SS_Primary_ALS | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | <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 | |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_02_SS_Primary_EUF | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Primary_ALS | | | | | | <0.5 | | <0.5 | | | | | | | | 7.7 |
| D03.01 | SX_OB_20220401_20_08_SS_Primary_ALS | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Duplicate_ALS | | | | | | <0.5 | | <0.5 | | | | | | | | 7.6 |
| D03.01 | SX_OB_20220401_20_09_SS_Duplicate_ALS | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | <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 | |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Triplicate_EUF | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_00_00_SS_Primary_ALS | | | | | | <0.5 | | <0.5 | | | | | | | | 7.8 |
| D03.01 | SX_OB_20220402_00_00_SS_Primary_ALS | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | <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 | |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_00_08_SS_Primary_EUF | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | <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 | |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Primary_EUF | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | <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 | |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Duplicate_EUF | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_02_SS_Triplicate_ALS | | | | | | <0.5 | | <0.5 | | | | | | | | 7.7 |
| D03.01 | SX_OB_20220402_04_02_SS_Triplicate_ALS | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_07_SS_Primary_ALS | | | | | | <0.5 | | <0.5 | | | | | | | | 7.7 |
| D03.01 | SX_OB_20220402_04_07_SS_Primary_ALS | | | | | | | | | | | | | | | | |

| | | | | | | | | Metals | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Arsenic | Cadmium | Copper | Chromium (III+VI) | Chromium (hexavalent) | Lead | Mercury | Molybdenum | Nickel | Selenium | Silver |
| | | | | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| EQL | | | | | | | | 2 | 0.4 | 5 | 5 | 1 | 5 | 0.1 | 5 | 5 | 2 | 2 |
| **Location Code** | **Field ID** | **Date** | **Depth** | **Lab Report Number** | **Lab Name** | **Sample Type** | **Parent Sample** | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | 29 | <1 | 56 | 100 | <1.0 | <5 | <0.1 | <5 | 174 | <5 | <2 |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886001 | 28 | 1 | 56 | 88 | <1.0 | <5 | <0.1 | <5 | 169 | <5 | <2 |
| RPD | | | | | | | | 4 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 3 | 0 | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | 29 | <1 | 56 | 100 | <1.0 | <5 | <0.1 | <5 | 174 | <5 | <2 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | 31 | <0.4 | 59 | 120 | <1 | <5 | <0.1 | <5 | 190 | <2 | <2 |
| RPD | | | | | | | | 7 | 0 | 5 | 18 | 0 | 0 | 0 | 0 | 9 | 0 | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | 29 | <1 | 56 | 100 | <1.0 | <5 | <0.1 | <5 | 174 | <5 | <2 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | 23 | <0.4 | 68 | 130 | <1 | <5 | <0.1 | <5 | 220 | <2 | <2 |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002512 | 14 | <0.4 | 55 | 110 | <1 | <5 | <0.1 | <5 | 170 | <2 | <2 |
| RPD | | | | | | | | 49 | 0 | 21 | 17 | 0 | 0 | 0 | 0 | 26 | 0 | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | 23 | <0.4 | 68 | 130 | <1 | <5 | <0.1 | <5 | 220 | <2 | <2 |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002512 | 19 | <1 | 53 | 94 | <1.0 | <5 | <0.1 | <5 | 162 | <5 | <2 |
| RPD | | | | | | | | 19 | 0 | 25 | 32 | 0 | 0 | 0 | 0 | 30 | 0 | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002519 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |

*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

| Location Code | Field ID | Date | Depth | Lab Report Number | Lab Name | Sample Type | Parent Sample | Tin | Zinc | PAHs (Vic EPA List) | Benzo(b+j+k)fluoranthene | Acenaphthene | Acenaphthylene | Anthracene | Benz(a)anthracene | Benzo(a)pyrene TEQ calc (Zero) | Benzo(a)pyrene TEQ (LOR) | Benzo(a)pyrene TEQ calc (Half) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| EQL | | | | | | | | 10 | 5 | 0.5 | 1 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <10 | 88 | <0.5 | <1.0 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886001 | <10 | 78 | <0.5 | <1.0 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 |
| RPD | | | | | | | | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <10 | 88 | <0.5 | <1.0 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | <10 | 110 | | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 |
| RPD | | | | | | | | 0 | 22 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <10 | 88 | <0.5 | <1.0 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <10 | 120 | | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002512 | <10 | 91 | | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 |
| RPD | | | | | | | | 0 | 27 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <10 | 120 | | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002512 | <10 | 70 | <0.5 | <1.0 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | 0.6 |
| RPD | | | | | | | | 0 | 53 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002519 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |

*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

| | | | | | | | | PAH | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Benzo(a) pyrene | Benzo(b+j)fluoranthene | Benzo(g,h,i)perylene | Benzo(k)fluoranthene | Chrysene | Dibenz(a,h)anthracene | Fluoranthene | Fluorene | Indeno(1,2,3-c,d)pyrene | Naphthalene | Phenanthrene |
| | | | | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| EQL | | | | | | | | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| Location Code | Field ID | Date | Depth | Lab Report Number | Lab Name | Sample Type | Parent Sample | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.5 | | <0.5 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886001 | <0.5 | | <0.5 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| RPD | | | | | | | | 0 | | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.5 | | <0.5 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| RPD | | | | | | | | 0 | | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.5 | | <0.5 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002512 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| RPD | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002512 | <0.5 | | <0.5 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| RPD | | | | | | | | 0 | | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002519 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |

***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**

| Location Code | Field ID | Date | Depth | Lab Report Number | Lab Name | Sample Type | Parent Sample | Pyrene | PAHs (Sum of total) | BTEX Benzene | BTEX Ethylbenzene | BTEX Toluene | BTEX Xylene (o) | BTEX Xylene (m & p) | BTEX Xylene Total | C6-C10 | C6-C10 (F1 minus BTEX) | C10-C16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| EQL | | | | | | | | 0.5 | 0.5 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 20 | 20 | 50 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.5 | | <0.2 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <20 | <20 | <50 |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886001 | <0.5 | | <0.2 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <20 | <20 | <50 |
| RPD | | | | | | | | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.5 | | <0.2 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <20 | <20 | <50 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | <0.5 | <0.5 | <0.1 | <0.1 | <0.1 | <0.1 | <0.2 | <0.3 | <20 | <20 | <50 |
| RPD | | | | | | | | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.5 | | <0.2 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <20 | <20 | <50 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.5 | <0.5 | <0.1 | <0.1 | <0.1 | <0.1 | <0.2 | <0.3 | <20 | <20 | <50 |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002512 | <0.5 | <0.5 | <0.1 | <0.1 | <0.1 | <0.1 | <0.2 | <0.3 | <20 | <20 | <50 |
| RPD | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.5 | <0.5 | <0.1 | <0.1 | <0.1 | <0.1 | <0.2 | <0.3 | <20 | <20 | <50 |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002512 | <0.5 | | <0.2 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <20 | <20 | <50 |
| RPD | | | | | | | | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002519 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |

*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

| | | | | | | | | TRH | | | | TPH | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | C10-C16 (F2 minus Naphthalene) | C16-C34 | C34-C40 | C10-C40 (Sum of total) | C6-C9 | C10-C14 | C15-C28 | C29-C36 | +C10-C36 (Sum of total) | Aldrin | Dieldrin |
| | | | | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| EQL | | | | | | | | 50 | 100 | 100 | 50 | 20 | 20 | 50 | 50 | 50 | 0.05 | 0.05 |
| **Location Code** | **Field ID** | **Date** | **Depth** | **Lab Report Number** | **Lab Name** | **Sample Type** | **Parent Sample** | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <50 | <100 | <100 | <50 | <20 | <50 | <100 | <100 | <50 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886001 | <50 | <100 | <100 | <50 | <20 | <50 | <100 | <100 | <50 | <0.05 | <0.05 |
| RPD | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <50 | <100 | <100 | <50 | <20 | <50 | <100 | <100 | <50 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | <50 | <100 | <100 | <100 | <20 | <20 | <50 | <50 | <50 | <0.05 | <0.05 |
| RPD | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <50 | <100 | <100 | <50 | <20 | <50 | <100 | <100 | <50 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <50 | <100 | <100 | <100 | <20 | <20 | <50 | <50 | <50 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002512 | <50 | <100 | <100 | <100 | <20 | <20 | <50 | <50 | <50 | <0.05 | <0.05 |
| RPD | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <50 | <100 | <100 | <100 | <20 | <20 | <50 | <50 | <50 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002512 | <50 | <100 | <100 | <50 | <20 | <50 | <100 | <100 | <50 | <0.05 | <0.05 |
| RPD | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002519 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |

***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**

| | | | | | | | | Orga | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Aldrin + Dieldrin | DDD | DDT | 4,4-DDE | DDT+DDE+DDD | Endosulfan I | Endosulfan II | Endrin | Endrin ketone | Endrin aldehyde | Endosulfan sulphate |
| | | | | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| EQL | | | | | | | | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 |
| **Location Code** | **Field ID** | **Date** | **Depth** | **Lab Report Number** | **Lab Name** | **Sample Type** | **Parent Sample** | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.30 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | | <0.05 | <0.05 |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886001 | <0.30 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | | <0.05 | <0.05 |
| RPD | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.30 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | | <0.05 | <0.05 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| RPD | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.30 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | | <0.05 | <0.05 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002512 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| RPD | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002512 | <0.30 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | | <0.05 | <0.05 |
| RPD | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002519 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |

*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

| | | | | | | | | hochlorine Pesticides | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | chlordane | Chlordane (cis) | Chlordane (trans) | Hexachlorobenzene | Heptachlor | Heptachlor epoxide | a-BHC | b-BHC | d-BHC | g-BHC (Lindane) | Methoxychlor |
| | | | | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| EQL | | | | | | | | 0.1 | 0.03 | 0.03 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 |
| **Location Code** | **Field ID** | **Date** | **Depth** | **Lab Report Number** | **Lab Name** | **Sample Type** | **Parent Sample** | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.10 | <0.03 | <0.03 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886001 | <0.10 | <0.03 | <0.03 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| RPD | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.10 | <0.03 | <0.03 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | <0.1 | | | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| RPD | | | | | | | | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.10 | <0.03 | <0.03 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.1 | | | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002512 | <0.1 | | | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| RPD | | | | | | | | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.1 | | | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002512 | <0.10 | <0.03 | <0.03 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| RPD | | | | | | | | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002519 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |

***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**

| Location Code | Field ID | Date | Depth | Lab Report Number | Lab Name | Sample Type | Parent Sample | Toxaphene | Organochlorine pesticides EPAVic | Other organochlorine pesticides EPAVic | 2-Chlorophenol | 2,4-Dichlorophenol | 2,4,5-Trichlorophenol | 2,4,6-Trichlorophenol | 2,6-Dichlorophenol | 4-chloro-3-methylphenol | Pentachlorophenol | 2,3,4,5 & 2,3,4,6-Tetrachlorophenol |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| EQL | | | | | | | | 0.5 | 0.1 | 0.03 | 0.5 | 0.5 | 1 | 1 | 0.5 | 1 | 1 | 0.05 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | <0.10 | <0.03 | <0.50 | <0.50 | <1.00 | <1.00 | <0.50 | <1.00 | <1.0 | <0.05 |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886001 | | <0.10 | <0.03 | <0.50 | <0.50 | <1.00 | <1.00 | <0.50 | <1.00 | <1.0 | <0.05 |
| RPD | | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | <0.10 | <0.03 | <0.50 | <0.50 | <1.00 | <1.00 | <0.50 | <1.00 | <1.0 | <0.05 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | <0.5 | <0.1 | <0.1 | <0.5 | <0.5 | <1 | <1 | <0.5 | <1 | <1 | |
| RPD | | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | <0.10 | <0.03 | <0.50 | <0.50 | <1.00 | <1.00 | <0.50 | <1.00 | <1.0 | <0.05 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.5 | <0.1 | <0.1 | <0.5 | <0.5 | <1 | <1 | <0.5 | <1 | <1 | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002512 | <0.5 | <0.1 | <0.1 | <0.5 | <0.5 | <1 | <1 | <0.5 | <1 | <1 | |
| RPD | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.5 | <0.1 | <0.1 | <0.5 | <0.5 | <1 | <1 | <0.5 | <1 | <1 | |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002512 | | <0.10 | <0.03 | <0.50 | <0.50 | <1.00 | <1.00 | <0.50 | <1.00 | <1.0 | <0.05 |
| RPD | | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002519 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |

*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

| Location Code | Field ID | Date | Depth | Lab Report Number | Lab Name | Sample Type | Parent Sample | Phenols: 4,6-Dinitro-2-methylphenol | Tetrachlorophenols | 2,3,5,6-Tetrachlorophenol | Cresol Total | 4,6-Dinitro-o-cyclohexyl phenol | Phenols (halogenated) EPAVic | Phenols (non-halogenated) EPAVic | 2,4-Dimethylphenol | 2-Methylphenol | 2-Nitrophenol | 2,4-Dinitrophenol |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| EQL | | | | | | | | 5 | 10 | 0.03 | 0.5 | 20 | 1 | 20 | 0.5 | 0.2 | 1 | 5 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <5 | | <0.03 | | <20 | <1.00 | <20 | <1 | <1 | <1 | <5 |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886001 | <5 | | <0.03 | | <20 | <1.00 | <20 | <1 | <1 | <1 | <5 |
| RPD | | | | | | | | 0 | | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <5 | | <0.03 | | <20 | <1.00 | <20 | <1 | <1 | <1 | <5 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | <5 | <10 | | <0.5 | <20 | | | <0.5 | <0.2 | <1 | <5 |
| RPD | | | | | | | | 0 | | | | 0 | | | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <5 | | <0.03 | | <20 | <1.00 | <20 | <1 | <1 | <1 | <5 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <5 | <10 | | <0.5 | <20 | | | <0.5 | <0.2 | <1 | <5 |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002512 | <5 | <10 | | <0.5 | <20 | | | <0.5 | <0.2 | <1 | <5 |
| RPD | | | | | | | | 0 | 0 | | 0 | 0 | | | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <5 | <10 | | <0.5 | <20 | | | <0.5 | <0.2 | <1 | <5 |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002512 | <5 | | <0.03 | | <20 | <1.00 | <20 | <1 | <1 | <1 | <5 |
| RPD | | | | | | | | 0 | | | | 0 | | | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002519 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |

*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

| | | | | | | | | 3&4-Methylphenol (m&p-cresol) | 4-Nitrophenol | Dinoseb | Phenol | Phenols (Total Halogenated) | Phenols (Total Non Halogenated) | 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | | 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | | 6:2 Fluorotelomer sulfonic |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L |
| EQL | | | | | | | | 0.4 | 5 | 20 | 0.5 | 1 | 20 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00005 |

| Location Code | Field ID | Date | Depth | Lab Report Number | Lab Name | Sample Type | Parent Sample | 3&4-Methylphenol (m&p-cresol) | 4-Nitrophenol | Dinoseb | Phenol | Phenols (Total Halogenated) | Phenols (Total Non Halogenated) | 10:2 FTS (mg/L) | 10:2 FTS (mg/kg) | 8:2 FTS (mg/L) | 8:2 FTS (mg/kg) | 6:2 Fluorotelomer sulfonic (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <1 | <5 | <20 | <1 | | | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00005 |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886001 | <1 | <5 | <20 | <1 | | | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00005 |
| RPD | | | | | | | | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <1 | <5 | <20 | <1 | | | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00005 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | <0.4 | <5 | <20 | <0.5 | <1 | <20 | | <0.005 | | <0.005 | |
| RPD | | | | | | | | 0 | 0 | 0 | 0 | | | | 0 | | 0 | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <1 | <5 | <20 | <1 | | | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00005 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | | | | | | | <0.00001 | | <0.00001 | | <0.00005 |
| RPD | | | | | | | | | | | | | | 0 | | 0 | | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886009 | | | | | | | <0.00005 | | <0.00005 | | <0.00005 |
| RPD | | | | | | | | | | | | | | 0 | | 0 | | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | <0.00005 | | <0.00005 | | <0.00005 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886009 | | | | | | | <0.00001 | | <0.00001 | | <0.00005 |
| RPD | | | | | | | | | | | | | | 0 | | 0 | | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.4 | <5 | <20 | <0.5 | <1 | <20 | | <0.005 | | <0.005 | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002512 | <0.4 | <5 | <20 | <0.5 | <1 | <20 | | <0.005 | | <0.005 | |
| RPD | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | | 0 | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.4 | <5 | <20 | <0.5 | <1 | <20 | | <0.005 | | <0.005 | |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002512 | <1 | <5 | <20 | <1 | | | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00005 |
| RPD | | | | | | | | 0 | 0 | 0 | 0 | | | | 0 | | 0 | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | <0.00001 | | <0.00001 | | <0.00005 |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002519 | | | | | | | <0.00001 | | <0.00001 | | <0.00005 |
| RPD | | | | | | | | | | | | | | 0 | | 0 | | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | <0.00001 | | <0.00001 | | <0.00005 |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002524 | | | | | | | <0.00001 | | <0.00001 | | <0.00005 |
| RPD | | | | | | | | | | | | | | 0 | | 0 | | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | <0.00001 | | <0.00001 | | <0.00005 |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002524 | | | | | | | <0.00005 | | <0.00005 | | <0.00005 |
| RPD | | | | | | | | | | | | | | 0 | | 0 | | 0 |

*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

| | | | | | | | | acid (6:2 FTS) | 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | | N-Ethyl perfluorooctane sulfonamide (NEtFOSA) | | N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA) | | N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE) | | N-Methyl perfluorooctane sulfonamide (NMeFOSA) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg |
| EQL | | | | | | | | 0.01 | 0.00001 | 0.005 | 0.00005 | 0.005 | 0.00002 | 0.01 | 0.00005 | 0.005 | 0.00005 | 0.005 |
| **Location Code** | **Field ID** | **Date** | **Depth** | **Lab Report Number** | **Lab Name** | **Sample Type** | **Parent Sample** | | | | | | | | | | | |
| **D03.01** | **SX_OB_20220401_20_08_SS_Pr** | **1/04/2022** | | **EM2205886** | **ALSE-Melbourne** | **Normal** | | <0.0100 | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00002 | <0.0100 | <0.00005 | <0.0050 | <0.00005 | <0.0050 |
| **D03.01** | **SX_OB_20220401_20_09_SS_Du** | **1/04/2022** | | **EM2205886** | **ALSE-Melbourne** | **Field_D** | **EM2205886001** | <0.0100 | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00002 | <0.0100 | <0.00005 | <0.0050 | <0.00005 | <0.0050 |
| **RPD** | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **D03.01** | **SX_OB_20220401_20_08_SS_Pr** | **1/04/2022** | | **EM2205886** | **ALSE-Melbourne** | **Normal** | | <0.0100 | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00002 | <0.0100 | <0.00005 | <0.0050 | <0.00005 | <0.0050 |
| **D03.01** | **SX_OB_20220401_20_10_SS_Tr** | **1/04/2022** | | **876688** | **MGT** | **Interlab_D** | **EM2205886001** | <0.01 | | <0.005 | | <0.005 | | <0.01 | | <0.005 | | <0.005 |
| **RPD** | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |
| **D03.01** | **SX_OB_20220401_20_08_SS_Pr** | **1/04/2022** | | **EM2205886** | **ALSE-Melbourne** | **Normal** | | <0.0100 | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00002 | <0.0100 | <0.00005 | <0.0050 | <0.00005 | <0.0050 |
| **D03.01** | **SX_OB_20220401_20_10_SS_Tr** | **1/04/2022** | | **876688** | **MGT** | **Interlab_D** | **EM2205886001** | | <0.00001 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | |
| **RPD** | | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | |
| **D03.01** | **SX_OB_20220401_20_08_SS_Pr** | **1/04/2022** | | **EM2205886** | **ALSE-Melbourne** | **Normal** | | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | |
| **D03.01** | **SX_OB_20220401_20_09_SS_Du** | **1/04/2022** | | **EM2205886** | **ALSE-Melbourne** | **Field_D** | **EM2205886009** | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | |
| **RPD** | | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | |
| **D03.01** | **SX_OB_20220401_20_08_SS_Pr** | **1/04/2022** | | **EM2205886** | **ALSE-Melbourne** | **Normal** | | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | |
| **D03.01** | **SX_OB_20220401_20_10_SS_Tr** | **1/04/2022** | | **876688** | **MGT** | **Interlab_D** | **EM2205886009** | | <0.00001 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | |
| **RPD** | | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | |
| **D03.01** | **SX_OB_20220402_03_59_SS_Pr** | **2/04/2022** | | **876688** | **MGT** | **Normal** | | <0.01 | | <0.005 | | <0.005 | | <0.01 | | <0.005 | | <0.005 |
| **D03.01** | **SX_OB_20220402_04_00_SS_Du** | **2/04/2022** | | **876688** | **MGT** | **Field_D** | **M22-Ap0002512** | <0.01 | | <0.005 | | <0.005 | | <0.01 | | <0.005 | | <0.005 |
| **RPD** | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |
| **D03.01** | **SX_OB_20220402_03_59_SS_Pr** | **2/04/2022** | | **876688** | **MGT** | **Normal** | | <0.01 | | <0.005 | | <0.005 | | <0.01 | | <0.005 | | <0.005 |
| **D03.01** | **SX_OB_20220402_04_02_SS_Tr** | **2/04/2022** | | **EM2205886** | **ALSE-Melbourne** | **Interlab_D** | **M22-Ap0002512** | <0.0100 | <0.00005 | <0.0050 | <0.00005 | <0.0050 | <0.00002 | <0.0100 | <0.00005 | <0.0050 | <0.00005 | <0.0050 |
| **RPD** | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |
| **D03.01** | **SX_OB_20220402_03_59_SS_Pr** | **2/04/2022** | | **876688** | **MGT** | **Normal** | | | <0.00001 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | |
| **D03.01** | **SX_OB_20220402_04_00_SS_Du** | **2/04/2022** | | **876688** | **MGT** | **Field_D** | **M22-Ap0002519** | | <0.00001 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | |
| **RPD** | | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | |
| **D03.01** | **SX_OB_20220402_03_59_SS_Pr** | **2/04/2022** | | **876688** | **MGT** | **Normal** | | | <0.00001 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | |
| **D03.01** | **SX_OB_20220402_04_00_SS_Du** | **2/04/2022** | | **876688** | **MGT** | **Field_D** | **M22-Ap0002524** | | <0.00001 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | |
| **RPD** | | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | |
| **D03.01** | **SX_OB_20220402_03_59_SS_Pr** | **2/04/2022** | | **876688** | **MGT** | **Normal** | | | <0.00001 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | |
| **D03.01** | **SX_OB_20220402_04_02_SS_Tr** | **2/04/2022** | | **EM2205886** | **ALSE-Melbourne** | **Interlab_D** | **M22-Ap0002524** | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00005 | |
| **RPD** | | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | |

***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**

| | | | | | | | | N-methylperfluorooctane sulfonamidoacetic acid (NMeFOSAA) | | N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE) | | Perfluorobutanoic acid (PFBA) | | Perfluorobutane sulfonic acid (PFBS) | | Perfluorodecanoic acid (PFDA) | | Perfluorododecanoic acid |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L |
| EQL | | | | | | | | 0.00002 | 0.01 | 0.00005 | 0.005 | 0.00005 | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00001 |
| Location Code | Field ID | Date | Depth | Lab Report Number | Lab Name | Sample Type | Parent Sample | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.00002 | <0.0100 | <0.00005 | <0.0050 | <0.0001 | <0.005 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886001 | <0.00002 | <0.0100 | <0.00005 | <0.0050 | <0.0001 | <0.005 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 |
| RPD | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.00002 | <0.0100 | <0.00005 | <0.0050 | <0.0001 | <0.005 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | | <0.01 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| RPD | | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.00002 | <0.0100 | <0.00005 | <0.0050 | <0.0001 | <0.005 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | <0.00005 | | <0.00005 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 |
| RPD | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.00005 | | <0.00005 | | <0.0001 | | <0.00002 | | <0.00002 | | <0.00002 |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886009 | <0.00005 | | <0.00005 | | <0.0001 | | <0.00002 | | <0.00002 | | <0.00002 |
| RPD | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.00005 | | <0.00005 | | <0.0001 | | <0.00002 | | <0.00002 | | <0.00002 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886009 | <0.00005 | | <0.00005 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 |
| RPD | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | <0.01 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002512 | | <0.01 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| RPD | | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | <0.01 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002512 | <0.00002 | <0.0100 | <0.00005 | <0.0050 | <0.0001 | <0.005 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 |
| RPD | | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002519 | <0.00005 | | <0.00005 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 |
| RPD | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002524 | <0.00005 | | <0.00005 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 |
| RPD | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.00005 | | <0.00005 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002524 | <0.00005 | | <0.00005 | | <0.0001 | | <0.00002 | | <0.00002 | | <0.00002 |
| RPD | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |

*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

| | | | | | | | | PFOS/PFOA | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | (PFDoDA) | Perfluorodecanesulfonic acid (PFDS) | | Perfluoroheptanoic acid (PFHpA) | | Perfluoroheptane sulfonic acid (PFHpS) | | Perfluorohexanoic acid (PFHxA) | | Perfluorononanoic acid (PFNA) | |
| | | | | | | | | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg |
| EQL | | | | | | | | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 |
| Location Code | Field ID | Date | Depth | Lab Report Number | Lab Name | Sample Type | Parent Sample | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886001 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 |
| RPD | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 |
| RPD | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | |
| RPD | | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886009 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | |
| RPD | | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886009 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | |
| RPD | | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002512 | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 |
| RPD | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002512 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 |
| RPD | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002519 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | |
| RPD | | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002524 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | |
| RPD | | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002524 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | | <0.00002 | |
| RPD | | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | |

*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

| | | | | | | | | Perfluorononanesulfonic acid (PFNS)(trace) | | Perfluorooctanoic acid (PFOA) | | Perfluorooctane sulfonamide (PFOSA) | | Perfluoropentanoic acid (PFPeA) | | Perfluoropentane sulfonic acid (PFPeS) | | Perfluoropropanesulfonic |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L |
| EQL | | | | | | | | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00002 | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00001 |
| **Location Code** | **Field ID** | **Date** | **Depth** | **Lab Report Number** | **Lab Name** | **Sample Type** | **Parent Sample** | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | <0.00001 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886001 | | | <0.00001 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | |
| RPD | | | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | <0.00001 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| RPD | | | | | | | | | | | 0 | | 0 | | 0 | | 0 | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | <0.00001 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 |
| RPD | | | | | | | | | | 0 | | 0 | | 0 | | 0 | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | <0.00001 | | <0.00005 | | <0.00002 | | <0.00002 | | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886009 | | | <0.00001 | | <0.00005 | | <0.00002 | | <0.00002 | | |
| RPD | | | | | | | | | | 0 | | 0 | | 0 | | 0 | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | <0.00001 | | <0.00005 | | <0.00002 | | <0.00002 | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886009 | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 |
| RPD | | | | | | | | | | 0 | | 0 | | 0 | | 0 | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002512 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| RPD | | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002512 | | | <0.00001 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | |
| RPD | | | | | | | | | | | 0 | | 0 | | 0 | | 0 | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002519 | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 |
| RPD | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002524 | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 |
| RPD | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.00001 | | <0.00001 | | <0.00005 | | <0.00001 | | <0.00001 | | <0.00001 |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002524 | | | <0.00001 | | <0.00005 | | <0.00002 | | <0.00002 | | |
| RPD | | | | | | | | | | 0 | | 0 | | 0 | | 0 | | |

*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

| | | | | | | | | acid (PFPrS) | Perfluorotetradecanoic acid (PFTeDA) | | Perfluorotridecanoic acid (PFTrDA) | | Perfluoroundecanoic acid (PFUnDA) | | Perfluorooctanesulfonic acid (PFOS) | | Perfluorohexane sulfonic acid (PFHxS) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg |
| EQL | | | | | | | | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 |
| **Location Code** | **Field ID** | **Date** | **Depth** | **Lab Report Number** | **Lab Name** | **Sample Type** | **Parent Sample** | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | <0.00005 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00001 | <0.0050 | <0.00001 | <0.0050 |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886001 | | <0.00005 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00001 | <0.0050 | <0.00001 | <0.0050 |
| RPD | | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | <0.00005 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00001 | <0.0050 | <0.00001 | <0.0050 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 |
| RPD | | | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | <0.00005 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00001 | <0.0050 | <0.00001 | <0.0050 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | |
| RPD | | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | <0.00005 | | <0.00002 | | <0.00002 | | <0.00001 | | <0.00001 | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886009 | | <0.00005 | | <0.00002 | | <0.00002 | | <0.00001 | | <0.00001 | |
| RPD | | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | <0.00005 | | <0.00002 | | <0.00002 | | <0.00001 | | <0.00001 | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886009 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | |
| RPD | | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002512 | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 |
| RPD | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 | | <0.005 |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002512 | | <0.00005 | <0.0050 | <0.00002 | <0.0050 | <0.00002 | <0.0050 | <0.00001 | <0.0050 | <0.00001 | <0.0050 |
| RPD | | | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002519 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | |
| RPD | | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002524 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | |
| RPD | | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | | <0.00001 | |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002524 | | <0.00005 | | <0.00002 | | <0.00002 | | <0.00001 | | <0.00001 | |
| RPD | | | | | | | | | 0 | | 0 | | 0 | | 0 | | 0 | |

***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**

| | | | | | | | | Sum of PFHxS and PFOS | | Sum of US EPA PFAS (PFOS + PFOA)* | | Sum of enHealth PFAS (PFHxS + PFOS + PFOA)* | | Sum of PFAS | Sum of PFAS | 1,1-dichloroethane | 1,1-dichloroethene | 1,2,3-trichloropropane |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/L | mg/kg | mg/kg | mg/kg | mg/kg |
| EQL | | | | | | | | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.005 | 0.00001 | 0.05 | 0.5 | 0.5 | 0.5 |
| **Location Code** | **Field ID** | **Date** | **Depth** | **Lab Report Number** | **Lab Name** | **Sample Type** | **Parent Sample** | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.00001 | <0.0050 | | | | | <0.00001 | <0.0500 | | <0.50 | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886001 | <0.00001 | <0.0050 | | | | | <0.00001 | <0.0500 | | <0.50 | |
| RPD | | | | | | | | 0 | 0 | | | | | 0 | 0 | | 0 | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.00001 | <0.0050 | | | | | <0.00001 | <0.0500 | | <0.50 | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | | <0.005 | | <0.005 | | <0.005 | | <0.05 | <0.5 | <0.5 | <0.5 |
| RPD | | | | | | | | | 0 | | | | | | 0 | | 0 | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.00001 | <0.0050 | | | | | <0.00001 | <0.0500 | | <0.50 | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | <0.00001 | | <0.00001 | | <0.00001 | | <0.0001 | | | | |
| RPD | | | | | | | | 0 | | | | | | 0 | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.00001 | | | | | | <0.00010 | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886009 | <0.00001 | | | | | | <0.00010 | | | | |
| RPD | | | | | | | | 0 | | | | | | 0 | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.00001 | | | | | | <0.00010 | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886009 | <0.00001 | | <0.00001 | | <0.00001 | | <0.0001 | | | | |
| RPD | | | | | | | | 0 | | | | | | 0 | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | <0.005 | | <0.005 | | <0.005 | | <0.05 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002512 | | <0.005 | | <0.005 | | <0.005 | | <0.05 | <0.5 | <0.5 | <0.5 |
| RPD | | | | | | | | | 0 | | 0 | | 0 | | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | <0.005 | | <0.005 | | <0.005 | | <0.05 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002512 | <0.00001 | <0.0050 | | | | | <0.00001 | <0.0500 | | <0.50 | |
| RPD | | | | | | | | | 0 | | | | | | 0 | | 0 | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.00001 | | <0.00001 | | <0.00001 | | <0.0001 | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002519 | <0.00001 | | <0.00001 | | <0.00001 | | <0.0001 | | | | |
| RPD | | | | | | | | 0 | | 0 | | 0 | | 0 | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.00001 | | <0.00001 | | <0.00001 | | <0.0001 | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002524 | <0.00001 | | <0.00001 | | <0.00001 | | <0.0001 | | | | |
| RPD | | | | | | | | 0 | | 0 | | 0 | | 0 | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.00001 | | <0.00001 | | <0.00001 | | <0.0001 | | | | |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002524 | <0.00001 | | | | | | <0.00010 | | | | |
| RPD | | | | | | | | 0 | | | | | | 0 | | | | |

***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**

| Location Code | Field ID | Date | Depth | Lab Report Number | Lab Name | Sample Type | Parent Sample | 1,2-dichloroethane | 1,2-dichloropropane | 1,3-dichloropropane | Bromochloromethane | 1,1,1,2-tetrachloroethane | Bromodichloromethane | 1,1,1-trichloroethane | Chloroform | 1,1,2,2-tetrachloroethane | Chloromethane | cis-1,3-dichloropropene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| EQL | | | | | | | | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.50 | | | | <0.50 | | <0.50 | <0.50 | <0.50 | | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886001 | <0.50 | | | | <0.50 | | <0.50 | <0.50 | <0.50 | | |
| RPD | | | | | | | | 0 | | | | 0 | | 0 | 0 | 0 | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.50 | | | | <0.50 | | <0.50 | <0.50 | <0.50 | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| RPD | | | | | | | | 0 | | | | 0 | | 0 | 0 | 0 | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.50 | | | | <0.50 | | <0.50 | <0.50 | <0.50 | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002512 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| RPD | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002512 | <0.50 | | | | <0.50 | | <0.50 | <0.50 | <0.50 | | |
| RPD | | | | | | | | 0 | | | | 0 | | 0 | 0 | 0 | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002519 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |

*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

| | | | | | | | | Chlorinated Hydrocarbons | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Dibromomethane | Dichloromethane | Hexachlorobutadiene | Other chlorinated hydrocarbons EPAVic | Trichloroethene | Chlorinated hydrocarbons EPAVic | cis-1,2-dichloroethene | 1,1,2-trichloroethane | trans-1,3-dichloropropene | Vinyl chloride | Bromoform |
| | | | | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| EQL | | | | | | | | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| **Location Code** | **Field ID** | **Date** | **Depth** | **Lab Report Number** | **Lab Name** | **Sample Type** | **Parent Sample** | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | <0.5 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | | <0.50 | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886001 | | <0.5 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | | <0.50 | |
| RPD | | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | <0.5 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | | <0.50 | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| RPD | | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | <0.5 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | | <0.50 | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002512 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| RPD | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002512 | | <0.5 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | | <0.50 | |
| RPD | | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002519 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |

***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**

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | NA | | | | | |
| | | | | | | | | Carbon tetrachloride | Chlorodibromomethane | Chloroethane | trans-1,2-dichloroethene | Tetrachloroethene | Sum of WA DWER PFAS (n=10)* | | Moisture Content | Arochlor 1232 | Arochlor 1242 | Arochlor 1248 |
| | | | | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | UG/KG | µg/L | % | mg/kg | mg/kg | mg/kg |
| EQL | | | | | | | | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.05 | | 1 | 0.1 | 0.1 | 0.1 |
| **Location Code** | **Field ID** | **Date** | **Depth** | **Lab Report Number** | **Lab Name** | **Sample Type** | **Parent Sample** | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.50 | | | <0.50 | <0.50 | <10.0 | <0.01 | 28.4 | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886001 | <0.50 | | | <0.50 | <0.50 | <10.0 | <0.01 | 26.6 | | | |
| RPD | | | | | | | | 0 | | | 0 | 0 | 0 | 0 | 7 | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.50 | | | <0.50 | <0.50 | <10.0 | <0.01 | 28.4 | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | | | <0.1 | <0.1 | <0.1 |
| RPD | | | | | | | | 0 | | | 0 | 0 | 0 | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | <0.50 | | | <0.50 | <0.50 | <10.0 | <0.01 | 28.4 | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | | | | | | <0.05 | | | | | |
| RPD | | | | | | | | | | | | | 0 | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | <0.05 | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886009 | | | | | | | <0.05 | | | | |
| RPD | | | | | | | | | | | | | | 0 | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | <0.05 | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886009 | | | | | | <0.05 | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | | | <0.1 | <0.1 | <0.1 |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002512 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | | | <0.1 | <0.1 | <0.1 |
| RPD | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | | | <0.1 | <0.1 | <0.1 |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002512 | <0.50 | | | <0.50 | <0.50 | <10.0 | <0.01 | 29.0 | | | |
| RPD | | | | | | | | 0 | | | 0 | 0 | 0 | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | <0.05 | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002519 | | | | | | <0.05 | | | | | |
| RPD | | | | | | | | | | | | | 0 | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | <0.05 | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002524 | | | | | | <0.05 | | | | | |
| RPD | | | | | | | | | | | | | 0 | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | <0.05 | | | | | |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002524 | | | | | | | <0.05 | | | | |
| RPD | | | | | | | | | | | | | | | | | | |

***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**

| | | | | | | | | PCBs | | | | | Inorganics | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Arochlor 1254 | Arochlor 1221 | Arochlor 1260 | Arochlor 1016 | PCBs (Sum of total) | pH (after HCL) | pH (Final) | pH (Initial) | pH of Leaching Fluid | pH (aqueous extract) | Fluoride |
| | | | | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | - | - | - | - | - | mg/kg |
| EQL | | | | | | | | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100 |
| **Location Code** | **Field ID** | **Date** | **Depth** | **Lab Report Number** | **Lab Name** | **Sample Type** | **Parent Sample** | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | <0.1 | 1.3 | 4.9 | 9.3 | 5.0 | | 190 |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886001 | | | | | <0.1 | 1.9 | 4.9 | 9.4 | 5.0 | | 200 |
| RPD | | | | | | | | | | | | 0 | 37 | 0 | 1 | 0 | | 5 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | <0.1 | 1.3 | 4.9 | 9.3 | 5.0 | | 190 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | | | | | 8.4 | <100 |
| RPD | | | | | | | | | | | | 0 | | | | | | 62 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | <0.1 | 1.3 | 4.9 | 9.3 | 5.0 | | 190 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | | | | | | | 5.2 | | 5.0 | | |
| RPD | | | | | | | | | | | | | | 6 | | 0 | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | 9.6 | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886009 | | | | | | | 9.4 | | | | |
| RPD | | | | | | | | | | | | | | 2 | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | 9.6 | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886009 | | | | | | | 8.7 | | 6.4 | | |
| RPD | | | | | | | | | | | | | | 10 | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | | | | | 8.9 | <100 |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002512 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | | | | | 8.5 | <100 |
| RPD | | | | | | | | 0 | 0 | 0 | 0 | 0 | | | | | 5 | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | | | | | 8.9 | <100 |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002512 | | | | | <0.1 | 1.3 | 5.0 | 9.5 | 5.0 | | 210 |
| RPD | | | | | | | | | | | | 0 | | | | | | 71 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | 5.2 | | 5.0 | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002519 | | | | | | | 5.2 | | 5.0 | | |
| RPD | | | | | | | | | | | | | | 0 | | 0 | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | 8.8 | | 6.4 | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002524 | | | | | | | 8.8 | | 6.4 | | |
| RPD | | | | | | | | | | | | | | 0 | | 0 | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | 8.8 | | 6.4 | | |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002524 | | | | | | | 9.5 | | | | |
| RPD | | | | | | | | | | | | | | 8 | | | | |

*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

| Location Code | Field ID | Date | Depth | Lab Report Number | Lab Name | Sample Type | Parent Sample | | | Halogenated Benzenes | | | | | | | Halog | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Moisture Content (dried @ 103°C) | Cyanide Total | 1,2,4-trichlorobenzene | 1,2-dichlorobenzene | 1,3-dichlorobenzene | 1,4-dichlorobenzene | Bromobenzene | 4-chlorotoluene | Chlorobenzene | Iodomethane | Bromomethane |
| | | | | | | | | % | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| EQL | | | | | | | | 1 | 5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | <5 | <0.50 | <0.50 | | <0.50 | | | <0.50 | | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886001 | | <5 | <0.50 | <0.50 | | <0.50 | | | <0.50 | | |
| RPD | | | | | | | | | 0 | 0 | 0 | | 0 | | | 0 | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | <5 | <0.50 | <0.50 | | <0.50 | | | <0.50 | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | 27 | <5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| RPD | | | | | | | | | 0 | 0 | 0 | | 0 | | | 0 | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | <5 | <0.50 | <0.50 | | <0.50 | | | <0.50 | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | 26 | <5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002512 | 28 | <5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| RPD | | | | | | | | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | 26 | <5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002512 | | <5 | <0.50 | <0.50 | | <0.50 | | | <0.50 | | |
| RPD | | | | | | | | | 0 | 0 | 0 | | 0 | | | 0 | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002519 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |

*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

| | | | | | | | | enated Hydrocarbons | | | MAH | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 1,2-dibromoethane | Dichlorodifluoromethane | Trichlorofluoromethane | Total MAH | Monocylic aromatic hydrocarbons EPAVic | 1,3,5-trimethylbenzene | Styrene | Isopropylbenzene | 1,2,4-trimethylbenzene | 4-Methyl-2-pentanone | Acetone |
| | | | | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| EQL | | | | | | | | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| **Location Code** | **Field ID** | **Date** | **Depth** | **Lab Report Number** | **Lab Name** | **Sample Type** | **Parent Sample** | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | <0.5 | | <0.5 | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886001 | | | | | <0.5 | | <0.5 | | | | |
| RPD | | | | | | | | | | | | 0 | | 0 | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | <0.5 | | <0.5 | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | <0.5 | <0.5 | <0.5 | <0.5 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| RPD | | | | | | | | | | | | | | 0 | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | <0.5 | | <0.5 | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886009 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.5 | <0.5 | <0.5 | <0.5 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002512 | <0.5 | <0.5 | <0.5 | <0.5 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| RPD | | | | | | | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.5 | <0.5 | <0.5 | <0.5 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002512 | | | | | <0.5 | | <0.5 | | | | |
| RPD | | | | | | | | | | | | | | 0 | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002519 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002524 | | | | | | | | | | | |
| RPD | | | | | | | | | | | | | | | | | | |

***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**

| | | | | | | | | Solvents | | | SPOCAS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Allyl chloride | Carbon disulfide | Methyl Ethyl Ketone | pH (CaCl2) |
| | | | | | | | | mg/kg | mg/kg | mg/kg | - |
| EQL | | | | | | | | 0.5 | 0.5 | 0.5 | 0.1 |
| **Location Code** | **Field ID** | **Date** | **Depth** | **Lab Report Number** | **Lab Name** | **Sample Type** | **Parent Sample** | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | 7.7 |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886001 | | | | 7.6 |
| RPD | | | | | | | | | | | 1 |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | 7.7 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | <0.5 | <0.5 | <0.5 | |
| RPD | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | 7.7 |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886001 | | | | |
| RPD | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | |
| D03.01 | SX_OB_20220401_20_09_SS_Du | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Field_D | EM2205886009 | | | | |
| RPD | | | | | | | | | | | |
| D03.01 | SX_OB_20220401_20_08_SS_Pr | 1/04/2022 | | EM2205886 | ALSE-Melbourne | Normal | | | | | |
| D03.01 | SX_OB_20220401_20_10_SS_Tr | 1/04/2022 | | 876688 | MGT | Interlab_D | EM2205886009 | | | | |
| RPD | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.5 | <0.5 | <0.5 | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002512 | <0.5 | <0.5 | <0.5 | |
| RPD | | | | | | | | 0 | 0 | 0 | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | <0.5 | <0.5 | <0.5 | |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002512 | | | | 7.7 |
| RPD | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002519 | | | | |
| RPD | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | |
| D03.01 | SX_OB_20220402_04_00_SS_Du | 2/04/2022 | | 876688 | MGT | Field_D | M22-Ap0002524 | | | | |
| RPD | | | | | | | | | | | |
| D03.01 | SX_OB_20220402_03_59_SS_Pr | 2/04/2022 | | 876688 | MGT | Normal | | | | | |
| D03.01 | SX_OB_20220402_04_02_SS_Tr | 2/04/2022 | | EM2205886 | ALSE-Melbourne | Interlab_D | M22-Ap0002524 | | | | |
| RPD | | | | | | | | | | | |

***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**

ATTACHMENT B: 95% UCL AVE CALCULATIONS

| | A | B | C | D | E | F | G | H | I | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | UCL Statistics for Data Sets with Non-Detects | | | | | | | | | | | |
| 2 | | | | | | | | | | | | |
| 3 | User Selected Options | | | | | | | | | | | |
| 4 | Date/Time of Computation | | | ProUCL 5.114/04/2022 3:33:35 PM | | | | | | | | |
| 5 | From File | | | WorkSheet.xls | | | | | | | | |
| 6 | Full Precision | | | OFF | | | | | | | | |
| 7 | Confidence Coefficient | | | 95% | | | | | | | | |
| 8 | Number of Bootstrap Operations | | | 2000 | | | | | | | | |
| 9 | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | |
| 11 | Arsenic | | | | | | | | | | | |
| 12 | | | | | | | | | | | | |
| 13 | General Statistics | | | | | | | | | | | |
| 14 | Total Number of Observations | | | | | 19 | Number of Distinct Observations | | | | | 14 |
| 15 | | | | | | | Number of Missing Observations | | | | | 0 |
| 16 | Minimum | | | | | 14 | Mean | | | | | 27.63 |
| 17 | Maximum | | | | | 41 | Median | | | | | 28 |
| 18 | SD | | | | | 7.01 | Std. Error of Mean | | | | | 1.608 |
| 19 | Coefficient of Variation | | | | | 0.254 | Skewness | | | | | 0.295 |
| 20 | | | | | | | | | | | | |
| 21 | Normal GOF Test | | | | | | | | | | | |
| 22 | Shapiro Wilk Test Statistic | | | | | 0.966 | Shapiro Wilk GOF Test | | | | | |
| 23 | 5% Shapiro Wilk Critical Value | | | | | 0.901 | Data appear Normal at 5% Significance Level | | | | | |
| 24 | Lilliefors Test Statistic | | | | | 0.107 | Lilliefors GOF Test | | | | | |
| 25 | 5% Lilliefors Critical Value | | | | | 0.197 | Data appear Normal at 5% Significance Level | | | | | |
| 26 | Data appear Normal at 5% Significance Level | | | | | | | | | | | |
| 27 | | | | | | | | | | | | |
| 28 | Assuming Normal Distribution | | | | | | | | | | | |
| 29 | 95% Normal UCL | | | | | | 95% UCLs (Adjusted for Skewness) | | | | | |
| 30 | 95% Student's-t UCL | | | | | 30.42 | 95% Adjusted-CLT UCL (Chen-1995) | | | | | 30.39 |
| 31 | | | | | | | 95% Modified-t UCL (Johnson-1978) | | | | | 30.44 |
| 32 | | | | | | | | | | | | |
| 33 | Gamma GOF Test | | | | | | | | | | | |
| 34 | A-D Test Statistic | | | | | 0.227 | Anderson-Darling Gamma GOF Test | | | | | |
| 35 | 5% A-D Critical Value | | | | | 0.741 | Detected data appear Gamma Distributed at 5% Significance Level | | | | | |
| 36 | K-S Test Statistic | | | | | 0.0959 | Kolmogorov-Smirnov Gamma GOF Test | | | | | |
| 37 | 5% K-S Critical Value | | | | | 0.198 | Detected data appear Gamma Distributed at 5% Significance Level | | | | | |
| 38 | Detected data appear Gamma Distributed at 5% Significance Level | | | | | | | | | | | |
| 39 | | | | | | | | | | | | |
| 40 | Gamma Statistics | | | | | | | | | | | |
| 41 | k hat (MLE) | | | | | 15.88 | k star (bias corrected MLE) | | | | | 13.41 |
| 42 | Theta hat (MLE) | | | | | 1.74 | Theta star (bias corrected MLE) | | | | | 2.061 |
| 43 | nu hat (MLE) | | | | | 603.4 | nu star (bias corrected) | | | | | 509.5 |
| 44 | MLE Mean (bias corrected) | | | | | 27.63 | MLE Sd (bias corrected) | | | | | 7.546 |
| 45 | | | | | | | Approximate Chi Square Value (0.05) | | | | | 458.1 |
| 46 | Adjusted Level of Significance | | | | | 0.0369 | Adjusted Chi Square Value | | | | | 453.9 |
| 47 | | | | | | | | | | | | |
| 48 | Assuming Gamma Distribution | | | | | | | | | | | |
| 49 | 95% Approximate Gamma UCL (use when n>=50)) | | | | | 30.73 | 95% Adjusted Gamma UCL (use when n<50) | | | | | 31.02 |
| 50 | | | | | | | | | | | | |
| 51 | Lognormal GOF Test | | | | | | | | | | | |
| 52 | Shapiro Wilk Test Statistic | | | | | 0.965 | Shapiro Wilk Lognormal GOF Test | | | | | |
| 53 | 5% Shapiro Wilk Critical Value | | | | | 0.901 | Data appear Lognormal at 5% Significance Level | | | | | |
| 54 | Lilliefors Test Statistic | | | | | 0.0941 | Lilliefors Lognormal GOF Test | | | | | |
| 55 | 5% Lilliefors Critical Value | | | | | 0.197 | Data appear Lognormal at 5% Significance Level | | | | | |

| | A–E | F | G–K | L |
|---|---|---|---|---|
| 56 | Data appear Lognormal at 5% Significance Level | | | |
| 57 | | | | |
| 58 | **Lognormal Statistics** | | | |
| 59 | Minimum of Logged Data | 2.639 | Mean of logged Data | 3.287 |
| 60 | Maximum of Logged Data | 3.714 | SD of logged Data | 0.264 |
| 61 | | | | |
| 62 | **Assuming Lognormal Distribution** | | | |
| 63 | 95% H-UCL | 31.04 | 90% Chebyshev (MVUE) UCL | 32.74 |
| 64 | 95% Chebyshev (MVUE) UCL | 35.04 | 97.5% Chebyshev (MVUE) UCL | 38.24 |
| 65 | 99% Chebyshev (MVUE) UCL | 44.51 | | |
| 66 | | | | |
| 67 | **Nonparametric Distribution Free UCL Statistics** | | | |
| 68 | Data appear to follow a Discernible Distribution at 5% Significance Level | | | |
| 69 | | | | |
| 70 | **Nonparametric Distribution Free UCLs** | | | |
| 71 | 95% CLT UCL | 30.28 | 95% Jackknife UCL | 30.42 |
| 72 | 95% Standard Bootstrap UCL | 30.19 | 95% Bootstrap-t UCL | 30.67 |
| 73 | 95% Hall's Bootstrap UCL | 30.68 | 95% Percentile Bootstrap UCL | 30.26 |
| 74 | 95% BCA Bootstrap UCL | 30.26 | | |
| 75 | 90% Chebyshev(Mean, Sd) UCL | 32.46 | 95% Chebyshev(Mean, Sd) UCL | 34.64 |
| 76 | 97.5% Chebyshev(Mean, Sd) UCL | 37.67 | 99% Chebyshev(Mean, Sd) UCL | 43.63 |
| 77 | | | | |
| 78 | **Suggested UCL to Use** | | | |
| 79 | 95% Student's-t UCL | 30.42 | | |
| 80 | | | | |
| 81 | Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. | | | |
| 82 | Recommendations are based upon data size, data distribution, and skewness. | | | |
| 83 | These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006). | | | |
| 84 | However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician. | | | |
| 85 | | | | |
| 86 | | | | |
| 87 | Nickel | | | |
| 88 | | | | |
| 89 | **General Statistics** | | | |
| 90 | Total Number of Observations | 19 | Number of Distinct Observations | 14 |
| 91 | | | Number of Missing Observations | 0 |
| 92 | Minimum | 152 | Mean | 182.5 |
| 93 | Maximum | 220 | Median | 178 |
| 94 | SD | 19.74 | Std. Error of Mean | 4.528 |
| 95 | Coefficient of Variation | 0.108 | Skewness | 0.767 |
| 96 | | | | |
| 97 | **Normal GOF Test** | | | |
| 98 | Shapiro Wilk Test Statistic | 0.907 | **Shapiro Wilk GOF Test** | |
| 99 | 5% Shapiro Wilk Critical Value | 0.901 | Data appear Normal at 5% Significance Level | |
| 100 | Lilliefors Test Statistic | 0.181 | **Lilliefors GOF Test** | |
| 101 | 5% Lilliefors Critical Value | 0.197 | Data appear Normal at 5% Significance Level | |
| 102 | **Data appear Normal at 5% Significance Level** | | | |
| 103 | | | | |
| 104 | **Assuming Normal Distribution** | | | |
| 105 | **95% Normal UCL** | | **95% UCLs (Adjusted for Skewness)** | |
| 106 | 95% Student's-t UCL | 190.3 | 95% Adjusted-CLT UCL (Chen-1995) | 190.8 |
| 107 | | | 95% Modified-t UCL (Johnson-1978) | 190.5 |
| 108 | | | | |
| 109 | **Gamma GOF Test** | | | |
| 110 | A-D Test Statistic | 0.675 | **Anderson-Darling Gamma GOF Test** | |

| | A–E | F | G–K | L |
|---|---|---|---|---|
| 111 | 5% A-D Critical Value | 0.738 | Detected data appear Gamma Distributed at 5% Significance Level | |
| 112 | K-S Test Statistic | 0.17 | **Kolmogorov-Smirnov Gamma GOF Test** | |
| 113 | 5% K-S Critical Value | 0.198 | Detected data appear Gamma Distributed at 5% Significance Level | |
| 114 | **Detected data appear Gamma Distributed at 5% Significance Level** | | | |
| 115 | | | | |
| 116 | **Gamma Statistics** | | | |
| 117 | k hat (MLE) | 93.86 | k star (bias corrected MLE) | 79.07 |
| 118 | Theta hat (MLE) | 1.944 | Theta star (bias corrected MLE) | 2.308 |
| 119 | nu hat (MLE) | 3567 | nu star (bias corrected) | 3005 |
| 120 | MLE Mean (bias corrected) | 182.5 | MLE Sd (bias corrected) | 20.52 |
| 121 | | | Approximate Chi Square Value (0.05) | 2878 |
| 122 | Adjusted Level of Significance | 0.0369 | Adjusted Chi Square Value | 2868 |
| 123 | | | | |
| 124 | **Assuming Gamma Distribution** | | | |
| 125 | 95% Approximate Gamma UCL (use when n>=50)) | 190.5 | 95% Adjusted Gamma UCL (use when n<50) | 191.2 |
| 126 | | | | |
| 127 | **Lognormal GOF Test** | | | |
| 128 | Shapiro Wilk Test Statistic | 0.927 | **Shapiro Wilk Lognormal GOF Test** | |
| 129 | 5% Shapiro Wilk Critical Value | 0.901 | Data appear Lognormal at 5% Significance Level | |
| 130 | Lilliefors Test Statistic | 0.163 | **Lilliefors Lognormal GOF Test** | |
| 131 | 5% Lilliefors Critical Value | 0.197 | Data appear Lognormal at 5% Significance Level | |
| 132 | **Data appear Lognormal at 5% Significance Level** | | | |
| 133 | | | | |
| 134 | **Lognormal Statistics** | | | |
| 135 | Minimum of Logged Data | 5.024 | Mean of logged Data | 5.201 |
| 136 | Maximum of Logged Data | 5.394 | SD of logged Data | 0.105 |
| 137 | | | | |
| 138 | **Assuming Lognormal Distribution** | | | |
| 139 | 95% H-UCL | 190.5 | 90% Chebyshev (MVUE) UCL | 195.7 |
| 140 | 95% Chebyshev (MVUE) UCL | 201.7 | 97.5% Chebyshev (MVUE) UCL | 210 |
| 141 | 99% Chebyshev (MVUE) UCL | 226.3 | | |
| 142 | | | | |
| 143 | **Nonparametric Distribution Free UCL Statistics** | | | |
| 144 | **Data appear to follow a Discernible Distribution at 5% Significance Level** | | | |
| 145 | | | | |
| 146 | **Nonparametric Distribution Free UCLs** | | | |
| 147 | 95% CLT UCL | 189.9 | 95% Jackknife UCL | 190.3 |
| 148 | 95% Standard Bootstrap UCL | 189.6 | 95% Bootstrap-t UCL | 191.7 |
| 149 | 95% Hall's Bootstrap UCL | 190.7 | 95% Percentile Bootstrap UCL | 190.1 |
| 150 | 95% BCA Bootstrap UCL | 190.1 | | |
| 151 | 90% Chebyshev(Mean, Sd) UCL | 196.1 | 95% Chebyshev(Mean, Sd) UCL | 202.2 |
| 152 | 97.5% Chebyshev(Mean, Sd) UCL | 210.7 | 99% Chebyshev(Mean, Sd) UCL | 227.5 |
| 153 | | | | |
| 154 | **Suggested UCL to Use** | | | |
| 155 | 95% Student's-t UCL | 190.3 | | |
| 156 | | | | |
| 157 | Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. | | | |
| 158 | Recommendations are based upon data size, data distribution, and skewness. | | | |
| 159 | These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006). | | | |
| 160 | However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician. | | | |
| 161 | | | | |

ATTACHMENT C: LABORATORY CERTIFICATES

# CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing ABN 50 005 085 521

- ☐ Sydney Laboratory — Unit F3 Bld.F 16 Mars Road Lane Cove West NSW 2066 — 02 9900 8400 EnviroSampleNSW@eurofins.com
- ☐ Brisbane Laboratory — Unit 1 21 Smallwood Place Murarrie QLD 4172 — 07 3902 4600 EnviroSampleQLD@eurofins.com
- ☐ Perth Laboratory — Unit 2 91 Leach Highway Kewdale WA 6105 — 08 9251 9600 EnviroSampleWA@eurofins.com
- ☑ Melbourne Laboratory — 6 Monterey Road Dandenong South VIC 3175 — 03 8564 5000 EnviroSampleVic@eurofins.com

| | |
|---|---|
| Company | AGON Environmental - Tunnel Spoil Testing |
| Address | Unit H76, 63-85 Turner St, Port Melbourne VIC 3207 |
| Contact Name | Craig Trimbur<br>David Lawson |
| Phone № | +61 400 826 907 (Craig)<br>+61 490 411 004 (David) |
| Special Directions | Please provide an interim lab report if finalised report has not been provided by 14 days from sample receipt.<br>Please provide eSRN along with oter sample recipt documentation. |
| Purchase Order | |
| Quote ID № | Agon WGTP TST |
| Project № | JC0927 |
| Project Name | WGTP-Tunnel<br>Ref:20220401044227-Eurofin-13 |
| Project Manager | Craig Trimbur |
| EDD Format (ESdat, EQuIS etc) | Esdat |
| Sampler(s) | WHO - Agon TB - Agon |
| Handed over by | |
| Email for Invoice | finance@agonenviro.com.au<br>LabReports.TST@agonenviro.com.au |
| Email for Results | LabReports.TST@agonenviro.com.au<br>agonenvironmental@esdat.com.au<br>motherhublabresults1@wgtp.com.au<br>Amrit.Kaur@agile-analytics.com.au |

**Analyses** — Where metals are requested, please specify "Total" or "Filtered". SUITE code must be used to attract SUITE pricing.

**Containers** — Change container type & size if necessary: 500mL Plastic; 250mL Plastic; 125mL Plastic; 200mL Amber Glass; 40mL VOA vial; 500mL PFAS Bottle; Jar (Glass or HDPE); Other (Asbestos AS4964, WA Guidelines)

**Required Turnaround Time (TAT)** — Default will be 5 days if not ticked. ♦Surcharge will apply
☐ Overnight (reporting by 9am)♦ ☐ Same day♦ ☐ 1 day♦ ☐ 2 days♦ ☐ 3 days♦ ☑ 5 days (Standard) ☐ Other (  )

#$ 816487
1/4/22

| № | Client Sample ID | Sampled Date/Time (dd/mm/yy hh:mm) | Matrix (Solid (S), Water (W)) | Spoil Sample Preparation | Suite WGTP-R1-TRH/ PAH/ Phenols/ OCP/ PCB/ VOC/ Vinyl Chloride/ Metals (As, Cd, Cr, Cu, Ni, Pb, Hg, Ag, Sn, Mo, Se, Zn)/ Cr6+/ CN/ Total Fluoride/ pH | PFAS Extended Suite - 0.1- 5ug/kg | ASLP PH 5 - PFAS 0.01-0.05 ug/l | ASLP Reagent - PFAS 0.01-0.05ug/l | Jar (Glass or HDPE) | Sample Comments / Dangerous Goods Hazard Warning |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SX_OB_20220331_07_51_SS_Triplicate_EUF | 31/03/22 | S | X | X | X | X | X | 1 | |
| 2 | SX_OB_20220331_08_03_SS_Primary_EUF | 31/03/22 | S | X | X | X | X | X | | |
| 3 | SX_OB_20220331_21_00_SS_Primary_EUF | 31/03/22 | S | X | X | X | X | X | 1 | |
| 4 | SX_OB_20220401_00_20_SS_Primary_EUF | 1/04/22 | S | X | X | X | X | X | | |
| 5 | SX_OB_20220401_04_12_SS_Primary_EUF | 1/04/22 | S | X | X | X | X | X | 1 | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | | | | | | | NO |
| 11 | | | | | | | | | | |
| 12 | | | | | | | | | | 19.6 - 0.2 19.4°C |
| 13 | | | | | | | | | | |
| | | | Total Counts | 5 | 5 | 5 | 5 | 5 | 5 | |

Method of Shipment: ☑ Courier (# ) ☐ Hand Delivered ☐ Postal — Name: David Lawson — Signature: [signature] — Date: 1.4.22 — Time: 12:06

| Laboratory Use Only | | | | | | | |
|---|---|---|---|---|---|---|---|
| Received By | Emily D | SYD \| BNE \| MEL \| PER \| ADL \| NTL \| DRW | Signature [signature] | Date 1/4/22 | Time 2.17pm | Temperature | 19.4°C |
| Received By | | SYD \| BNE \| MEL \| PER \| ADL \| NTL \| DRW | Signature | Date | Time | Report № | |

Eurofins Environment Testing Australia Pty Ltd

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | Environment Testing Standard Terms and Conditions unless agreed otherwise. A copy is available on request.

QS3009_R10 Modified by Dr R Symons Approved by G Jackson Approved on 8 August 2019

# Sample Receipt Advice

| | |
|---|---|
| **Company name:** | Agon Environmental Pty Ltd - VIC |
| **Contact name:** | - ALL SPOIL REPORTS WGTP Mother Hub |
| **Project name:** | 20220401044227-Eurofin-13 |
| **Project ID:** | JC0927 |
| **Turnaround time:** | 5 Day |
| **Date/Time received** | Apr 1, 2022 2:17 PM |
| **Eurofins reference** | 876487 |

## Sample Information

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

## Notes

## Contact

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

**Michael Cassidy on phone : +61 3 8564 5000 or by email: MichaelCassidy@eurofins.com**

Results will be delivered electronically via email to - ALL SPOIL REPORTS WGTP Mother Hub - motherhublabresults1@wgtp.com.au.

*Note: A copy of these results will also be delivered to the general Agon Environmental Pty Ltd - VIC email address.*

Global Leader - Results you can trust

**Company Name:** Agon Environmental Pty Ltd - VIC
**Address:** 3/224 Glen Osmond Road
Fullarton
SA 5063

**Project Name:** 20220401044227-Eurofin-13
**Project ID:** JC0927

**Order No.:**
**Report #:** 876487
**Phone:** 08 8338 1009
**Fax:**

**Received:** Apr 1, 2022 2:17 PM
**Due:** Apr 8, 2022
**Priority:** 5 Day
**Contact Name:** - ALL SPOIL REPORTS WGTP

**Eurofins Analytical Services Manager : Michael Cassidy**

| Sample Detail | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **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 | SX_OB_20220331_07_51_SS_Triplicate_EUF | Mar 31, 2022 | | Soil | M22-Ap0001194 | | X | X | X |
| 2 | SX_OB_20220331_08_03_SS_Primary_EUF | Mar 31, 2022 | | Soil | M22-Ap0001195 | | X | X | X |
| 3 | SX_OB_20220331_21_00_SS_Primary_EUF | Mar 31, 2022 | | Soil | M22-Ap0001196 | | X | X | X |

| | | | | | |
|---|---|---|---|---|---|
| **Company Name:** | Agon Environmental Pty Ltd - VIC | **Order No.:** | | **Received:** | Apr 1, 2022 2:17 PM |
| **Address:** | 3/224 Glen Osmond Road<br>Fullarton<br>SA 5063 | **Report #:** | 876487 | **Due:** | Apr 8, 2022 |
| | | **Phone:** | 08 8338 1009 | **Priority:** | 5 Day |
| | | **Fax:** | | **Contact Name:** | - ALL SPOIL REPORTS WGTP |
| **Project Name:** | 20220401044227-Eurofin-13 | | | | |
| **Project ID:** | JC0927 | | | | |

**Eurofins Analytical Services Manager : Michael Cassidy**

| **Sample Detail** | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| 4 | SX_OB_20220401_00_20_SS_Primary_EUF | Apr 01, 2022 | | Soil | M22-Ap0001197 | | X | X | X |
| 5 | SX_OB_20220401_04_12_SS_Primary_EUF | Apr 01, 2022 | | Soil | M22-Ap0001198 | | X | X | X |
| 6 | SX_OB_20220331_07_51_SS_Triplicate_EUF A | Mar 31, 2022 | | AUS Leachate - pH 5.0 | M22-Ap0001199 | X | | X | |
| 7 | SX_OB_20220331_08_03_S | Mar 31, 2022 | | AUS Leachate - pH 5.0 | M22-Ap0001200 | X | | X | |

| | | | | | |
|---|---|---|---|---|---|
| **Company Name:** | Agon Environmental Pty Ltd - VIC | **Order No.:** | | **Received:** | Apr 1, 2022 2:17 PM |
| **Address:** | 3/224 Glen Osmond Road<br>Fullarton<br>SA 5063 | **Report #:** | 876487 | **Due:** | Apr 8, 2022 |
| | | **Phone:** | 08 8338 1009 | **Priority:** | 5 Day |
| | | **Fax:** | | **Contact Name:** | - ALL SPOIL REPORTS WGTP |
| **Project Name:** | 20220401044227-Eurofin-13 | | | | |
| **Project ID:** | JC0927 | | | | |

**Eurofins Analytical Services Manager : Michael Cassidy**

| Sample Detail | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| | S_Primary_EU FA | | | | | | | | |
| 8 | SX_OB_20220331_21_00_SS_Primary_EUFA | Mar 31, 2022 | | AUS Leachate - pH 5.0 | M22-Ap0001201 | X | | X | |
| 9 | SX_OB_20220401_00_20_SS_Primary_EUFA | Apr 01, 2022 | | AUS Leachate - pH 5.0 | M22-Ap0001202 | X | | X | |
| 10 | SX_OB_20220401_04_12_SS_Primary_EUFA | Apr 01, 2022 | | AUS Leachate - pH 5.0 | M22-Ap0001203 | X | | X | |

eurofins Environment Testing

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**Eurofins Environment Testing Australia Pty Ltd**
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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
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NATA # 2377 Site # 2370

**Eurofins Environment Testing NZ Limited**
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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:** Agon Environmental Pty Ltd - VIC
**Address:** 3/224 Glen Osmond Road
Fullarton
SA 5063

**Project Name:** 20220401044227-Eurofin-13
**Project ID:** JC0927

**Order No.:**
**Report #:** 876487
**Phone:** 08 8338 1009
**Fax:**

**Received:** Apr 1, 2022 2:17 PM
**Due:** Apr 8, 2022
**Priority:** 5 Day
**Contact Name:** - ALL SPOIL REPORTS WGTP

**Eurofins Analytical Services Manager : Michael Cassidy**

| **Sample Detail** | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| 11 | SX_OB_20220331_07_51_SS_Triplicate_EUF B | Mar 31, 2022 | | AUS Leachate - Reagent Water | M22-Ap0001204 | X | | X | |
| 12 | SX_OB_20220331_08_03_SS_Primary_EUF B | Mar 31, 2022 | | AUS Leachate - Reagent Water | M22-Ap0001205 | X | | X | |
| 13 | SX_OB_20220331_21_00_SS_Primary_EUF B | Mar 31, 2022 | | AUS Leachate - Reagent Water | M22-Ap0001206 | X | | X | |
| 14 | SX_OB_20220401_00_20_S | Apr 01, 2022 | | AUS Leachate - Reagent | M22-Ap0001207 | X | | X | |

eurofins Environment Testing

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NATA # 1261 Site # 18217

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

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Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

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

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

**Company Name:** Agon Environmental Pty Ltd - VIC
**Address:** 3/224 Glen Osmond Road
Fullarton
SA 5063

**Project Name:** 20220401044227-Eurofin-13
**Project ID:** JC0927

**Order No.:**
**Report #:** 876487
**Phone:** 08 8338 1009
**Fax:**

**Received:** Apr 1, 2022 2:17 PM
**Due:** Apr 8, 2022
**Priority:** 5 Day
**Contact Name:** - ALL SPOIL REPORTS WGTP

**Eurofins Analytical Services Manager : Michael Cassidy**

| **Sample Detail** | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| | S_Primary_EU F B | | | Water | | | | | |
| 15 | SX_OB_20220 401_04_12_S S_Primary_EU F B | Apr 01, 2022 | | AUS Leachate - Reagent Water | M22-Ap0001208 | X | | X | |
| **Test Counts** | | | | | | 10 | 5 | 15 | 5 |

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Environment Testing

# Certificate of Analysis

**Agon Environmental Pty Ltd - VIC**
**3/224 Glen Osmond Road**
**Fullarton**
**SA 5063**

**NATA Accredited**
**Accreditation Number 1261**
**Site Number 1254**

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

**Attention:** **- ALL SPOIL REPORTS WGTP Mother Hub**

| | |
|---|---|
| **Report** | **876487-L** |
| Project name | 20220401044227-Eurofin-13 |
| Project ID | JC0927 |
| Received Date | Apr 01, 2022 |

| **Client Sample ID** | | | **SX_OB_20220331_07_51_SS_Triplicate_EUF A** | **SX_OB_20220331_08_03_SS_Primary_EUFA** | **SX_OB_20220331_21_00_SS_Primary_EUFA** | **SX_OB_20220401_00_20_SS_Primary_EUFA** |
|---|---|---|---|---|---|---|
| **Sample Matrix** | | | **AUS Leachate - pH 5.0** | **AUS Leachate - pH 5.0** | **AUS Leachate - pH 5.0** | **AUS Leachate - pH 5.0** |
| **Eurofins Sample No.** | | | **M22-Ap0001199** | **M22-Ap0001200** | **M22-Ap0001201** | **M22-Ap0001202** |
| **Date Sampled** | | | **Mar 31, 2022** | **Mar 31, 2022** | **Mar 31, 2022** | **Apr 01, 2022** |
| Test/Reference | LOR | Unit | | | | |
| **AUS Leaching Procedure** | | | | | | |
| Leachate Fluid[C01] | | comment | 1.0 | 1.0 | 1.0 | 1.0 |
| pH (initial) | 0.1 | pH Units | N/A | N/A | N/A | N/A |
| pH (Leachate fluid) | 0.1 | pH Units | 5.0 | 5.0 | 5.0 | 5.0 |
| pH (off) | 0.1 | pH Units | 5.1 | 5.1 | 5.1 | 5.1 |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | | | |
| Perfluorobutanoic acid (PFBA)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Perfluoropentanoic acid (PFPeA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorohexanoic acid (PFHxA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluoroheptanoic acid (PFHpA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorooctanoic acid (PFOA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorononanoic acid (PFNA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorodecanoic acid (PFDA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluoroundecanoic acid (PFUnDA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorododecanoic acid (PFDoDA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorotridecanoic acid (PFTrDA)[N15] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorotetradecanoic acid (PFTeDA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 13C4-PFBA (surr.) | 1 | % | 83 | 87 | 79 | 75 |
| 13C5-PFPeA (surr.) | 1 | % | 92 | 93 | 86 | 79 |
| 13C5-PFHxA (surr.) | 1 | % | 74 | 93 | 82 | 81 |
| 13C4-PFHpA (surr.) | 1 | % | 84 | 95 | 83 | 81 |
| 13C8-PFOA (surr.) | 1 | % | 88 | 95 | 74 | 72 |
| 13C5-PFNA (surr.) | 1 | % | 78 | 85 | 77 | 71 |
| 13C6-PFDA (surr.) | 1 | % | 87 | 87 | 70 | 70 |
| 13C2-PFUnDA (surr.) | 1 | % | 78 | 75 | 51 | 59 |
| 13C2-PFDoDA (surr.) | 1 | % | 53 | 50 | 44 | 50 |
| 13C2-PFTeDA (surr.) | 1 | % | 13 | 11 | 13 | 28 |

| Client Sample ID | | | SX_OB_20220331_07_51_SS_Triplicate_EUFA | SX_OB_20220331_08_03_SS_Primary_EUFA | SX_OB_20220331_21_00_SS_Primary_EUFA | SX_OB_20220401_00_20_SS_Primary_EUFA |
|---|---|---|---|---|---|---|
| Sample Matrix | | | AUS Leachate - pH 5.0 | AUS Leachate - pH 5.0 | AUS Leachate - pH 5.0 | AUS Leachate - pH 5.0 |
| Eurofins Sample No. | | | M22-Ap0001199 | M22-Ap0001200 | M22-Ap0001201 | M22-Ap0001202 |
| Date Sampled | | | Mar 31, 2022 | Mar 31, 2022 | Mar 31, 2022 | Apr 01, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Perfluoroalkyl sulfonamido substances** | | | | | | |
| Perfluorooctane sulfonamide (FOSA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)N11 | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)N11 | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| 13C8-FOSA (surr.) | 1 | % | 93 | 93 | 84 | 71 |
| D3-N-MeFOSA (surr.) | 1 | % | 94 | 90 | 77 | 68 |
| D5-N-EtFOSA (surr.) | 1 | % | 117 | 112 | 103 | 94 |
| D7-N-MeFOSE (surr.) | 1 | % | 56 | 60 | 57 | 42 |
| D9-N-EtFOSE (surr.) | 1 | % | 72 | 68 | 67 | 56 |
| D5-N-EtFOSAA (surr.) | 1 | % | 24 | 27 | 20 | 20 |
| D3-N-MeFOSAA (surr.) | 1 | % | 32 | 30 | 20 | 24 |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | | | |
| Perfluorobutanesulfonic acid (PFBS)N11 | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorononanesulfonic acid (PFNS)N15 | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluoropropanesulfonic acid (PFPrS)N15 | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluoropentanesulfonic acid (PFPeS)N15 | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorohexanesulfonic acid (PFHxS)N11 | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluoroheptanesulfonic acid (PFHpS)N15 | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorooctanesulfonic acid (PFOS)N11 | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorodecanesulfonic acid (PFDS)N15 | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 13C3-PFBS (surr.) | 1 | % | 73 | 88 | 79 | 74 |
| 18O2-PFHxS (surr.) | 1 | % | 50 | 81 | 56 | 62 |
| 13C8-PFOS (surr.) | 1 | % | 77 | 84 | 72 | 70 |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 13C2-4:2 FTSA (surr.) | 1 | % | 49 | 49 | 43 | 41 |
| 13C2-6:2 FTSA (surr.) | 1 | % | 127 | 99 | 86 | 70 |
| 13C2-8:2 FTSA (surr.) | 1 | % | 86 | 90 | 74 | 60 |
| 13C2-10:2 FTSA (surr.) | 1 | % | 60 | 65 | 53 | 61 |
| **PFASs Summations** | | | | | | |
| Sum (PFHxS + PFOS)* | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Sum of US EPA PFAS (PFOS + PFOA)* | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Sum of enHealth PFAS (PFHxS + PFOS + PFOA)* | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Sum of WA DWER PFAS (n=10)* | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Sum of PFASs (n=30)* | 0.1 | ug/L | < 0.1 | < 0.1 | < 0.1 | < 0.1 |

| Client Sample ID | | | SX_OB_20220401_04_12_SS_Primary_EUFA | SX_OB_20220331_07_51_SS_Triplicate_EUFB | SX_OB_20220331_08_03_SS_Primary_EUFB | SX_OB_20220331_21_00_SS_Primary_EUFB |
|---|---|---|---|---|---|---|
| Sample Matrix | | | AUS Leachate - pH 5.0 | AUS Leachate - Reagent Water | AUS Leachate - Reagent Water | AUS Leachate - Reagent Water |
| Eurofins Sample No. | | | M22-Ap0001203 | M22-Ap0001204 | M22-Ap0001205 | M22-Ap0001206 |
| Date Sampled | | | Apr 01, 2022 | Mar 31, 2022 | Mar 31, 2022 | Mar 31, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **AUS Leaching Procedure** | | | | | | |
| Leachate Fluid[C01] | | comment | 1.0 | 4.0 | 4.0 | 4.0 |
| pH (initial) | 0.1 | pH Units | N/A | N/A | N/A | N/A |
| pH (Leachate fluid) | 0.1 | pH Units | 5.0 | 6.2 | 6.2 | 6.2 |
| pH (off) | 0.1 | pH Units | 5.1 | 6.8 | 8.8 | 8.9 |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | | | |
| Perfluorobutanoic acid (PFBA)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Perfluoropentanoic acid (PFPeA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorohexanoic acid (PFHxA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluoroheptanoic acid (PFHpA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorooctanoic acid (PFOA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorononanoic acid (PFNA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorodecanoic acid (PFDA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluoroundecanoic acid (PFUnDA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorododecanoic acid (PFDoDA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorotridecanoic acid (PFTrDA)[N15] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorotetradecanoic acid (PFTeDA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 13C4-PFBA (surr.) | 1 | % | 66 | 76 | 69 | 72 |
| 13C5-PFPeA (surr.) | 1 | % | 67 | 78 | 78 | 89 |
| 13C5-PFHxA (surr.) | 1 | % | 68 | 52 | 77 | 79 |
| 13C4-PFHpA (surr.) | 1 | % | 71 | 77 | 76 | 81 |
| 13C8-PFOA (surr.) | 1 | % | 68 | 82 | 80 | 72 |
| 13C5-PFNA (surr.) | 1 | % | 67 | 76 | 76 | 78 |
| 13C6-PFDA (surr.) | 1 | % | 67 | 87 | 84 | 81 |
| 13C2-PFUnDA (surr.) | 1 | % | 68 | 89 | 87 | 66 |
| 13C2-PFDoDA (surr.) | 1 | % | 59 | 65 | 64 | 58 |
| 13C2-PFTeDA (surr.) | 1 | % | 45 | 16 | 24 | 18 |
| **Perfluoroalkyl sulfonamido substances** | | | | | | |
| Perfluorooctane sulfonamide (FOSA)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| 13C8-FOSA (surr.) | 1 | % | 73 | 91 | 84 | 84 |
| D3-N-MeFOSA (surr.) | 1 | % | 83 | 100 | 95 | 82 |
| D5-N-EtFOSA (surr.) | 1 | % | 118 | 111 | 111 | 92 |
| D7-N-MeFOSE (surr.) | 1 | % | 52 | 52 | 57 | 48 |
| D9-N-EtFOSE (surr.) | 1 | % | 62 | 64 | 64 | 56 |
| D5-N-EtFOSAA (surr.) | 1 | % | 25 | 31 | 32 | 36 |
| D3-N-MeFOSAA (surr.) | 1 | % | 28 | 32 | 35 | 37 |

| Client Sample ID | | | SX_OB_20220401_04_12_SS_Primary_EUFA | SX_OB_20220331_07_51_SS_Triplicate_EUFB | SX_OB_20220331_08_03_SS_Primary_EUFB | SX_OB_20220331_21_00_SS_Primary_EUFB |
|---|---|---|---|---|---|---|
| **Sample Matrix** | | | **AUS Leachate - pH 5.0** | **AUS Leachate - Reagent Water** | **AUS Leachate - Reagent Water** | **AUS Leachate - Reagent Water** |
| **Eurofins Sample No.** | | | **M22-Ap0001203** | **M22-Ap0001204** | **M22-Ap0001205** | **M22-Ap0001206** |
| **Date Sampled** | | | Apr 01, 2022 | Mar 31, 2022 | Mar 31, 2022 | Mar 31, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | | | |
| Perfluorobutanesulfonic acid (PFBS)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorononanesulfonic acid (PFNS)[N15] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluoropropanesulfonic acid (PFPrS)[N15] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluoropentanesulfonic acid (PFPeS)[N15] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorohexanesulfonic acid (PFHxS)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluoroheptanesulfonic acid (PFHpS)[N15] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorooctanesulfonic acid (PFOS)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorodecanesulfonic acid (PFDS)[N15] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 13C3-PFBS (surr.) | 1 | % | 63 | 59 | 83 | 82 |
| 18O2-PFHxS (surr.) | 1 | % | 51 | 49 | 85 | 63 |
| 13C8-PFOS (surr.) | 1 | % | 63 | 87 | 84 | 80 |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 13C2-4:2 FTSA (surr.) | 1 | % | 38 | 40 | 37 | 37 |
| 13C2-6:2 FTSA (surr.) | 1 | % | 63 | 100 | 60 | 65 |
| 13C2-8:2 FTSA (surr.) | 1 | % | 64 | 86 | 69 | 66 |
| 13C2-10:2 FTSA (surr.) | 1 | % | 59 | 63 | 68 | 64 |
| **PFASs Summations** | | | | | | |
| Sum (PFHxS + PFOS)* | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Sum of US EPA PFAS (PFOS + PFOA)* | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Sum of enHealth PFAS (PFHxS + PFOS + PFOA)* | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Sum of WA DWER PFAS (n=10)* | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Sum of PFASs (n=30)* | 0.1 | ug/L | < 0.1 | < 0.1 | < 0.1 | < 0.1 |

| Client Sample ID | | | SX_OB_20220401_00_20_SS_Primary_EUFB | SX_OB_20220401_04_12_SS_Primary_EUFB |
|---|---|---|---|---|
| **Sample Matrix** | | | **AUS Leachate - Reagent Water** | **AUS Leachate - Reagent Water** |
| **Eurofins Sample No.** | | | **M22-Ap0001207** | **M22-Ap0001208** |
| **Date Sampled** | | | Apr 01, 2022 | Apr 01, 2022 |
| Test/Reference | LOR | Unit | | |
| **AUS Leaching Procedure** | | | | |
| Leachate Fluid[C01] | | comment | 4.0 | 4.0 |
| pH (initial) | 0.1 | pH Units | N/A | N/A |
| pH (Leachate fluid) | 0.1 | pH Units | 6.2 | 6.2 |
| pH (off) | 0.1 | pH Units | 8.9 | 8.9 |

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| Client Sample ID | | | SX_OB_20220401_00_20_SS_Primary_EUFB | SX_OB_20220401_04_12_SS_Primary_EUFB |
|---|---|---|---|---|
| Sample Matrix | | | AUS Leachate - Reagent Water | AUS Leachate - Reagent Water |
| Eurofins Sample No. | | | M22-Ap0001207 | M22-Ap0001208 |
| Date Sampled | | | Apr 01, 2022 | Apr 01, 2022 |
| Test/Reference | LOR | Unit | | |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | |
| Perfluorobutanoic acid (PFBA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 |
| Perfluoropentanoic acid (PFPeA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorohexanoic acid (PFHxA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluoroheptanoic acid (PFHpA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorooctanoic acid (PFOA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorononanoic acid (PFNA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorodecanoic acid (PFDA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluoroundecanoic acid (PFUnDA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorododecanoic acid (PFDoDA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorotridecanoic acid (PFTrDA)N15 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorotetradecanoic acid (PFTeDA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| 13C4-PFBA (surr.) | 1 | % | 72 | 64 |
| 13C5-PFPeA (surr.) | 1 | % | 81 | 66 |
| 13C5-PFHxA (surr.) | 1 | % | 73 | 66 |
| 13C4-PFHpA (surr.) | 1 | % | 81 | 71 |
| 13C8-PFOA (surr.) | 1 | % | 79 | 69 |
| 13C5-PFNA (surr.) | 1 | % | 79 | 70 |
| 13C6-PFDA (surr.) | 1 | % | 83 | 79 |
| 13C2-PFUnDA (surr.) | 1 | % | 72 | 79 |
| 13C2-PFDoDA (surr.) | 1 | % | 52 | 60 |
| 13C2-PFTeDA (surr.) | 1 | % | 16 | 17 |
| **Perfluoroalkyl sulfonamido substances** | | | | |
| Perfluorooctane sulfonamide (FOSA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)N11 | 0.05 | ug/L | < 0.05 | < 0.05 |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)N11 | 0.05 | ug/L | < 0.05 | < 0.05 |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 |
| 13C8-FOSA (surr.) | 1 | % | 83 | 77 |
| D3-N-MeFOSA (surr.) | 1 | % | 76 | 88 |
| D5-N-EtFOSA (surr.) | 1 | % | 85 | 101 |
| D7-N-MeFOSE (surr.) | 1 | % | 51 | 54 |
| D9-N-EtFOSE (surr.) | 1 | % | 58 | 60 |
| D5-N-EtFOSAA (surr.) | 1 | % | 26 | 36 |
| D3-N-MeFOSAA (surr.) | 1 | % | 28 | 33 |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | |
| Perfluorobutanesulfonic acid (PFBS)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorononanesulfonic acid (PFNS)N15 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluoropropanesulfonic acid (PFPrS)N15 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluoropentanesulfonic acid (PFPeS)N15 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorohexanesulfonic acid (PFHxS)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |

| Client Sample ID | | | SX_OB_20220401_00_20_SS_Primary_EUFB | SX_OB_20220401_04_12_SS_Primary_EUFB |
|---|---|---|---|---|
| Sample Matrix | | | AUS Leachate - Reagent Water | AUS Leachate - Reagent Water |
| Eurofins Sample No. | | | M22-Ap0001207 | M22-Ap0001208 |
| Date Sampled | | | Apr 01, 2022 | Apr 01, 2022 |
| Test/Reference | LOR | Unit | | |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | |
| Perfluoroheptanesulfonic acid (PFHpS)[N15] | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorooctanesulfonic acid (PFOS)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorodecanesulfonic acid (PFDS)[N15] | 0.01 | ug/L | < 0.01 | < 0.01 |
| 13C3-PFBS (surr.) | 1 | % | 76 | 70 |
| 18O2-PFHxS (surr.) | 1 | % | 68 | 56 |
| 13C8-PFOS (surr.) | 1 | % | 80 | 80 |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 |
| 13C2-4:2 FTSA (surr.) | 1 | % | 41 | 36 |
| 13C2-6:2 FTSA (surr.) | 1 | % | 80 | 62 |
| 13C2-8:2 FTSA (surr.) | 1 | % | 69 | 61 |
| 13C2-10:2 FTSA (surr.) | 1 | % | 54 | 72 |
| **PFASs Summations** | | | | |
| Sum (PFHxS + PFOS)* | 0.01 | ug/L | < 0.01 | < 0.01 |
| Sum of US EPA PFAS (PFOS + PFOA)* | 0.01 | ug/L | < 0.01 | < 0.01 |
| Sum of enHealth PFAS (PFHxS + PFOS + PFOA)* | 0.01 | ug/L | < 0.01 | < 0.01 |
| Sum of WA DWER PFAS (n=10)* | 0.05 | ug/L | < 0.05 | < 0.05 |
| Sum of PFASs (n=30)* | 0.1 | ug/L | < 0.1 | < 0.1 |

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## 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 |
|---|---|---|---|
| AUS Leaching Procedure | | | |
| pH (initial) | Melbourne | Apr 02, 2022 | 0 Days |
| - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes | | | |
| pH (Leachate fluid) | Melbourne | Apr 02, 2022 | 0 Days |
| - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes | | | |
| pH (off) | Melbourne | Apr 02, 2022 | 0 Days |
| - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes | | | |
| Per- and Polyfluoroalkyl Substances (PFASs) | | | |
| Perfluoroalkyl carboxylic acids (PFCAs) | Melbourne | Apr 02, 2022 | 28 Days |
| - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) | | | |
| Perfluoroalkyl sulfonamido substances | Melbourne | Apr 02, 2022 | 28 Days |
| - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) | | | |
| Perfluoroalkyl sulfonic acids (PFSAs) | Melbourne | Apr 02, 2022 | 28 Days |
| - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) | | | |
| n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) | Melbourne | Apr 02, 2022 | 28 Days |
| - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) | | | |
| PFASs Summations | Melbourne | Apr 01, 2022 | |
| - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) | | | |

| | | | | | |
|---|---|---|---|---|---|
| **Company Name:** | Agon Environmental Pty Ltd - VIC | **Order No.:** | | **Received:** | Apr 1, 2022 2:17 PM |
| **Address:** | 3/224 Glen Osmond Road<br>Fullarton<br>SA 5063 | **Report #:** | 876487 | **Due:** | Apr 8, 2022 |
| | | **Phone:** | 08 8338 1009 | **Priority:** | 5 Day |
| | | **Fax:** | | **Contact Name:** | - ALL SPOIL REPORTS WGTP |
| **Project Name:** | 20220401044227-Eurofin-13 | | | | |
| **Project ID:** | JC0927 | | | | |

**Eurofins Analytical Services Manager : Michael Cassidy**

| **Sample Detail** | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **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 | SX_OB_20220331_07_51_SS_Triplicate_EUF | Mar 31, 2022 | | Soil | M22-Ap0001194 | | X | X | X |
| 2 | SX_OB_20220331_08_03_SS_Primary_EUF | Mar 31, 2022 | | Soil | M22-Ap0001195 | | X | X | X |
| 3 | SX_OB_20220331_21_00_SS_Primary_EUF | Mar 31, 2022 | | Soil | M22-Ap0001196 | | X | X | X |

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| | | | | | |
|---|---|---|---|---|---|
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| | | **Phone:** | 08 8338 1009 | **Priority:** | 5 Day |
| | | **Fax:** | | **Contact Name:** | - ALL SPOIL REPORTS WGTP |
| **Project Name:** | 20220401044227-Eurofin-13 | | | | |
| **Project ID:** | JC0927 | | | | |

**Eurofins Analytical Services Manager : Michael Cassidy**

| **Sample Detail** | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| 4 | SX_OB_20220401_00_20_SS_Primary_EUF | Apr 01, 2022 | | Soil | M22-Ap0001197 | | X | X | X |
| 5 | SX_OB_20220401_04_12_SS_Primary_EUF | Apr 01, 2022 | | Soil | M22-Ap0001198 | | X | X | X |
| 6 | SX_OB_20220331_07_51_SS_Triplicate_EUF A | Mar 31, 2022 | | AUS Leachate - pH 5.0 | M22-Ap0001199 | X | | X | |
| 7 | SX_OB_20220331_08_03_S | Mar 31, 2022 | | AUS Leachate - pH 5.0 | M22-Ap0001200 | X | | X | |

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| | | | | | |
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| | | **Fax:** | | **Contact Name:** | - ALL SPOIL REPORTS WGTP |
| **Project Name:** | 20220401044227-Eurofin-13 | | | | |
| **Project ID:** | JC0927 | | | | |

**Eurofins Analytical Services Manager : Michael Cassidy**

| **Sample Detail** | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| | S_Primary_EU F A | | | | | | | | |
| 8 | SX_OB_20220 331_21_00_S S_Primary_EU F A | Mar 31, 2022 | | AUS Leachate - pH 5.0 | M22-Ap0001201 | X | | X | |
| 9 | SX_OB_20220 401_00_20_S S_Primary_EU F A | Apr 01, 2022 | | AUS Leachate - pH 5.0 | M22-Ap0001202 | X | | X | |
| 10 | SX_OB_20220 401_04_12_S S_Primary_EU F A | Apr 01, 2022 | | AUS Leachate - pH 5.0 | M22-Ap0001203 | X | | X | |

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| | | **Fax:** | | **Contact Name:** | - ALL SPOIL REPORTS WGTP |
| **Project Name:** | 20220401044227-Eurofin-13 | | | | |
| **Project ID:** | JC0927 | | | | |

**Eurofins Analytical Services Manager : Michael Cassidy**

| **Sample Detail** | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| 11 | SX_OB_20220331_07_51_SS_Triplicate_EUF B | Mar 31, 2022 | | AUS Leachate - Reagent Water | M22-Ap0001204 | X | | X | |
| 12 | SX_OB_20220331_08_03_SS_Primary_EUF B | Mar 31, 2022 | | AUS Leachate - Reagent Water | M22-Ap0001205 | X | | X | |
| 13 | SX_OB_20220331_21_00_SS_Primary_EUF B | Mar 31, 2022 | | AUS Leachate - Reagent Water | M22-Ap0001206 | X | | X | |
| 14 | SX_OB_20220401_00_20_S | Apr 01, 2022 | | AUS Leachate - Reagent | M22-Ap0001207 | X | | X | |

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SA 5063

**Project Name:** 20220401044227-Eurofin-13
**Project ID:** JC0927

**Order No.:**
**Report #:** 876487
**Phone:** 08 8338 1009
**Fax:**

**Received:** Apr 1, 2022 2:17 PM
**Due:** Apr 8, 2022
**Priority:** 5 Day
**Contact Name:** - ALL SPOIL REPORTS WGTP

**Eurofins Analytical Services Manager : Michael Cassidy**

| Sample Detail | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| | S_Primary_EU F B | | | Water | | | | | |
| 15 | SX_OB_20220 401_04_12_S S_Primary_EU F B | Apr 01, 2022 | | AUS Leachate - Reagent Water | M22-Ap0001208 | X | | X | |
| **Test Counts** | | | | | | 10 | 5 | 15 | 5 |

eurofins | Environment Testing

## 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.

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### 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** | | | | | | | |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | | | | |
| Perfluorobutanoic acid (PFBA) | ug/L | < 0.05 | | | 0.05 | Pass | |
| Perfluoropentanoic acid (PFPeA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorohexanoic acid (PFHxA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluoroheptanoic acid (PFHpA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorooctanoic acid (PFOA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorononanoic acid (PFNA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorodecanoic acid (PFDA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluoroundecanoic acid (PFUnDA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorododecanoic acid (PFDoDA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorotridecanoic acid (PFTrDA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorotetradecanoic acid (PFTeDA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| **Method Blank** | | | | | | | |
| **Perfluoroalkyl sulfonamido substances** | | | | | | | |
| Perfluorooctane sulfonamide (FOSA) | ug/L | < 0.05 | | | 0.05 | Pass | |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) | ug/L | < 0.05 | | | 0.05 | Pass | |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) | ug/L | < 0.05 | | | 0.05 | Pass | |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) | ug/L | < 0.05 | | | 0.05 | Pass | |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) | ug/L | < 0.05 | | | 0.05 | Pass | |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) | ug/L | < 0.05 | | | 0.05 | Pass | |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) | ug/L | < 0.05 | | | 0.05 | Pass | |
| **Method Blank** | | | | | | | |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorononanesulfonic acid (PFNS) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluoropropanesulfonic acid (PFPrS) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluoropentanesulfonic acid (PFPeS) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorohexanesulfonic acid (PFHxS) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluoroheptanesulfonic acid (PFHpS) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorooctanesulfonic acid (PFOS) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorodecanesulfonic acid (PFDS) | ug/L | < 0.01 | | | 0.01 | Pass | |
| **Method Blank** | | | | | | | |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) | ug/L | < 0.05 | | | 0.05 | Pass | |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | | | | |
| Perfluorobutanoic acid (PFBA) | % | 111 | | | 50-150 | Pass | |
| Perfluoropentanoic acid (PFPeA) | % | 118 | | | 50-150 | Pass | |
| Perfluorohexanoic acid (PFHxA) | % | 111 | | | 50-150 | Pass | |
| Perfluoroheptanoic acid (PFHpA) | % | 103 | | | 50-150 | Pass | |
| Perfluorooctanoic acid (PFOA) | % | 111 | | | 50-150 | Pass | |
| Perfluorononanoic acid (PFNA) | % | 101 | | | 50-150 | Pass | |
| Perfluorodecanoic acid (PFDA) | % | 120 | | | 50-150 | Pass | |
| Perfluoroundecanoic acid (PFUnDA) | % | 121 | | | 50-150 | Pass | |
| Perfluorododecanoic acid (PFDoDA) | % | 128 | | | 50-150 | Pass | |
| Perfluorotridecanoic acid (PFTrDA) | % | 128 | | | 50-150 | Pass | |
| Perfluorotetradecanoic acid (PFTeDA) | % | 124 | | | 50-150 | Pass | |

| Test | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|
| **LCS - % Recovery** | | | | | | | |
| **Perfluoroalkyl sulfonamido substances** | | | | | | | |
| Perfluorooctane sulfonamide (FOSA) | % | 124 | | | 50-150 | Pass | |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) | % | 131 | | | 50-150 | Pass | |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) | % | 138 | | | 50-150 | Pass | |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) | % | 108 | | | 50-150 | Pass | |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) | % | 121 | | | 50-150 | Pass | |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) | % | 101 | | | 50-150 | Pass | |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) | % | 129 | | | 50-150 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | % | 113 | | | 50-150 | Pass | |
| Perfluorononanesulfonic acid (PFNS) | % | 118 | | | 50-150 | Pass | |
| Perfluoropropanesulfonic acid (PFPrS) | % | 118 | | | 50-150 | Pass | |
| Perfluoropentanesulfonic acid (PFPeS) | % | 112 | | | 50-150 | Pass | |
| Perfluorohexanesulfonic acid (PFHxS) | % | 119 | | | 50-150 | Pass | |
| Perfluoroheptanesulfonic acid (PFHpS) | % | 117 | | | 50-150 | Pass | |
| Perfluorooctanesulfonic acid (PFOS) | % | 120 | | | 50-150 | Pass | |
| Perfluorodecanesulfonic acid (PFDS) | % | 97 | | | 50-150 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) | % | 134 | | | 50-150 | Pass | |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) | % | 117 | | | 50-150 | Pass | |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) | % | 114 | | | 50-150 | Pass | |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) | % | 124 | | | 50-150 | Pass | |

| Test | Lab Sample ID | QA Source | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|---|---|
| **Duplicate** | | | | | | | | | |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | Result 1 | Result 2 | RPD | | | |
| Perfluorobutanoic acid (PFBA) | M22-Ap0001200 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Perfluoropentanoic acid (PFPeA) | M22-Ap0001200 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorohexanoic acid (PFHxA) | M22-Ap0001200 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluoroheptanoic acid (PFHpA) | M22-Ap0001200 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorooctanoic acid (PFOA) | M22-Ap0001200 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorononanoic acid (PFNA) | M22-Ap0001200 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorodecanoic acid (PFDA) | M22-Ap0001200 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluoroundecanoic acid (PFUnDA) | M22-Ap0001200 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorododecanoic acid (PFDoDA) | M22-Ap0001200 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorotridecanoic acid (PFTrDA) | M22-Ap0001200 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorotetradecanoic acid (PFTeDA) | M22-Ap0001200 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Perfluoroalkyl sulfonamido substances** | | | | Result 1 | Result 2 | RPD | | | |
| Perfluorooctane sulfonamide (FOSA) | M22-Ap0001200 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) | M22-Ap0001200 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) | M22-Ap0001200 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) | M22-Ap0001200 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) | M22-Ap0001200 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |

| Duplicate | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluoroalkyl sulfonamido substances** | | | | Result 1 | Result 2 | RPD | | | |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) | M22-Ap0001200 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) | M22-Ap0001200 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | Result 1 | Result 2 | RPD | | | |
| Perfluorobutanesulfonic acid (PFBS) | M22-Ap0001200 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorononanesulfonic acid (PFNS) | M22-Ap0001200 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluoropropanesulfonic acid (PFPrS) | M22-Ap0001200 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluoropentanesulfonic acid (PFPeS) | M22-Ap0001200 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorohexanesulfonic acid (PFHxS) | M22-Ap0001200 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluoroheptanesulfonic acid (PFHpS) | M22-Ap0001200 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorooctanesulfonic acid (PFOS) | M22-Ap0001200 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorodecanesulfonic acid (PFDS) | M22-Ap0001200 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | Result 1 | Result 2 | RPD | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) | M22-Ap0001200 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) | M22-Ap0001200 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) | M22-Ap0001200 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) | M22-Ap0001200 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | Result 1 | Result 2 | RPD | | | |
| Perfluorobutanoic acid (PFBA) | M22-Ap0001205 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Perfluoropentanoic acid (PFPeA) | M22-Ap0001205 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorohexanoic acid (PFHxA) | M22-Ap0001205 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluoroheptanoic acid (PFHpA) | M22-Ap0001205 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorooctanoic acid (PFOA) | M22-Ap0001205 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorononanoic acid (PFNA) | M22-Ap0001205 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorodecanoic acid (PFDA) | M22-Ap0001205 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluoroundecanoic acid (PFUnDA) | M22-Ap0001205 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorododecanoic acid (PFDoDA) | M22-Ap0001205 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorotridecanoic acid (PFTrDA) | M22-Ap0001205 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorotetradecanoic acid (PFTeDA) | M22-Ap0001205 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |

| Duplicate | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluoroalkyl sulfonamido substances** | | | | Result 1 | Result 2 | RPD | | | |
| Perfluorooctane sulfonamide (FOSA) | M22-Ap0001205 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) | M22-Ap0001205 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) | M22-Ap0001205 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) | M22-Ap0001205 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) | M22-Ap0001205 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) | M22-Ap0001205 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) | M22-Ap0001205 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | Result 1 | Result 2 | RPD | | | |
| Perfluorobutanesulfonic acid (PFBS) | M22-Ap0001205 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorononanesulfonic acid (PFNS) | M22-Ap0001205 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluoropropanesulfonic acid (PFPrS) | M22-Ap0001205 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluoropentanesulfonic acid (PFPeS) | M22-Ap0001205 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorohexanesulfonic acid (PFHxS) | M22-Ap0001205 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluoroheptanesulfonic acid (PFHpS) | M22-Ap0001205 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorooctanesulfonic acid (PFOS) | M22-Ap0001205 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorodecanesulfonic acid (PFDS) | M22-Ap0001205 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | Result 1 | Result 2 | RPD | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) | M22-Ap0001205 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) | M22-Ap0001205 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) | M22-Ap0001205 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) | M22-Ap0001205 | CP | ug/L | < 0.01 | < 0.01 | <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 |
|---|---|
| C01 | Leachate Fluid Key: 1 - pH 5.0; 2 - pH 2.9; 3 - pH 9.2; 4 - Reagent (DI) water; 5 - Client sample, 6 - other |
| N11 | Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds. |
| N15 | Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation). |

### Authorised by:

| | |
|---|---|
| Catherine Wilson | Analytical Services Manager |
| Mary Makarios | Senior Analyst (NSW) |
| Joseph Edouard | Senior Analyst (VIC) |

**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.

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Environment Testing

**Agon Environmental Pty Ltd - VIC**
**3/224 Glen Osmond Road**
**Fullarton**
**SA 5063**

**NATA Accredited**
**Accreditation Number 1261**
**Site Number 1254**

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

| | |
|---|---|
| **Attention:** | **- ALL SPOIL REPORTS WGTP Mother Hub** |
| **Report** | **876487-S** |
| Project name | 20220401044227-Eurofin-13 |
| Project ID | JC0927 |
| Received Date | Apr 01, 2022 |

| **Client Sample ID** | | | **SX_OB_20220331_07_51_SS_Triplicate_EUF** | **SX_OB_20220331_08_03_SS_Primary_EUF** | **SX_OB_20220331_21_00_SS_Primary_EUF** | **SX_OB_20220401_00_20_SS_Primary_EUF** |
|---|---|---|---|---|---|---|
| **Sample Matrix** | | | **Soil** | **Soil** | **Soil** | **Soil** |
| **Eurofins Sample No.** | | | **M22-Ap0001194** | **M22-Ap0001195** | **M22-Ap0001196** | **M22-Ap0001197** |
| **Date Sampled** | | | **Mar 31, 2022** | **Mar 31, 2022** | **Mar 31, 2022** | **Apr 01, 2022** |
| Test/Reference | LOR | Unit | | | | |
| **Total Recoverable Hydrocarbons** | | | | | | |
| TRH C6-C9 | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| TRH C10-C14 | 20 | mg/kg | 52 | 46 | < 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 | 52 | < 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 | 78 | 69 | < 50 | < 50 |
| TRH >C10-C16 less Naphthalene (F2)[N01] | 50 | mg/kg | 78 | 69 | < 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 |
| **Volatile Organics** | | | | | | |
| Hexachlorobutadiene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| **Volatile Organics** | | | | | | |
| 1.1-Dichloroethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.2.4-Trichlorobenzene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.1-Dichloroethene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.1.1-Trichloroethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.1.1.2-Tetrachloroethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.1.2-Trichloroethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.1.2.2-Tetrachloroethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.2-Dibromoethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.2-Dichlorobenzene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.2-Dichloroethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.2-Dichloropropane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.2.3-Trichloropropane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.2.4-Trimethylbenzene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.3-Dichlorobenzene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.3-Dichloropropane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.3.5-Trimethylbenzene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.4-Dichlorobenzene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |

eurofins | Environment Testing

| Client Sample ID | | | SX_OB_20220331_07_51_SS_Triplicate_EUF | SX_OB_20220331_08_03_SS_Primary_EUF | SX_OB_20220331_21_00_SS_Primary_EUF | SX_OB_20220401_00_20_SS_Primary_EUF |
|---|---|---|---|---|---|---|
| **Sample Matrix** | | | Soil | Soil | Soil | Soil |
| **Eurofins Sample No.** | | | M22-Ap0001194 | M22-Ap0001195 | M22-Ap0001196 | M22-Ap0001197 |
| **Date Sampled** | | | Mar 31, 2022 | Mar 31, 2022 | Mar 31, 2022 | Apr 01, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Volatile Organics** | | | | | | |
| 2-Butanone (MEK) | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 2-Propanone (Acetone) | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 4-Chlorotoluene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 4-Methyl-2-pentanone (MIBK) | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Allyl chloride | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Bromobenzene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Bromochloromethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Bromodichloromethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Bromoform | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Bromomethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Carbon disulfide | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Carbon Tetrachloride | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Chlorobenzene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Chloroethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Chloroform | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Chloromethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| cis-1.2-Dichloroethene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| cis-1.3-Dichloropropene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Dibromochloromethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Dibromomethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Dichlorodifluoromethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Ethylbenzene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Iodomethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Isopropyl benzene (Cumene) | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| m&p-Xylenes | 0.2 | mg/kg | < 0.2 | < 0.2 | < 0.2 | < 0.2 |
| Methylene Chloride | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| o-Xylene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Styrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Tetrachloroethene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Toluene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| trans-1.2-Dichloroethene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| trans-1.3-Dichloropropene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Trichloroethene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Trichlorofluoromethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Vinyl chloride | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Xylenes - Total* | 0.3 | mg/kg | < 0.3 | < 0.3 | < 0.3 | < 0.3 |
| Total MAH* | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Vic EPA IWRG 621 CHC (Total)* | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Vic EPA IWRG 621 Other CHC (Total)* | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 4-Bromofluorobenzene (surr.) | 1 | % | 51 | 56 | 83 | 58 |
| Toluene-d8 (surr.) | 1 | % | 71 | 88 | 62 | 66 |
| **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 |

Environment Testing

| Client Sample ID | | | SX_OB_20220331_07_51_SS_Triplicate_EUF | SX_OB_20220331_08_03_SS_Primary_EUF | SX_OB_20220331_21_00_SS_Primary_EUF | SX_OB_20220401_00_20_SS_Primary_EUF |
|---|---|---|---|---|---|---|
| **Sample Matrix** | | | Soil | Soil | Soil | Soil |
| **Eurofins Sample No.** | | | M22-Ap0001194 | M22-Ap0001195 | M22-Ap0001196 | M22-Ap0001197 |
| **Date Sampled** | | | Mar 31, 2022 | Mar 31, 2022 | Mar 31, 2022 | Apr 01, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | |
| 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 | % | 148 | 97 | 51 | 70 |
| p-Terphenyl-d14 (surr.) | 1 | % | 56 | 50 | 57 | 69 |
| **Organochlorine Pesticides** | | | | | | |
| Chlordanes - Total | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 4.4'-DDD | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| 4.4'-DDE | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| 4.4'-DDT | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| a-HCH | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Aldrin | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| b-HCH | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| d-HCH | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Dieldrin | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Endosulfan I | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Endosulfan II | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Endosulfan sulphate | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Endrin | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Endrin aldehyde | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Endrin ketone | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| g-HCH (Lindane) | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Heptachlor | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Heptachlor epoxide | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Hexachlorobenzene | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Methoxychlor | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Toxaphene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Aldrin and Dieldrin (Total)* | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| DDT + DDE + DDD (Total)* | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Vic EPA IWRG 621 OCP (Total)* | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Vic EPA IWRG 621 Other OCP (Total)* | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Dibutylchlorendate (surr.) | 1 | % | 129 | 81 | 50 | 72 |
| Tetrachloro-m-xylene (surr.) | 1 | % | 61 | 118 | 66 | 103 |

| Client Sample ID | | | SX_OB_20220331_07_51_SS_Triplicate_EUF | SX_OB_20220331_08_03_SS_Primary_EUF | SX_OB_20220331_21_00_SS_Primary_EUF | SX_OB_20220401_00_20_SS_Primary_EUF |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | M22-Ap0001194 | M22-Ap0001195 | M22-Ap0001196 | M22-Ap0001197 |
| Date Sampled | | | Mar 31, 2022 | Mar 31, 2022 | Mar 31, 2022 | Apr 01, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Polychlorinated Biphenyls** | | | | | | |
| Aroclor-1016 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Aroclor-1221 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Aroclor-1232 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Aroclor-1242 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Aroclor-1248 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Aroclor-1254 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Aroclor-1260 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Total PCB* | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Dibutylchlorendate (surr.) | 1 | % | 129 | 81 | 50 | 72 |
| Tetrachloro-m-xylene (surr.) | 1 | % | 61 | 118 | 66 | 103 |
| **Phenols (Halogenated)** | | | | | | |
| 2-Chlorophenol | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 2.4-Dichlorophenol | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 2.4.5-Trichlorophenol | 1 | mg/kg | < 1 | < 1 | < 1 | < 1 |
| 2.4.6-Trichlorophenol | 1 | mg/kg | < 1 | < 1 | < 1 | < 1 |
| 2.6-Dichlorophenol | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 4-Chloro-3-methylphenol | 1 | mg/kg | < 1 | < 1 | < 1 | < 1 |
| Pentachlorophenol | 1 | mg/kg | < 1 | < 1 | < 1 | < 1 |
| Tetrachlorophenols - Total | 10 | mg/kg | < 10 | < 10 | < 10 | < 10 |
| Total Halogenated Phenol* | 1 | mg/kg | < 1 | < 1 | < 1 | < 1 |
| **Phenols (non-Halogenated)** | | | | | | |
| 2-Cyclohexyl-4.6-dinitrophenol | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| 2-Methyl-4.6-dinitrophenol | 5 | mg/kg | < 5 | < 5 | < 5 | < 5 |
| 2-Nitrophenol | 1.0 | mg/kg | < 1 | < 1 | < 1 | < 1 |
| 2.4-Dimethylphenol | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 2.4-Dinitrophenol | 5 | mg/kg | < 5 | < 5 | < 5 | < 5 |
| 2-Methylphenol (o-Cresol) | 0.2 | mg/kg | < 0.2 | < 0.2 | < 0.2 | < 0.2 |
| 3&4-Methylphenol (m&p-Cresol) | 0.4 | mg/kg | < 0.4 | < 0.4 | < 0.4 | < 0.4 |
| Total cresols* | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 4-Nitrophenol | 5 | mg/kg | < 5 | < 5 | < 5 | < 5 |
| Dinoseb | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| Phenol | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Phenol-d6 (surr.) | 1 | % | Q09int | Q09int | 93 | 69 |
| Total Non-Halogenated Phenol* | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| | | | | | | |
| Chromium (hexavalent) | 1 | mg/kg | < 1 | < 1 | < 1 | < 1 |
| Cyanide (total) | 5 | mg/kg | < 5 | < 5 | < 5 | < 5 |
| Fluoride (Total) | 100 | mg/kg | 440 | 420 | 400 | 390 |
| pH (1:5 Aqueous extract at 25°C as rec.) | 0.1 | pH Units | 8.7 | 8.9 | 8.4 | 8.6 |
| % Moisture | 1 | % | 24 | 28 | 28 | 26 |
| **Heavy Metals** | | | | | | |
| Arsenic | 2 | mg/kg | 31 | 26 | 21 | 23 |
| Cadmium | 0.4 | mg/kg | < 0.4 | < 0.4 | < 0.4 | < 0.4 |
| Chromium | 5 | mg/kg | 130 | 120 | 150 | 160 |
| Copper | 5 | mg/kg | 59 | 52 | 65 | 71 |
| Lead | 5 | mg/kg | < 5 | < 5 | < 5 | < 5 |
| Mercury | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |

| Client Sample ID | | | SX_OB_20220331_07_51_SS_Triplicate_EUF | SX_OB_20220331_08_03_SS_Primary_EUF | SX_OB_20220331_21_00_SS_Primary_EUF | SX_OB_20220401_00_20_SS_Primary_EUF |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | M22-Ap0001194 | M22-Ap0001195 | M22-Ap0001196 | M22-Ap0001197 |
| Date Sampled | | | Mar 31, 2022 | Mar 31, 2022 | Mar 31, 2022 | Apr 01, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Heavy Metals** | | | | | | |
| Molybdenum | 5 | mg/kg | < 5 | < 5 | < 5 | < 5 |
| Nickel | 5 | mg/kg | 190 | 180 | 210 | 220 |
| Selenium | 2 | mg/kg | < 2 | < 2 | < 2 | < 2 |
| Silver | 2 | mg/kg | < 2 | < 2 | < 2 | < 2 |
| Tin | 10 | mg/kg | < 10 | < 10 | < 10 | < 10 |
| Zinc | 5 | mg/kg | 120 | 100 | 120 | 130 |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | | | |
| Perfluorobutanoic acid (PFBA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluoropentanoic acid (PFPeA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluorohexanoic acid (PFHxA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluoroheptanoic acid (PFHpA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluorooctanoic acid (PFOA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluorononanoic acid (PFNA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluorodecanoic acid (PFDA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluoroundecanoic acid (PFUnDA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluorododecanoic acid (PFDoDA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluorotridecanoic acid (PFTrDA)[N15] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluorotetradecanoic acid (PFTeDA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| 13C4-PFBA (surr.) | 1 | % | 95 | 94 | 88 | 88 |
| 13C5-PFPeA (surr.) | 1 | % | 97 | 84 | 85 | 83 |
| 13C5-PFHxA (surr.) | 1 | % | 93 | 96 | 79 | 78 |
| 13C4-PFHpA (surr.) | 1 | % | 90 | 96 | 90 | 84 |
| 13C8-PFOA (surr.) | 1 | % | 92 | 102 | 101 | 86 |
| 13C5-PFNA (surr.) | 1 | % | 97 | 100 | 103 | 88 |
| 13C6-PFDA (surr.) | 1 | % | 138 | 123 | 118 | 109 |
| 13C2-PFUnDA (surr.) | 1 | % | 103 | 124 | 117 | 111 |
| 13C2-PFDoDA (surr.) | 1 | % | 95 | 104 | 87 | 92 |
| 13C2-PFTeDA (surr.) | 1 | % | 83 | 82 | 73 | 81 |
| **Perfluoroalkyl sulfonamido substances** | | | | | | |
| Perfluorooctane sulfonamide (FOSA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11] | 10 | ug/kg | < 10 | < 10 | < 10 | < 10 |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11] | 10 | ug/kg | < 10 | < 10 | < 10 | < 10 |
| 13C8-FOSA (surr.) | 1 | % | 101 | 97 | 92 | 93 |
| D3-N-MeFOSA (surr.) | 1 | % | 89 | 92 | 82 | 81 |
| D5-N-EtFOSA (surr.) | 1 | % | 101 | 101 | 93 | 91 |
| D7-N-MeFOSE (surr.) | 1 | % | 93 | 82 | 78 | 85 |
| D9-N-EtFOSE (surr.) | 1 | % | 89 | 89 | 83 | 82 |
| D5-N-EtFOSAA (surr.) | 1 | % | 117 | 121 | 96 | 110 |
| D3-N-MeFOSAA (surr.) | 1 | % | 94 | 104 | 99 | 89 |

| Client Sample ID | | | SX_OB_20220331_07_51_SS_Triplicate_EUF | SX_OB_20220331_08_03_SS_Primary_EUF | SX_OB_20220331_21_00_SS_Primary_EUF | SX_OB_20220401_00_20_SS_Primary_EUF |
|---|---|---|---|---|---|---|
| **Sample Matrix** | | | Soil | Soil | Soil | Soil |
| **Eurofins Sample No.** | | | M22-Ap0001194 | M22-Ap0001195 | M22-Ap0001196 | M22-Ap0001197 |
| **Date Sampled** | | | Mar 31, 2022 | Mar 31, 2022 | Mar 31, 2022 | Apr 01, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | | | |
| Perfluorobutanesulfonic acid (PFBS)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluorononanesulfonic acid (PFNS)[N15] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluoropropanesulfonic acid (PFPrS)[N15] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluoropentanesulfonic acid (PFPeS)[N15] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluorohexanesulfonic acid (PFHxS)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluoroheptanesulfonic acid (PFHpS)[N15] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluorooctanesulfonic acid (PFOS)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluorodecanesulfonic acid (PFDS)[N15] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| 13C3-PFBS (surr.) | 1 | % | 109 | 102 | 101 | 105 |
| 18O2-PFHxS (surr.) | 1 | % | 113 | 119 | 81 | 104 |
| 13C8-PFOS (surr.) | 1 | % | 93 | 105 | 101 | 90 |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)[N11] | 10 | ug/kg | < 10 | < 10 | < 10 | < 10 |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| 13C2-4:2 FTSA (surr.) | 1 | % | 93 | 96 | 99 | 98 |
| 13C2-6:2 FTSA (surr.) | 1 | % | 113 | 106 | 144 | 103 |
| 13C2-8:2 FTSA (surr.) | 1 | % | 106 | 108 | 103 | 108 |
| 13C2-10:2 FTSA (surr.) | 1 | % | 91 | 92 | 55 | 75 |
| **PFASs Summations** | | | | | | |
| Sum (PFHxS + PFOS)* | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Sum of US EPA PFAS (PFOS + PFOA)* | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Sum of enHealth PFAS (PFHxS + PFOS + PFOA)* | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Sum of WA DWER PFAS (n=10)* | 10 | ug/kg | < 10 | < 10 | < 10 | < 10 |
| Sum of PFASs (n=30)* | 50 | ug/kg | < 50 | < 50 | < 50 | < 50 |

| Client Sample ID | | | SX_OB_20220401_04_12_SS_Primary_EUF |
|---|---|---|---|
| **Sample Matrix** | | | Soil |
| **Eurofins Sample No.** | | | M22-Ap0001198 |
| **Date Sampled** | | | Apr 01, 2022 |
| Test/Reference | LOR | Unit | |
| **Total Recoverable Hydrocarbons** | | | |
| TRH C6-C9 | 20 | mg/kg | < 20 |
| TRH C10-C14 | 20 | mg/kg | 56 |
| TRH C15-C28 | 50 | mg/kg | < 50 |
| TRH C29-C36 | 50 | mg/kg | < 50 |
| TRH C10-C36 (Total) | 50 | mg/kg | 56 |
| Naphthalene[N02] | 0.5 | mg/kg | < 0.5 |
| TRH C6-C10 | 20 | mg/kg | < 20 |
| TRH C6-C10 less BTEX (F1)[N04] | 20 | mg/kg | < 20 |

| Client Sample ID | | | SX_OB_20220401_04_12_SS_Primary_EUF |
|---|---|---|---|
| Sample Matrix | | | Soil |
| Eurofins Sample No. | | | M22-Ap0001198 |
| Date Sampled | | | Apr 01, 2022 |
| Test/Reference | LOR | Unit | |
| **Total Recoverable Hydrocarbons** | | | |
| TRH >C10-C16 | 50 | mg/kg | 85 |
| TRH >C10-C16 less Naphthalene (F2)[N01] | 50 | mg/kg | 85 |
| TRH >C16-C34 | 100 | mg/kg | < 100 |
| TRH >C34-C40 | 100 | mg/kg | < 100 |
| TRH >C10-C40 (total)* | 100 | mg/kg | < 100 |
| **Volatile Organics** | | | |
| Hexachlorobutadiene | 0.5 | mg/kg | < 0.5 |
| **Volatile Organics** | | | |
| 1.1-Dichloroethane | 0.5 | mg/kg | < 0.5 |
| 1.2.4-Trichlorobenzene | 0.5 | mg/kg | < 0.5 |
| 1.1-Dichloroethene | 0.5 | mg/kg | < 0.5 |
| 1.1.1-Trichloroethane | 0.5 | mg/kg | < 0.5 |
| 1.1.1.2-Tetrachloroethane | 0.5 | mg/kg | < 0.5 |
| 1.1.2-Trichloroethane | 0.5 | mg/kg | < 0.5 |
| 1.1.2.2-Tetrachloroethane | 0.5 | mg/kg | < 0.5 |
| 1.2-Dibromoethane | 0.5 | mg/kg | < 0.5 |
| 1.2-Dichlorobenzene | 0.5 | mg/kg | < 0.5 |
| 1.2-Dichloroethane | 0.5 | mg/kg | < 0.5 |
| 1.2-Dichloropropane | 0.5 | mg/kg | < 0.5 |
| 1.2.3-Trichloropropane | 0.5 | mg/kg | < 0.5 |
| 1.2.4-Trimethylbenzene | 0.5 | mg/kg | < 0.5 |
| 1.3-Dichlorobenzene | 0.5 | mg/kg | < 0.5 |
| 1.3-Dichloropropane | 0.5 | mg/kg | < 0.5 |
| 1.3.5-Trimethylbenzene | 0.5 | mg/kg | < 0.5 |
| 1.4-Dichlorobenzene | 0.5 | mg/kg | < 0.5 |
| 2-Butanone (MEK) | 0.5 | mg/kg | < 0.5 |
| 2-Propanone (Acetone) | 0.5 | mg/kg | < 0.5 |
| 4-Chlorotoluene | 0.5 | mg/kg | < 0.5 |
| 4-Methyl-2-pentanone (MIBK) | 0.5 | mg/kg | < 0.5 |
| Allyl chloride | 0.5 | mg/kg | < 0.5 |
| Benzene | 0.1 | mg/kg | < 0.1 |
| Bromobenzene | 0.5 | mg/kg | < 0.5 |
| Bromochloromethane | 0.5 | mg/kg | < 0.5 |
| Bromodichloromethane | 0.5 | mg/kg | < 0.5 |
| Bromoform | 0.5 | mg/kg | < 0.5 |
| Bromomethane | 0.5 | mg/kg | < 0.5 |
| Carbon disulfide | 0.5 | mg/kg | < 0.5 |
| Carbon Tetrachloride | 0.5 | mg/kg | < 0.5 |
| Chlorobenzene | 0.5 | mg/kg | < 0.5 |
| Chloroethane | 0.5 | mg/kg | < 0.5 |
| Chloroform | 0.5 | mg/kg | < 0.5 |
| Chloromethane | 0.5 | mg/kg | < 0.5 |
| cis-1.2-Dichloroethene | 0.5 | mg/kg | < 0.5 |
| cis-1.3-Dichloropropene | 0.5 | mg/kg | < 0.5 |
| Dibromochloromethane | 0.5 | mg/kg | < 0.5 |
| Dibromomethane | 0.5 | mg/kg | < 0.5 |
| Dichlorodifluoromethane | 0.5 | mg/kg | < 0.5 |

| Client Sample ID | | | SX_OB_20220401_04_12_SS_Primary_EUF |
|---|---|---|---|
| Sample Matrix | | | Soil |
| Eurofins Sample No. | | | M22-Ap0001198 |
| Date Sampled | | | Apr 01, 2022 |
| Test/Reference | LOR | Unit | |
| **Volatile Organics** | | | |
| Ethylbenzene | 0.1 | mg/kg | < 0.1 |
| Iodomethane | 0.5 | mg/kg | < 0.5 |
| Isopropyl benzene (Cumene) | 0.5 | mg/kg | < 0.5 |
| m&p-Xylenes | 0.2 | mg/kg | < 0.2 |
| Methylene Chloride | 0.5 | mg/kg | < 0.5 |
| o-Xylene | 0.1 | mg/kg | < 0.1 |
| Styrene | 0.5 | mg/kg | < 0.5 |
| Tetrachloroethene | 0.5 | mg/kg | < 0.5 |
| Toluene | 0.1 | mg/kg | < 0.1 |
| trans-1.2-Dichloroethene | 0.5 | mg/kg | < 0.5 |
| trans-1.3-Dichloropropene | 0.5 | mg/kg | < 0.5 |
| Trichloroethene | 0.5 | mg/kg | < 0.5 |
| Trichlorofluoromethane | 0.5 | mg/kg | < 0.5 |
| Vinyl chloride | 0.5 | mg/kg | < 0.5 |
| Xylenes - Total* | 0.3 | mg/kg | < 0.3 |
| Total MAH* | 0.5 | mg/kg | < 0.5 |
| Vic EPA IWRG 621 CHC (Total)* | 0.5 | mg/kg | < 0.5 |
| Vic EPA IWRG 621 Other CHC (Total)* | 0.5 | mg/kg | < 0.5 |
| 4-Bromofluorobenzene (surr.) | 1 | % | 66 |
| Toluene-d8 (surr.) | 1 | % | 105 |
| **Polycyclic Aromatic Hydrocarbons** | | | |
| Benzo(a)pyrene TEQ (lower bound) * | 0.5 | mg/kg | < 0.5 |
| Benzo(a)pyrene TEQ (medium bound) * | 0.5 | mg/kg | 0.6 |
| Benzo(a)pyrene TEQ (upper bound) * | 0.5 | mg/kg | 1.2 |
| Acenaphthene | 0.5 | mg/kg | < 0.5 |
| Acenaphthylene | 0.5 | mg/kg | < 0.5 |
| Anthracene | 0.5 | mg/kg | < 0.5 |
| Benz(a)anthracene | 0.5 | mg/kg | < 0.5 |
| Benzo(a)pyrene | 0.5 | mg/kg | < 0.5 |
| Benzo(b&j)fluoranthene[N07] | 0.5 | mg/kg | < 0.5 |
| Benzo(g.h.i)perylene | 0.5 | mg/kg | < 0.5 |
| Benzo(k)fluoranthene | 0.5 | mg/kg | < 0.5 |
| Chrysene | 0.5 | mg/kg | < 0.5 |
| Dibenz(a.h)anthracene | 0.5 | mg/kg | < 0.5 |
| Fluoranthene | 0.5 | mg/kg | < 0.5 |
| Fluorene | 0.5 | mg/kg | < 0.5 |
| Indeno(1.2.3-cd)pyrene | 0.5 | mg/kg | < 0.5 |
| Naphthalene | 0.5 | mg/kg | < 0.5 |
| Phenanthrene | 0.5 | mg/kg | < 0.5 |
| Pyrene | 0.5 | mg/kg | < 0.5 |
| Total PAH* | 0.5 | mg/kg | < 0.5 |
| 2-Fluorobiphenyl (surr.) | 1 | % | 137 |
| p-Terphenyl-d14 (surr.) | 1 | % | 50 |

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| Client Sample ID | | | SX_OB_20220401_04_12_SS_Primary_EUF |
|---|---|---|---|
| Sample Matrix | | | Soil |
| Eurofins Sample No. | | | M22-Ap0001198 |
| Date Sampled | | | Apr 01, 2022 |
| Test/Reference | LOR | Unit | |
| **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 |
| 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 | % | 120 |
| Tetrachloro-m-xylene (surr.) | 1 | % | 56 |
| **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 | % | 120 |
| Tetrachloro-m-xylene (surr.) | 1 | % | 56 |
| **Phenols (Halogenated)** | | | |
| 2-Chlorophenol | 0.5 | mg/kg | < 0.5 |
| 2.4-Dichlorophenol | 0.5 | mg/kg | < 0.5 |
| 2.4.5-Trichlorophenol | 1 | mg/kg | < 1 |
| 2.4.6-Trichlorophenol | 1 | mg/kg | < 1 |
| 2.6-Dichlorophenol | 0.5 | mg/kg | < 0.5 |
| 4-Chloro-3-methylphenol | 1 | mg/kg | < 1 |
| Pentachlorophenol | 1 | mg/kg | < 1 |
| Tetrachlorophenols - Total | 10 | mg/kg | < 10 |
| Total Halogenated Phenol* | 1 | mg/kg | < 1 |

Eurofins Environment Testing

| Client Sample ID | | | SX_OB_20220401_04_12_SS_Primary_EUF |
|---|---|---|---|
| Sample Matrix | | | Soil |
| Eurofins Sample No. | | | M22-Ap0001198 |
| Date Sampled | | | Apr 01, 2022 |
| Test/Reference | LOR | Unit | |
| **Phenols (non-Halogenated)** | | | |
| 2-Cyclohexyl-4.6-dinitrophenol | 20 | mg/kg | < 20 |
| 2-Methyl-4.6-dinitrophenol | 5 | mg/kg | < 5 |
| 2-Nitrophenol | 1.0 | mg/kg | < 1 |
| 2.4-Dimethylphenol | 0.5 | mg/kg | < 0.5 |
| 2.4-Dinitrophenol | 5 | mg/kg | < 5 |
| 2-Methylphenol (o-Cresol) | 0.2 | mg/kg | < 0.2 |
| 3&4-Methylphenol (m&p-Cresol) | 0.4 | mg/kg | < 0.4 |
| Total cresols* | 0.5 | mg/kg | < 0.5 |
| 4-Nitrophenol | 5 | mg/kg | < 5 |
| Dinoseb | 20 | mg/kg | < 20 |
| Phenol | 0.5 | mg/kg | < 0.5 |
| Phenol-d6 (surr.) | 1 | % | [Q09]int |
| Total Non-Halogenated Phenol* | 20 | mg/kg | < 20 |
| | | | |
| Chromium (hexavalent) | 1 | mg/kg | < 1 |
| Cyanide (total) | 5 | mg/kg | < 5 |
| Fluoride (Total) | 100 | mg/kg | 310 |
| pH (1:5 Aqueous extract at 25°C as rec.) | 0.1 | pH Units | 9.1 |
| % Moisture | 1 | % | 30 |
| **Heavy Metals** | | | |
| Arsenic | 2 | mg/kg | 39 |
| Cadmium | 0.4 | mg/kg | < 0.4 |
| Chromium | 5 | mg/kg | 150 |
| Copper | 5 | mg/kg | 64 |
| Lead | 5 | mg/kg | < 5 |
| Mercury | 0.1 | mg/kg | < 0.1 |
| Molybdenum | 5 | mg/kg | < 5 |
| Nickel | 5 | mg/kg | 210 |
| Selenium | 2 | mg/kg | < 2 |
| Silver | 2 | mg/kg | < 2 |
| Tin | 10 | mg/kg | < 10 |
| Zinc | 5 | mg/kg | 130 |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | |
| Perfluorobutanoic acid (PFBA)[N11] | 5 | ug/kg | < 5 |
| Perfluoropentanoic acid (PFPeA)[N11] | 5 | ug/kg | < 5 |
| Perfluorohexanoic acid (PFHxA)[N11] | 5 | ug/kg | < 5 |
| Perfluoroheptanoic acid (PFHpA)[N11] | 5 | ug/kg | < 5 |
| Perfluorooctanoic acid (PFOA)[N11] | 5 | ug/kg | < 5 |
| Perfluorononanoic acid (PFNA)[N11] | 5 | ug/kg | < 5 |
| Perfluorodecanoic acid (PFDA)[N11] | 5 | ug/kg | < 5 |
| Perfluoroundecanoic acid (PFUnDA)[N11] | 5 | ug/kg | < 5 |
| Perfluorododecanoic acid (PFDoDA)[N11] | 5 | ug/kg | < 5 |
| Perfluorotridecanoic acid (PFTrDA)[N15] | 5 | ug/kg | < 5 |
| Perfluorotetradecanoic acid (PFTeDA)[N11] | 5 | ug/kg | < 5 |
| 13C4-PFBA (surr.) | 1 | % | 89 |
| 13C5-PFPeA (surr.) | 1 | % | 59 |
| 13C5-PFHxA (surr.) | 1 | % | 81 |

Eurofins Environment Testing

| Client Sample ID | | | SX_OB_20220401_04_12_SS_Primary_EUF |
|---|---|---|---|
| Sample Matrix | | | Soil |
| Eurofins Sample No. | | | M22-Ap0001198 |
| Date Sampled | | | Apr 01, 2022 |
| Test/Reference | LOR | Unit | |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | |
| 13C4-PFHpA (surr.) | 1 | % | 78 |
| 13C8-PFOA (surr.) | 1 | % | 77 |
| 13C5-PFNA (surr.) | 1 | % | 78 |
| 13C6-PFDA (surr.) | 1 | % | 95 |
| 13C2-PFUnDA (surr.) | 1 | % | 101 |
| 13C2-PFDoDA (surr.) | 1 | % | 89 |
| 13C2-PFTeDA (surr.) | 1 | % | 97 |
| **Perfluoroalkyl sulfonamido substances** | | | |
| Perfluorooctane sulfonamide (FOSA)[N11] | 5 | ug/kg | < 5 |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11] | 5 | ug/kg | < 5 |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11] | 5 | ug/kg | < 5 |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)[N11] | 5 | ug/kg | < 5 |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)[N11] | 5 | ug/kg | < 5 |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11] | 10 | ug/kg | < 10 |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11] | 10 | ug/kg | < 10 |
| 13C8-FOSA (surr.) | 1 | % | 66 |
| D3-N-MeFOSA (surr.) | 1 | % | 94 |
| D5-N-EtFOSA (surr.) | 1 | % | 88 |
| D7-N-MeFOSE (surr.) | 1 | % | 96 |
| D9-N-EtFOSE (surr.) | 1 | % | 98 |
| D5-N-EtFOSAA (surr.) | 1 | % | 87 |
| D3-N-MeFOSAA (surr.) | 1 | % | 83 |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | |
| Perfluorobutanesulfonic acid (PFBS)[N11] | 5 | ug/kg | < 5 |
| Perfluorononanesulfonic acid (PFNS)[N15] | 5 | ug/kg | < 5 |
| Perfluoropropanesulfonic acid (PFPrS)[N15] | 5 | ug/kg | < 5 |
| Perfluoropentanesulfonic acid (PFPeS)[N15] | 5 | ug/kg | < 5 |
| Perfluorohexanesulfonic acid (PFHxS)[N11] | 5 | ug/kg | < 5 |
| Perfluoroheptanesulfonic acid (PFHpS)[N15] | 5 | ug/kg | < 5 |
| Perfluorooctanesulfonic acid (PFOS)[N11] | 5 | ug/kg | < 5 |
| Perfluorodecanesulfonic acid (PFDS)[N15] | 5 | ug/kg | < 5 |
| 13C3-PFBS (surr.) | 1 | % | 78 |
| 18O2-PFHxS (surr.) | 1 | % | 72 |
| 13C8-PFOS (surr.) | 1 | % | 62 |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11] | 5 | ug/kg | < 5 |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)[N11] | 10 | ug/kg | < 10 |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11] | 5 | ug/kg | < 5 |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11] | 5 | ug/kg | < 5 |
| 13C2-4:2 FTSA (surr.) | 1 | % | 93 |
| 13C2-6:2 FTSA (surr.) | 1 | % | 64 |

| Client Sample ID | | | SX_OB_20220401_04_12_SS_Primary_EUF |
|---|---|---|---|
| **Sample Matrix** | | | **Soil** |
| **Eurofins Sample No.** | | | **M22-Ap0001198** |
| **Date Sampled** | | | **Apr 01, 2022** |
| Test/Reference | LOR | Unit | |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | |
| 13C2-8:2 FTSA (surr.) | 1 | % | 115 |
| 13C2-10:2 FTSA (surr.) | 1 | % | 81 |
| **PFASs Summations** | | | |
| Sum (PFHxS + PFOS)* | 5 | ug/kg | < 5 |
| Sum of US EPA PFAS (PFOS + PFOA)* | 5 | ug/kg | < 5 |
| Sum of enHealth PFAS (PFHxS + PFOS + PFOA)* | 5 | ug/kg | < 5 |
| Sum of WA DWER PFAS (n=10)* | 10 | ug/kg | < 10 |
| Sum of PFASs (n=30)* | 50 | ug/kg | < 50 |

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### 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 |
|---|---|---|---|
| IWRG 621 WGTP Suite | | | |
| Total Recoverable Hydrocarbons - 1999 NEPM Fractions | Melbourne | Apr 02, 2022 | 14 Days |
| - Method: LTM-ORG-2010 TRH C6-C40 | | | |
| Total Recoverable Hydrocarbons - 2013 NEPM Fractions | Melbourne | Apr 02, 2022 | 14 Days |
| - Method: LTM-ORG-2010 TRH C6-C40 | | | |
| Total Recoverable Hydrocarbons - 2013 NEPM Fractions | Melbourne | Apr 02, 2022 | 14 Days |
| - Method: LTM-ORG-2010 TRH C6-C40 | | | |
| Volatile Organics | Melbourne | Apr 02, 2022 | 7 Days |
| - Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS | | | |
| Volatile Organics | Melbourne | Apr 02, 2022 | 7 Days |
| - Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260) | | | |
| Polycyclic Aromatic Hydrocarbons | Melbourne | Apr 02, 2022 | 14 Days |
| - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water | | | |
| Organochlorine Pesticides | Melbourne | Apr 02, 2022 | 14 Days |
| - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270) | | | |
| Polychlorinated Biphenyls | Melbourne | Apr 02, 2022 | 28 Days |
| - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082) | | | |
| Phenols (Halogenated) | Melbourne | Apr 02, 2022 | 14 Days |
| - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water | | | |
| Phenols (non-Halogenated) | Melbourne | Apr 02, 2022 | 14 Days |
| - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water | | | |
| Chromium (hexavalent) | Melbourne | Apr 02, 2022 | 28 Days |
| - Method: LTM-INO-4100 Hexavalent Chromium by Spectrometric detection | | | |
| Cyanide (total) | Melbourne | Apr 05, 2022 | 14 Days |
| - Method: LTM-INO-4020 Total Free WAD Cyanide by CFA | | | |
| Fluoride (Total) | Melbourne | Apr 02, 2022 | 28 Days |
| - Method: LTM-INO-4150 Determination of Total Fluoride PART B – ISE | | | |
| pH (1:5 Aqueous extract at 25°C as rec.) | Melbourne | Apr 02, 2022 | 7 Days |
| - Method: LTM-GEN-7090 pH in soil by ISE | | | |
| Metals IWRG 621 : Metals M12 | Melbourne | Apr 02, 2022 | 28 Days |
| - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS | | | |
| - Method: | | | |
| % Moisture | Melbourne | Apr 01, 2022 | 14 Days |
| - Method: LTM-GEN-7080 Moisture | | | |
| Per- and Polyfluoroalkyl Substances (PFASs) | | | |
| Perfluoroalkyl carboxylic acids (PFCAs) | Melbourne | Apr 02, 2022 | 28 Days |
| - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) | | | |
| Perfluoroalkyl sulfonamido substances | Melbourne | Apr 02, 2022 | 28 Days |
| - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) | | | |
| Perfluoroalkyl sulfonic acids (PFSAs) | Melbourne | Apr 02, 2022 | 28 Days |
| - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) | | | |
| n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) | Melbourne | Apr 02, 2022 | 28 Days |
| - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) | | | |
| PFASs Summations | Melbourne | Apr 01, 2022 | |
| - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) | | | |

**Company Name:** Agon Environmental Pty Ltd - VIC
**Address:** 3/224 Glen Osmond Road
Fullarton
SA 5063

**Project Name:** 20220401044227-Eurofin-13
**Project ID:** JC0927

**Order No.:**
**Report #:** 876487
**Phone:** 08 8338 1009
**Fax:**

**Received:** Apr 1, 2022 2:17 PM
**Due:** Apr 8, 2022
**Priority:** 5 Day
**Contact Name:** - ALL SPOIL REPORTS WGTP

**Eurofins Analytical Services Manager : Michael Cassidy**

| **Sample Detail** | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **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 | SX_OB_20220331_07_51_SS_Triplicate_EUF | Mar 31, 2022 | | Soil | M22-Ap0001194 | | X | X | X |
| 2 | SX_OB_20220331_08_03_SS_Primary_EUF | Mar 31, 2022 | | Soil | M22-Ap0001195 | | X | X | X |
| 3 | SX_OB_20220331_21_00_SS_Primary_EUF | Mar 31, 2022 | | Soil | M22-Ap0001196 | | X | X | X |

eurofins Environment Testing

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

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NATA # 1261 Site # 20794

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| | | | | | |
|---|---|---|---|---|---|
| **Company Name:** | Agon Environmental Pty Ltd - VIC | **Order No.:** | | **Received:** | Apr 1, 2022 2:17 PM |
| **Address:** | 3/224 Glen Osmond Road<br>Fullarton<br>SA 5063 | **Report #:** | 876487 | **Due:** | Apr 8, 2022 |
| | | **Phone:** | 08 8338 1009 | **Priority:** | 5 Day |
| | | **Fax:** | | **Contact Name:** | - ALL SPOIL REPORTS WGTP |
| **Project Name:** | 20220401044227-Eurofin-13 | | | | |
| **Project ID:** | JC0927 | | | | |

**Eurofins Analytical Services Manager : Michael Cassidy**

| Sample Detail | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| 4 | SX_OB_20220401_00_20_SS_Primary_EUF | Apr 01, 2022 | | Soil | M22-Ap0001197 | | X | X | X |
| 5 | SX_OB_20220401_04_12_SS_Primary_EUF | Apr 01, 2022 | | Soil | M22-Ap0001198 | | X | X | X |
| 6 | SX_OB_20220331_07_51_SS_Triplicate_EUF A | Mar 31, 2022 | | AUS Leachate - pH 5.0 | M22-Ap0001199 | X | | X | |
| 7 | SX_OB_20220331_08_03_S | Mar 31, 2022 | | AUS Leachate - pH 5.0 | M22-Ap0001200 | X | | X | |

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**Eurofins Analytical Services Manager : Michael Cassidy**

| **Sample Detail** | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| | S_Primary_EU F A | | | | | | | | |
| 8 | SX_OB_20220 331_21_00_S S_Primary_EU F A | Mar 31, 2022 | | AUS Leachate - pH 5.0 | M22-Ap0001201 | X | | X | |
| 9 | SX_OB_20220 401_00_20_S S_Primary_EU F A | Apr 01, 2022 | | AUS Leachate - pH 5.0 | M22-Ap0001202 | X | | X | |
| 10 | SX_OB_20220 401_04_12_S S_Primary_EU F A | Apr 01, 2022 | | AUS Leachate - pH 5.0 | M22-Ap0001203 | X | | X | |

| | | | |
|---|---|---|---|
| **Company Name:** | Agon Environmental Pty Ltd - VIC | **Order No.:** | |
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| | | **Priority:** | 5 Day |
| | | **Contact Name:** | - ALL SPOIL REPORTS WGTP |

**Eurofins Analytical Services Manager : Michael Cassidy**

| Sample Detail | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| 11 | SX_OB_20220331_07_51_SS_Triplicate_EUF B | Mar 31, 2022 | | AUS Leachate - Reagent Water | M22-Ap0001204 | X | | X | |
| 12 | SX_OB_20220331_08_03_SS_Primary_EUF B | Mar 31, 2022 | | AUS Leachate - Reagent Water | M22-Ap0001205 | X | | X | |
| 13 | SX_OB_20220331_21_00_SS_Primary_EUF B | Mar 31, 2022 | | AUS Leachate - Reagent Water | M22-Ap0001206 | X | | X | |
| 14 | SX_OB_20220401_00_20_S | Apr 01, 2022 | | AUS Leachate - Reagent | M22-Ap0001207 | X | | X | |

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**Eurofins Analytical Services Manager : Michael Cassidy**

| **Sample Detail** | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| | S_Primary_EU F B | | | Water | | | | | |
| 15 | SX_OB_20220 401_04_12_S S_Primary_EU F B | Apr 01, 2022 | | AUS Leachate - Reagent Water | M22-Ap0001208 | X | | X | |
| **Test Counts** | | | | | | 10 | 5 | 15 | 5 |

Environment Testing

## 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.

eurofins Environment Testing

**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** | | | | | | | |
| **Volatile Organics** | | | | | | | |
| Hexachlorobutadiene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| **Method Blank** | | | | | | | |
| **Volatile Organics** | | | | | | | |
| 1.1-Dichloroethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.2.4-Trichlorobenzene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.1-Dichloroethene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.1.1-Trichloroethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.1.1.2-Tetrachloroethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.1.2-Trichloroethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.1.2.2-Tetrachloroethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.2-Dibromoethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.2-Dichlorobenzene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.2-Dichloroethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.2-Dichloropropane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.2.3-Trichloropropane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.2.4-Trimethylbenzene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.3-Dichlorobenzene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.3-Dichloropropane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.3.5-Trimethylbenzene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.4-Dichlorobenzene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 2-Butanone (MEK) | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 2-Propanone (Acetone) | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 4-Chlorotoluene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 4-Methyl-2-pentanone (MIBK) | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Allyl chloride | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Benzene | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Bromobenzene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Bromochloromethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Bromodichloromethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Bromoform | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Bromomethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Carbon disulfide | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Carbon Tetrachloride | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Chlorobenzene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Chloroethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Chloroform | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Chloromethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| cis-1.2-Dichloroethene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| cis-1.3-Dichloropropene | mg/kg | < 0.5 | | | 0.5 | Pass | |

| Test | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|
| Dibromochloromethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Dibromomethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Dichlorodifluoromethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Ethylbenzene | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Iodomethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Isopropyl benzene (Cumene) | mg/kg | < 0.5 | | | 0.5 | Pass | |
| m&p-Xylenes | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Methylene Chloride | mg/kg | < 0.5 | | | 0.5 | Pass | |
| o-Xylene | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Styrene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Tetrachloroethene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Toluene | mg/kg | < 0.1 | | | 0.1 | Pass | |
| trans-1.2-Dichloroethene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| trans-1.3-Dichloropropene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Trichloroethene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Trichlorofluoromethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Vinyl chloride | mg/kg | < 0.5 | | | 0.5 | 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 | |
| **Method Blank** | | | | | | | |
| **Organochlorine Pesticides** | | | | | | | |
| Chlordanes - Total | mg/kg | < 0.1 | | | 0.1 | Pass | |
| 4.4'-DDD | mg/kg | < 0.05 | | | 0.05 | Pass | |
| 4.4'-DDE | mg/kg | < 0.05 | | | 0.05 | Pass | |
| 4.4'-DDT | mg/kg | < 0.05 | | | 0.05 | Pass | |
| a-HCH | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Aldrin | mg/kg | < 0.05 | | | 0.05 | Pass | |
| b-HCH | mg/kg | < 0.05 | | | 0.05 | Pass | |
| d-HCH | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Dieldrin | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Endosulfan I | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Endosulfan II | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Endosulfan sulphate | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Endrin | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Endrin aldehyde | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Endrin ketone | mg/kg | < 0.05 | | | 0.05 | Pass | |
| g-HCH (Lindane) | mg/kg | < 0.05 | | | 0.05 | Pass | |

| Test | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|
| Heptachlor | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Heptachlor epoxide | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Hexachlorobenzene | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Methoxychlor | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Toxaphene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| **Method Blank** | | | | | | | |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor-1016 | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Aroclor-1221 | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Aroclor-1232 | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Aroclor-1242 | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Aroclor-1248 | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Aroclor-1254 | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Aroclor-1260 | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Total PCB* | mg/kg | < 0.1 | | | 0.1 | Pass | |
| **Method Blank** | | | | | | | |
| **Phenols (Halogenated)** | | | | | | | |
| 2-Chlorophenol | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 2.4-Dichlorophenol | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 2.4.5-Trichlorophenol | mg/kg | < 1 | | | 1 | Pass | |
| 2.4.6-Trichlorophenol | mg/kg | < 1 | | | 1 | Pass | |
| 2.6-Dichlorophenol | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 4-Chloro-3-methylphenol | mg/kg | < 1 | | | 1 | Pass | |
| Pentachlorophenol | mg/kg | < 1 | | | 1 | Pass | |
| Tetrachlorophenols - Total | mg/kg | < 10 | | | 10 | Pass | |
| **Method Blank** | | | | | | | |
| **Phenols (non-Halogenated)** | | | | | | | |
| 2-Cyclohexyl-4.6-dinitrophenol | mg/kg | < 20 | | | 20 | Pass | |
| 2-Methyl-4.6-dinitrophenol | mg/kg | < 5 | | | 5 | Pass | |
| 2-Nitrophenol | mg/kg | < 1 | | | 1.0 | Pass | |
| 2.4-Dimethylphenol | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 2.4-Dinitrophenol | mg/kg | < 5 | | | 5 | Pass | |
| 2-Methylphenol (o-Cresol) | mg/kg | < 0.2 | | | 0.2 | Pass | |
| 3&4-Methylphenol (m&p-Cresol) | mg/kg | < 0.4 | | | 0.4 | Pass | |
| 4-Nitrophenol | mg/kg | < 5 | | | 5 | Pass | |
| Dinoseb | mg/kg | < 20 | | | 20 | Pass | |
| Phenol | mg/kg | < 0.5 | | | 0.5 | Pass | |
| **Method Blank** | | | | | | | |
| Chromium (hexavalent) | mg/kg | < 1 | | | 1 | Pass | |
| Cyanide (total) | mg/kg | < 5 | | | 5 | Pass | |
| Fluoride (Total) | mg/kg | < 100 | | | 100 | 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 | |
| Molybdenum | mg/kg | < 5 | | | 5 | Pass | |
| Nickel | mg/kg | < 5 | | | 5 | Pass | |
| Selenium | mg/kg | < 2 | | | 2 | Pass | |
| Silver | mg/kg | < 2 | | | 2 | Pass | |
| Tin | mg/kg | < 10 | | | 10 | Pass | |

| Test | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|
| Zinc | mg/kg | < 5 | | | 5 | Pass | |
| **Method Blank** | | | | | | | |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | | | | |
| Perfluorobutanoic acid (PFBA) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluoropentanoic acid (PFPeA) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluorohexanoic acid (PFHxA) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluoroheptanoic acid (PFHpA) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluorooctanoic acid (PFOA) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluorononanoic acid (PFNA) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluorodecanoic acid (PFDA) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluoroundecanoic acid (PFUnDA) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluorododecanoic acid (PFDoDA) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluorotridecanoic acid (PFTrDA) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluorotetradecanoic acid (PFTeDA) | ug/kg | < 5 | | | 5 | Pass | |
| **Method Blank** | | | | | | | |
| **Perfluoroalkyl sulfonamido substances** | | | | | | | |
| Perfluorooctane sulfonamide (FOSA) | ug/kg | < 5 | | | 5 | Pass | |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) | ug/kg | < 5 | | | 5 | Pass | |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) | ug/kg | < 5 | | | 5 | Pass | |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) | ug/kg | < 5 | | | 5 | Pass | |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) | ug/kg | < 5 | | | 5 | Pass | |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) | ug/kg | < 10 | | | 10 | Pass | |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) | ug/kg | < 10 | | | 10 | Pass | |
| **Method Blank** | | | | | | | |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluorononanesulfonic acid (PFNS) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluoropropanesulfonic acid (PFPrS) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluoropentanesulfonic acid (PFPeS) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluorohexanesulfonic acid (PFHxS) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluoroheptanesulfonic acid (PFHpS) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluorooctanesulfonic acid (PFOS) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluorodecanesulfonic acid (PFDS) | ug/kg | < 5 | | | 5 | Pass | |
| **Method Blank** | | | | | | | |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) | ug/kg | < 5 | | | 5 | Pass | |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) | ug/kg | < 10 | | | 10 | Pass | |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) | ug/kg | < 5 | | | 5 | Pass | |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) | ug/kg | < 5 | | | 5 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Total Recoverable Hydrocarbons** | | | | | | | |
| TRH C6-C9 | % | 95 | | | 70-130 | Pass | |
| TRH C10-C14 | % | 103 | | | 70-130 | Pass | |
| Naphthalene | % | 89 | | | 70-130 | Pass | |
| TRH C6-C10 | % | 92 | | | 70-130 | Pass | |
| TRH >C10-C16 | % | 106 | | | 70-130 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Volatile Organics** | | | | | | | |
| 1.1-Dichloroethene | % | 87 | | | 70-130 | Pass | |
| 1.1.1-Trichloroethane | % | 82 | | | 70-130 | Pass | |
| 1.2-Dichlorobenzene | % | 97 | | | 70-130 | Pass | |
| 1.2-Dichloroethane | % | 96 | | | 70-130 | Pass | |
| Benzene | % | 86 | | | 70-130 | Pass | |
| Ethylbenzene | % | 82 | | | 70-130 | Pass | |

| Test | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|
| m&p-Xylenes | % | 82 | | | 70-130 | Pass | |
| Toluene | % | 81 | | | 70-130 | Pass | |
| Trichloroethene | % | 87 | | | 70-130 | Pass | |
| Xylenes - Total* | % | 81 | | | 70-130 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | | |
| Acenaphthene | % | 88 | | | 70-130 | Pass | |
| Acenaphthylene | % | 91 | | | 70-130 | Pass | |
| Anthracene | % | 93 | | | 70-130 | Pass | |
| Benz(a)anthracene | % | 77 | | | 70-130 | Pass | |
| Benzo(a)pyrene | % | 79 | | | 70-130 | Pass | |
| Benzo(b&j)fluoranthene | % | 112 | | | 70-130 | Pass | |
| Benzo(g.h.i)perylene | % | 77 | | | 70-130 | Pass | |
| Benzo(k)fluoranthene | % | 88 | | | 70-130 | Pass | |
| Chrysene | % | 104 | | | 70-130 | Pass | |
| Dibenz(a.h)anthracene | % | 101 | | | 70-130 | Pass | |
| Fluoranthene | % | 100 | | | 70-130 | Pass | |
| Fluorene | % | 88 | | | 70-130 | Pass | |
| Indeno(1.2.3-cd)pyrene | % | 73 | | | 70-130 | Pass | |
| Naphthalene | % | 84 | | | 70-130 | Pass | |
| Phenanthrene | % | 83 | | | 70-130 | Pass | |
| Pyrene | % | 102 | | | 70-130 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Organochlorine Pesticides** | | | | | | | |
| Chlordanes - Total | % | 104 | | | 70-130 | Pass | |
| 4.4'-DDD | % | 103 | | | 70-130 | Pass | |
| 4.4'-DDE | % | 95 | | | 70-130 | Pass | |
| 4.4'-DDT | % | 87 | | | 70-130 | Pass | |
| a-HCH | % | 77 | | | 70-130 | Pass | |
| Aldrin | % | 92 | | | 70-130 | Pass | |
| b-HCH | % | 110 | | | 70-130 | Pass | |
| d-HCH | % | 105 | | | 70-130 | Pass | |
| Dieldrin | % | 113 | | | 70-130 | Pass | |
| Endosulfan I | % | 80 | | | 70-130 | Pass | |
| Endosulfan II | % | 93 | | | 70-130 | Pass | |
| Endosulfan sulphate | % | 84 | | | 70-130 | Pass | |
| Endrin | % | 93 | | | 70-130 | Pass | |
| Endrin aldehyde | % | 105 | | | 70-130 | Pass | |
| Endrin ketone | % | 78 | | | 70-130 | Pass | |
| g-HCH (Lindane) | % | 84 | | | 70-130 | Pass | |
| Heptachlor | % | 109 | | | 70-130 | Pass | |
| Heptachlor epoxide | % | 105 | | | 70-130 | Pass | |
| Hexachlorobenzene | % | 104 | | | 70-130 | Pass | |
| Methoxychlor | % | 97 | | | 70-130 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor-1260 | % | 110 | | | 70-130 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Phenols (Halogenated)** | | | | | | | |
| 2-Chlorophenol | % | 72 | | | 25-140 | Pass | |
| 2.4-Dichlorophenol | % | 82 | | | 25-140 | Pass | |
| 2.4.5-Trichlorophenol | % | 84 | | | 25-140 | Pass | |
| 2.4.6-Trichlorophenol | % | 65 | | | 25-140 | Pass | |
| 2.6-Dichlorophenol | % | 73 | | | 25-140 | Pass | |

| Test | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|
| 4-Chloro-3-methylphenol | % | 67 | | | 25-140 | Pass | |
| Pentachlorophenol | % | 78 | | | 25-140 | Pass | |
| Tetrachlorophenols - Total | % | 76 | | | 25-140 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Phenols (non-Halogenated)** | | | | | | | |
| 2-Cyclohexyl-4.6-dinitrophenol | % | 35 | | | 25-140 | Pass | |
| 2-Methyl-4.6-dinitrophenol | % | 45 | | | 25-140 | Pass | |
| 2-Nitrophenol | % | 76 | | | 25-140 | Pass | |
| 2.4-Dimethylphenol | % | 57 | | | 25-140 | Pass | |
| 2.4-Dinitrophenol | % | 53 | | | 25-140 | Pass | |
| 2-Methylphenol (o-Cresol) | % | 55 | | | 25-140 | Pass | |
| 3&4-Methylphenol (m&p-Cresol) | % | 68 | | | 25-140 | Pass | |
| 4-Nitrophenol | % | 54 | | | 25-140 | Pass | |
| Dinoseb | % | 59 | | | 25-140 | Pass | |
| Phenol | % | 43 | | | 25-140 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| Chromium (hexavalent) | % | 92 | | | 70-130 | Pass | |
| Cyanide (total) | % | 97 | | | 70-130 | Pass | |
| Fluoride (Total) | % | 97 | | | 70-130 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Heavy Metals** | | | | | | | |
| Arsenic | % | 102 | | | 80-120 | Pass | |
| Cadmium | % | 102 | | | 80-120 | Pass | |
| Chromium | % | 109 | | | 80-120 | Pass | |
| Copper | % | 100 | | | 80-120 | Pass | |
| Lead | % | 97 | | | 80-120 | Pass | |
| Mercury | % | 107 | | | 80-120 | Pass | |
| Molybdenum | % | 100 | | | 80-120 | Pass | |
| Nickel | % | 102 | | | 80-120 | Pass | |
| Selenium | % | 98 | | | 80-120 | Pass | |
| Silver | % | 108 | | | 80-120 | Pass | |
| Tin | % | 109 | | | 80-120 | Pass | |
| Zinc | % | 102 | | | 80-120 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | | | | |
| Perfluorobutanoic acid (PFBA) | % | 92 | | | 50-150 | Pass | |
| Perfluoropentanoic acid (PFPeA) | % | 102 | | | 50-150 | Pass | |
| Perfluorohexanoic acid (PFHxA) | % | 86 | | | 50-150 | Pass | |
| Perfluoroheptanoic acid (PFHpA) | % | 86 | | | 50-150 | Pass | |
| Perfluorooctanoic acid (PFOA) | % | 99 | | | 50-150 | Pass | |
| Perfluorononanoic acid (PFNA) | % | 100 | | | 50-150 | Pass | |
| Perfluorodecanoic acid (PFDA) | % | 99 | | | 50-150 | Pass | |
| Perfluoroundecanoic acid (PFUnDA) | % | 106 | | | 50-150 | Pass | |
| Perfluorododecanoic acid (PFDoDA) | % | 103 | | | 50-150 | Pass | |
| Perfluorotridecanoic acid (PFTrDA) | % | 91 | | | 50-150 | Pass | |
| Perfluorotetradecanoic acid (PFTeDA) | % | 91 | | | 50-150 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Perfluoroalkyl sulfonamido substances** | | | | | | | |
| Perfluorooctane sulfonamide (FOSA) | % | 92 | | | 50-150 | Pass | |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) | % | 95 | | | 50-150 | Pass | |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) | % | 89 | | | 50-150 | Pass | |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) | % | 87 | | | 50-150 | Pass | |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) | % | 91 | | | 50-150 | Pass | |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) | % | 82 | | | 50-150 | Pass | |

| Test | | | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|---|---|
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) | | | % | 93 | | | 50-150 | Pass | |
| **LCS - % Recovery** | | | | | | | | | |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | | % | 82 | | | 50-150 | Pass | |
| Perfluorononanesulfonic acid (PFNS) | | | % | 64 | | | 50-150 | Pass | |
| Perfluoropropanesulfonic acid (PFPrS) | | | % | 89 | | | 50-150 | Pass | |
| Perfluoropentanesulfonic acid (PFPeS) | | | % | 103 | | | 50-150 | Pass | |
| Perfluorohexanesulfonic acid (PFHxS) | | | % | 93 | | | 50-150 | Pass | |
| Perfluoroheptanesulfonic acid (PFHpS) | | | % | 61 | | | 50-150 | Pass | |
| Perfluorooctanesulfonic acid (PFOS) | | | % | 88 | | | 50-150 | Pass | |
| Perfluorodecanesulfonic acid (PFDS) | | | % | 90 | | | 50-150 | Pass | |
| **LCS - % Recovery** | | | | | | | | | |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | | | | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) | | | % | 85 | | | 50-150 | Pass | |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) | | | % | 83 | | | 50-150 | Pass | |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) | | | % | 91 | | | 50-150 | Pass | |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) | | | % | 89 | | | 50-150 | 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 | M22-Ma66888 | NCP | % | 104 | | | 70-130 | Pass | |
| TRH C10-C14 | M22-Ap0003157 | NCP | % | 112 | | | 70-130 | Pass | |
| Naphthalene | M22-Ma66888 | NCP | % | 90 | | | 70-130 | Pass | |
| TRH C6-C10 | M22-Ma66888 | NCP | % | 103 | | | 70-130 | Pass | |
| TRH >C10-C16 | M22-Ap0003157 | NCP | % | 129 | | | 70-130 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Volatile Organics** | | | | Result 1 | | | | | |
| 1.1-Dichloroethene | M22-Ma66888 | NCP | % | 85 | | | 70-130 | Pass | |
| 1.1.1-Trichloroethane | M22-Ma66888 | NCP | % | 85 | | | 70-130 | Pass | |
| 1.2-Dichlorobenzene | M22-Ma66888 | NCP | % | 105 | | | 70-130 | Pass | |
| 1.2-Dichloroethane | M22-Ma66888 | NCP | % | 74 | | | 70-130 | Pass | |
| Benzene | M22-Ma66888 | NCP | % | 81 | | | 70-130 | Pass | |
| Ethylbenzene | M22-Ma66888 | NCP | % | 114 | | | 70-130 | Pass | |
| m&p-Xylenes | M22-Ma66888 | NCP | % | 121 | | | 70-130 | Pass | |
| o-Xylene | M22-Ma66888 | NCP | % | 117 | | | 70-130 | Pass | |
| Toluene | M22-Ma66888 | NCP | % | 92 | | | 70-130 | Pass | |
| Trichloroethene | M22-Ma66888 | NCP | % | 80 | | | 70-130 | Pass | |
| Xylenes - Total* | M22-Ma66888 | NCP | % | 120 | | | 70-130 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Polycyclic Aromatic Hydrocarbons** | | | | Result 1 | | | | | |
| Acenaphthene | M22-Ma66880 | NCP | % | 104 | | | 70-130 | Pass | |
| Acenaphthylene | M22-Ma64734 | NCP | % | 98 | | | 70-130 | Pass | |
| Anthracene | M22-Ma64734 | NCP | % | 98 | | | 70-130 | Pass | |
| Benz(a)anthracene | M22-Ma64734 | NCP | % | 82 | | | 70-130 | Pass | |
| Benzo(a)pyrene | M22-Ma64734 | NCP | % | 89 | | | 70-130 | Pass | |
| Benzo(b&j)fluoranthene | M22-Ma64734 | NCP | % | 81 | | | 70-130 | Pass | |
| Benzo(g.h.i)perylene | M22-Ma64734 | NCP | % | 82 | | | 70-130 | Pass | |
| Benzo(k)fluoranthene | M22-Ma64734 | NCP | % | 89 | | | 70-130 | Pass | |
| Chrysene | M22-Ma64734 | NCP | % | 74 | | | 70-130 | Pass | |
| Dibenz(a.h)anthracene | M22-Ma64734 | NCP | % | 75 | | | 70-130 | Pass | |
| Fluoranthene | M22-Ma64734 | NCP | % | 73 | | | 70-130 | Pass | |
| Fluorene | M22-Ma64734 | NCP | % | 83 | | | 70-130 | Pass | |
| Indeno(1.2.3-cd)pyrene | M22-Ma64734 | NCP | % | 74 | | | 70-130 | Pass | |
| Naphthalene | M22-Ma64734 | NCP | % | 86 | | | 70-130 | Pass | |

| Test | Lab Sample ID | QA Source | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|---|---|
| Phenanthrene | M22-Ma64734 | NCP | % | 85 | | | 70-130 | Pass | |
| Pyrene | M22-Ma66880 | NCP | % | 102 | | | 70-130 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Organochlorine Pesticides** | | | | Result 1 | | | | | |
| Chlordanes - Total | M22-Ma60160 | NCP | % | 104 | | | 70-130 | Pass | |
| 4.4'-DDD | M22-Ma60160 | NCP | % | 103 | | | 70-130 | Pass | |
| 4.4'-DDE | M22-Ma60160 | NCP | % | 100 | | | 70-130 | Pass | |
| 4.4'-DDT | M22-Ma60160 | NCP | % | 74 | | | 70-130 | Pass | |
| a-HCH | M22-Ma60160 | NCP | % | 118 | | | 70-130 | Pass | |
| Aldrin | M22-Ma60160 | NCP | % | 127 | | | 70-130 | Pass | |
| b-HCH | M22-Ma60160 | NCP | % | 74 | | | 70-130 | Pass | |
| d-HCH | M22-Ma60160 | NCP | % | 109 | | | 70-130 | Pass | |
| Dieldrin | M22-Ma60160 | NCP | % | 118 | | | 70-130 | Pass | |
| Endosulfan I | M22-Ma60160 | NCP | % | 113 | | | 70-130 | Pass | |
| Endosulfan II | M22-Ma60160 | NCP | % | 123 | | | 70-130 | Pass | |
| Endosulfan sulphate | M22-Ma60160 | NCP | % | 96 | | | 70-130 | Pass | |
| Endrin | M22-Ma60160 | NCP | % | 95 | | | 70-130 | Pass | |
| Endrin aldehyde | M22-Ma60160 | NCP | % | 101 | | | 70-130 | Pass | |
| Endrin ketone | M22-Ma60160 | NCP | % | 72 | | | 70-130 | Pass | |
| g-HCH (Lindane) | M22-Ma60160 | NCP | % | 125 | | | 70-130 | Pass | |
| Heptachlor | M22-Ma60160 | NCP | % | 122 | | | 70-130 | Pass | |
| Heptachlor epoxide | M22-Ma60160 | NCP | % | 99 | | | 70-130 | Pass | |
| Hexachlorobenzene | M22-Ma60160 | NCP | % | 116 | | | 70-130 | Pass | |
| Methoxychlor | M22-Ma60160 | NCP | % | 79 | | | 70-130 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Polychlorinated Biphenyls** | | | | Result 1 | | | | | |
| Aroclor-1016 | M22-Ma63617 | NCP | % | 102 | | | 70-130 | Pass | |
| Aroclor-1260 | M22-Ma63617 | NCP | % | 109 | | | 70-130 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Phenols (Halogenated)** | | | | Result 1 | | | | | |
| 2-Chlorophenol | M22-Ma66880 | NCP | % | 84 | | | 30-130 | Pass | |
| 2.4-Dichlorophenol | M22-Ma64734 | NCP | % | 51 | | | 30-130 | Pass | |
| 2.4.5-Trichlorophenol | M22-Ma64734 | NCP | % | 71 | | | 30-130 | Pass | |
| 2.4.6-Trichlorophenol | M22-Ma64734 | NCP | % | 96 | | | 30-130 | Pass | |
| 2.6-Dichlorophenol | M22-Ma64734 | NCP | % | 51 | | | 30-130 | Pass | |
| 4-Chloro-3-methylphenol | M22-Ma64734 | NCP | % | 48 | | | 30-130 | Pass | |
| Pentachlorophenol | M22-Ma66880 | NCP | % | 42 | | | 30-130 | Pass | |
| Tetrachlorophenols - Total | M22-Ma64734 | NCP | % | 56 | | | 30-130 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Phenols (non-Halogenated)** | | | | Result 1 | | | | | |
| 2-Cyclohexyl-4.6-dinitrophenol | M22-Ma66217 | NCP | % | 37 | | | 30-130 | Pass | |
| 2-Methyl-4.6-dinitrophenol | M22-Ma64734 | NCP | % | 35 | | | 30-130 | Pass | |
| 2-Nitrophenol | M22-Ma64734 | NCP | % | 53 | | | 30-130 | Pass | |
| 2.4-Dimethylphenol | M22-Ma64734 | NCP | % | 54 | | | 30-130 | Pass | |
| 2.4-Dinitrophenol | M22-Ma66217 | NCP | % | 41 | | | 30-130 | Pass | |
| 2-Methylphenol (o-Cresol) | M22-Ma64734 | NCP | % | 41 | | | 30-130 | Pass | |
| 3&4-Methylphenol (m&p-Cresol) | M22-Ma64734 | NCP | % | 50 | | | 30-130 | Pass | |
| 4-Nitrophenol | M22-Ma64734 | NCP | % | 35 | | | 30-130 | Pass | |
| Dinoseb | M22-Ma64734 | NCP | % | 37 | | | 30-130 | Pass | |
| Phenol | M22-Ma66880 | NCP | % | 55 | | | 30-130 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| | | | | Result 1 | | | | | |
| Chromium (hexavalent) | M22-Ma64668 | NCP | % | 88 | | | 70-130 | Pass | |
| Cyanide (total) | M22-Ma65329 | NCP | % | 75 | | | 70-130 | Pass | |

| Test | Lab Sample ID | QA Source | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|---|---|
| Fluoride (Total) | M22-Ma67241 | NCP | % | 72 | | | 70-130 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Heavy Metals** | | | | Result 1 | | | | | |
| Arsenic | M22-Ap0002065 | NCP | % | 95 | | | 75-125 | Pass | |
| Cadmium | M22-Ap0002065 | NCP | % | 86 | | | 75-125 | Pass | |
| Chromium | M22-Ap0002065 | NCP | % | 99 | | | 75-125 | Pass | |
| Copper | M22-Ap0002065 | NCP | % | 80 | | | 75-125 | Pass | |
| Lead | M22-Ap0002065 | NCP | % | 90 | | | 75-125 | Pass | |
| Mercury | M22-Ap0002065 | NCP | % | 105 | | | 75-125 | Pass | |
| Molybdenum | M22-Ap0002065 | NCP | % | 92 | | | 75-125 | Pass | |
| Nickel | M22-Ap0002065 | NCP | % | 91 | | | 75-125 | Pass | |
| Selenium | M22-Ap0002065 | NCP | % | 90 | | | 75-125 | Pass | |
| Silver | M22-Ap0002065 | NCP | % | 88 | | | 75-125 | Pass | |
| Tin | M22-Ap0002065 | NCP | % | 90 | | | 75-125 | Pass | |
| Zinc | M22-Ap0002065 | NCP | % | 92 | | | 75-125 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | Result 1 | | | | | |
| Perfluorobutanoic acid (PFBA) | M22-Ma66480 | NCP | % | 90 | | | 50-150 | Pass | |
| Perfluoropentanoic acid (PFPeA) | M22-Ma66480 | NCP | % | 94 | | | 50-150 | Pass | |
| Perfluorohexanoic acid (PFHxA) | M22-Ma66480 | NCP | % | 84 | | | 50-150 | Pass | |
| Perfluoroheptanoic acid (PFHpA) | M22-Ma66480 | NCP | % | 89 | | | 50-150 | Pass | |
| Perfluorooctanoic acid (PFOA) | M22-Ma66480 | NCP | % | 99 | | | 50-150 | Pass | |
| Perfluorononanoic acid (PFNA) | M22-Ma66480 | NCP | % | 82 | | | 50-150 | Pass | |
| Perfluorodecanoic acid (PFDA) | M22-Ma66480 | NCP | % | 93 | | | 50-150 | Pass | |
| Perfluoroundecanoic acid (PFUnDA) | M22-Ma66480 | NCP | % | 118 | | | 50-150 | Pass | |
| Perfluorododecanoic acid (PFDoDA) | M22-Ma66480 | NCP | % | 99 | | | 50-150 | Pass | |
| Perfluorotridecanoic acid (PFTrDA) | M22-Ma66480 | NCP | % | 79 | | | 50-150 | Pass | |
| Perfluorotetradecanoic acid (PFTeDA) | M22-Ma66480 | NCP | % | 95 | | | 50-150 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Perfluoroalkyl sulfonamido substances** | | | | Result 1 | | | | | |
| Perfluorooctane sulfonamide (FOSA) | M22-Ma66480 | NCP | % | 93 | | | 50-150 | Pass | |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) | M22-Ma66480 | NCP | % | 83 | | | 50-150 | Pass | |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) | M22-Ma66480 | NCP | % | 98 | | | 50-150 | Pass | |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) | M22-Ma66480 | NCP | % | 80 | | | 50-150 | Pass | |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) | M22-Ma66480 | NCP | % | 89 | | | 50-150 | Pass | |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) | M22-Ma66480 | NCP | % | 63 | | | 50-150 | Pass | |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) | M22-Ma66480 | NCP | % | 87 | | | 50-150 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | Result 1 | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | M22-Ma66480 | NCP | % | 76 | | | 50-150 | Pass | |
| Perfluorononanesulfonic acid (PFNS) | M22-Ma66480 | NCP | % | 120 | | | 50-150 | Pass | |
| Perfluoropropanesulfonic acid (PFPrS) | M22-Ma66480 | NCP | % | 85 | | | 50-150 | Pass | |
| Perfluoropentanesulfonic acid (PFPeS) | M22-Ma66480 | NCP | % | 97 | | | 50-150 | Pass | |

| Test | Lab Sample ID | QA Source | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorohexanesulfonic acid (PFHxS) | M22-Ma66480 | NCP | % | 91 | | | 50-150 | Pass | |
| Perfluoroheptanesulfonic acid (PFHpS) | M22-Ma66480 | NCP | % | 70 | | | 50-150 | Pass | |
| Perfluorooctanesulfonic acid (PFOS) | M22-Ma66480 | NCP | % | 112 | | | 50-150 | Pass | |
| Perfluorodecanesulfonic acid (PFDS) | M22-Ma66480 | NCP | % | 130 | | | 50-150 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | Result 1 | | | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) | M22-Ma66480 | NCP | % | 90 | | | 50-150 | Pass | |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) | M22-Ma66480 | NCP | % | 90 | | | 50-150 | Pass | |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) | M22-Ma66480 | NCP | % | 86 | | | 50-150 | Pass | |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) | M22-Ma66480 | NCP | % | 74 | | | 50-150 | 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 | M22-Ma65426 | NCP | mg/kg | < 20 | < 20 | <1 | 30% | Pass | |
| TRH C10-C14 | M22-Ap0002554 | NCP | mg/kg | 23 | 29 | 21 | 30% | Pass | |
| Naphthalene | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| TRH C6-C10 | M22-Ma65426 | NCP | mg/kg | < 20 | < 20 | <1 | 30% | Pass | |
| TRH >C10-C16 | M22-Ap0002554 | NCP | mg/kg | < 50 | 54 | 23 | 30% | Pass | |
| TRH >C34-C40 | M22-Ap0002554 | NCP | mg/kg | 390 | 500 | 24 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Volatile Organics** | | | | Result 1 | Result 2 | RPD | | | |
| Hexachlorobutadiene | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Volatile Organics** | | | | Result 1 | Result 2 | RPD | | | |
| 1.1-Dichloroethane | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.2.4-Trichlorobenzene | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.1-Dichloroethene | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.1.1-Trichloroethane | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.1.1.2-Tetrachloroethane | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.1.2-Trichloroethane | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.1.2.2-Tetrachloroethane | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.2-Dibromoethane | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.2-Dichlorobenzene | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.2-Dichloroethane | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.2-Dichloropropane | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.2.3-Trichloropropane | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.2.4-Trimethylbenzene | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.3-Dichlorobenzene | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.3-Dichloropropane | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.3.5-Trimethylbenzene | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.4-Dichlorobenzene | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 2-Butanone (MEK) | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 2-Propanone (Acetone) | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 4-Chlorotoluene | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 4-Methyl-2-pentanone (MIBK) | M22-Ma65426 | NCP | mg/kg | 1.1 | 1.1 | 1.0 | 30% | Pass | |
| Allyl chloride | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |

| Duplicate | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Volatile Organics** | | | | Result 1 | Result 2 | RPD | | | |
| Benzene | M22-Ma65426 | NCP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Bromobenzene | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Bromochloromethane | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Bromodichloromethane | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Bromoform | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Bromomethane | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Carbon disulfide | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Carbon Tetrachloride | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Chlorobenzene | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Chloroethane | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Chloroform | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Chloromethane | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| cis-1.2-Dichloroethene | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| cis-1.3-Dichloropropene | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Dibromochloromethane | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Dibromomethane | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Dichlorodifluoromethane | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Ethylbenzene | M22-Ma65426 | NCP | mg/kg | 0.2 | 0.2 | 3.0 | 30% | Pass | |
| Iodomethane | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Isopropyl benzene (Cumene) | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| m&p-Xylenes | M22-Ma65426 | NCP | mg/kg | 0.4 | 0.4 | 1.0 | 30% | Pass | |
| Methylene Chloride | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| o-Xylene | M22-Ma65426 | NCP | mg/kg | 0.9 | 0.9 | 6.0 | 30% | Pass | |
| Styrene | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Tetrachloroethene | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Toluene | M22-Ma65426 | NCP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| trans-1.2-Dichloroethene | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| trans-1.3-Dichloropropene | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Trichloroethene | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Trichlorofluoromethane | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Vinyl chloride | M22-Ma65426 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Xylenes - Total* | M22-Ma65426 | NCP | mg/kg | 1.2 | 1.3 | 4.0 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Polycyclic Aromatic Hydrocarbons** | | | | Result 1 | Result 2 | RPD | | | |
| Acenaphthene | M22-Ma67241 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Acenaphthylene | M22-Ma67241 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Anthracene | M22-Ma67241 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Benz(a)anthracene | M22-Ma67241 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Benzo(a)pyrene | M22-Ma67241 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Benzo(b&j)fluoranthene | M22-Ma67241 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Benzo(g.h.i)perylene | M22-Ma67241 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Benzo(k)fluoranthene | M22-Ma67241 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Chrysene | M22-Ma67241 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Dibenz(a.h)anthracene | M22-Ma67241 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Fluoranthene | M22-Ma67241 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Fluorene | M22-Ma67241 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Indeno(1.2.3-cd)pyrene | M22-Ma67241 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Naphthalene | M22-Ma67241 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Phenanthrene | M22-Ma67241 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Pyrene | M22-Ma67241 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Duplicate** | | | | | | | | | |
| **Organochlorine Pesticides** | | | | Result 1 | Result 2 | RPD | | | |
| Chlordanes - Total | M22-Ma67241 | NCP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| 4.4'-DDD | M22-Ma67241 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| 4.4'-DDE | M22-Ma67241 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| 4.4'-DDT | M22-Ma67241 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| a-HCH | M22-Ma67241 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Aldrin | M22-Ma67241 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| b-HCH | M22-Ma67241 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| d-HCH | M22-Ma67241 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Dieldrin | M22-Ma67241 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Endosulfan I | M22-Ma67241 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Endosulfan II | M22-Ma67241 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Endosulfan sulphate | M22-Ma67241 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Endrin | M22-Ma67241 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Endrin aldehyde | M22-Ma67241 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Endrin ketone | M22-Ma67241 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| g-HCH (Lindane) | M22-Ma67241 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Heptachlor | M22-Ma67241 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Heptachlor epoxide | M22-Ma67241 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Hexachlorobenzene | M22-Ma67241 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Methoxychlor | M22-Ma67241 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Toxaphene | M22-Ma67241 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Polychlorinated Biphenyls** | | | | Result 1 | Result 2 | RPD | | | |
| Aroclor-1016 | M22-Ma67241 | NCP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Aroclor-1221 | M22-Ma67241 | NCP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Aroclor-1232 | M22-Ma67241 | NCP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Aroclor-1242 | M22-Ma67241 | NCP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Aroclor-1248 | M22-Ma67241 | NCP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Aroclor-1254 | M22-Ma67241 | NCP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Aroclor-1260 | M22-Ma67241 | NCP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Total PCB* | M22-Ma67241 | NCP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Phenols (Halogenated)** | | | | Result 1 | Result 2 | RPD | | | |
| 2-Chlorophenol | M22-Ma67241 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 2.4-Dichlorophenol | M22-Ma67241 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 2.4.5-Trichlorophenol | M22-Ma67241 | NCP | mg/kg | < 1 | < 1 | <1 | 30% | Pass | |
| 2.4.6-Trichlorophenol | M22-Ma67241 | NCP | mg/kg | < 1 | < 1 | <1 | 30% | Pass | |
| 2.6-Dichlorophenol | M22-Ma67241 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 4-Chloro-3-methylphenol | M22-Ma67241 | NCP | mg/kg | < 1 | < 1 | <1 | 30% | Pass | |
| Pentachlorophenol | M22-Ma67241 | NCP | mg/kg | < 1 | < 1 | <1 | 30% | Pass | |
| Tetrachlorophenols - Total | M22-Ma67241 | NCP | mg/kg | < 10 | < 10 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Phenols (non-Halogenated)** | | | | Result 1 | Result 2 | RPD | | | |
| 2-Cyclohexyl-4.6-dinitrophenol | M22-Ma67241 | NCP | mg/kg | < 20 | < 20 | <1 | 30% | Pass | |
| 2-Methyl-4.6-dinitrophenol | M22-Ma67241 | NCP | mg/kg | < 5 | < 5 | <1 | 30% | Pass | |
| 2-Nitrophenol | M22-Ma67241 | NCP | mg/kg | < 1 | < 1 | <1 | 30% | Pass | |
| 2.4-Dimethylphenol | M22-Ma67241 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 2.4-Dinitrophenol | M22-Ma67241 | NCP | mg/kg | < 5 | < 5 | <1 | 30% | Pass | |
| 2-Methylphenol (o-Cresol) | M22-Ma67241 | NCP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| 3&4-Methylphenol (m&p-Cresol) | M22-Ma67241 | NCP | mg/kg | < 0.4 | < 0.4 | <1 | 30% | Pass | |
| 4-Nitrophenol | M22-Ma67241 | NCP | mg/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Dinoseb | M22-Ma67241 | NCP | mg/kg | < 20 | < 20 | <1 | 30% | Pass | |
| Phenol | M22-Ma67241 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |

| Duplicate | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Result 1 | Result 2 | RPD | | | |
| Chromium (hexavalent) | M22-Ma64478 | NCP | mg/kg | < 1 | < 1 | <1 | 30% | Pass | |
| Cyanide (total) | M22-Ap0002066 | NCP | mg/kg | < 5 | < 5 | <1 | 30% | Pass | |
| pH (1:5 Aqueous extract at 25°C as rec.) | M22-Ma62415 | NCP | pH Units | 7.4 | 7.4 | pass | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | Result 1 | Result 2 | RPD | | | |
| Perfluorobutanoic acid (PFBA) | M22-Ma66479 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluoropentanoic acid (PFPeA) | M22-Ma66479 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluorohexanoic acid (PFHxA) | M22-Ma66479 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluoroheptanoic acid (PFHpA) | M22-Ma66479 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluorooctanoic acid (PFOA) | M22-Ma66479 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluorononanoic acid (PFNA) | M22-Ma66479 | NCP | ug/kg | 5.7 | 6.3 | 9.0 | 30% | Pass | |
| Perfluorotridecanoic acid (PFTrDA) | M22-Ma66479 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluorotetradecanoic acid (PFTeDA) | M22-Ma66479 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Perfluoroalkyl sulfonamido substances** | | | | Result 1 | Result 2 | RPD | | | |
| Perfluorooctane sulfonamide (FOSA) | M22-Ma66479 | NCP | ug/kg | 13 | 18 | 28 | 30% | Pass | |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) | M22-Ma66479 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) | M22-Ma66479 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) | M22-Ma66479 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) | M22-Ma66479 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) | M22-Ma66479 | NCP | ug/kg | < 10 | < 10 | <1 | 30% | Pass | |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) | M22-Ma66479 | NCP | ug/kg | < 10 | < 10 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | Result 1 | Result 2 | RPD | | | |
| Perfluorobutanesulfonic acid (PFBS) | M22-Ma66479 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluoropropanesulfonic acid (PFPrS) | M22-Ma66479 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluoropentanesulfonic acid (PFPeS) | M22-Ma66479 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluorohexanesulfonic acid (PFHxS) | M22-Ma66479 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluoroheptanesulfonic acid (PFHpS) | M22-Ma66479 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluorooctanesulfonic acid (PFOS) | M22-Ma63707 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluorodecanesulfonic acid (PFDS) | M22-Ma66479 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | Result 1 | Result 2 | RPD | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) | M22-Ma66479 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) | M22-Ma66479 | NCP | ug/kg | < 10 | < 10 | <1 | 30% | Pass | |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) | M22-Ma66479 | NCP | ug/kg | 98 | 110 | 16 | 30% | Pass | |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) | M22-Ma66479 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |

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Environment Testing

| Duplicate | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Result 1 | Result 2 | RPD | | | |
| % Moisture | M22-Ap0001196 | CP | % | 28 | 30 | 7.0 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Heavy Metals** | | | | Result 1 | Result 2 | RPD | | | |
| Arsenic | M22-Ap0001198 | CP | mg/kg | 39 | 38 | 1.0 | 30% | Pass | |
| Cadmium | M22-Ap0001198 | CP | mg/kg | < 0.4 | < 0.4 | <1 | 30% | Pass | |
| Chromium | M22-Ap0001198 | CP | mg/kg | 150 | 140 | 4.0 | 30% | Pass | |
| Copper | M22-Ap0001198 | CP | mg/kg | 64 | 61 | 5.0 | 30% | Pass | |
| Lead | M22-Ap0001198 | CP | mg/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Mercury | M22-Ap0001198 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Molybdenum | M22-Ap0001198 | CP | mg/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Nickel | M22-Ap0001198 | CP | mg/kg | 210 | 200 | 5.0 | 30% | Pass | |
| Selenium | M22-Ap0001198 | CP | mg/kg | < 2 | < 2 | <1 | 30% | Pass | |
| Silver | M22-Ap0001198 | CP | mg/kg | < 2 | < 2 | <1 | 30% | Pass | |
| Tin | M22-Ap0001198 | CP | mg/kg | < 10 | < 10 | <1 | 30% | Pass | |
| Zinc | M22-Ap0001198 | CP | mg/kg | 130 | 120 | 12 | 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 |
| N11 | Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds. |
| N15 | Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation). |
| Q09 | The Surrogate recovery is outside of the recommended acceptance criteria due to matrix interference. Acceptance criteria were met for all other QC |
| Q15 | The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report. |

### Authorised by:

| | |
|---|---|
| Catherine Wilson | Analytical Services Manager |
| Mele Singh | Senior Analyst (VIC) |
| Linda Chouman | Senior Analyst (NSW) |
| Edward Lee | Senior Analyst (VIC) |
| Joseph Edouard | Senior Analyst (VIC) |
| Vivian Wang | Senior Analyst (VIC) |
| Scott Beddoes | Senior Analyst (NSW) |
| Mary Makarios | Senior Analyst (NSW) |

**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.

[redacted] 02 9900 8400 EnviroSampleNSW@eurofins.com 07 3902 4600 EnviroSampleQLD@eurofins.com 08 9251 9600 EnviroSampleWA@eurofins.com 03 8564 5000 EnviroSampleVic@eurofins.com

| | | | | | |
|---|---|---|---|---|---|
| Company | AGON Environmental - Tunnel Spoil Testing | Project № | JC0927 | Project Manager | Craig Trimbur |
| Address | Unit H76, 63-85 Turner St, Port Melbourne VIC 3207 | Project Name | WGTP-Tunnel<br>Ref: 20220402044310-Eurofin-21 | EDD Format<br>ESdat, EQuIS etc | Esdat |
| Contact Name | Craig Trimbur<br>David Lawson | | | | |
| Phone № | +61 400 826 907 (Craig)<br>+61 490 411 004 (David) | | | | |
| Special Directions | Please provide an interim lab report if finalised report has not been provided by 14 days from sample receipt.<br>Please provide eSRN along with oter sample recipt documentation. | | | | |
| Purchase Order | | | | | |
| Quote ID № | Agon WGTP TST | | | | |

| | |
|---|---|
| Sampler(s) | LR - EP Risk |
| Handed over by | Emma . S . |
| Email for Invoice | finance@agonenviro.com.au<br>LabReports.TST@agonenviro.com.au |
| Email for Results | LabReports.TST@agonenviro.com.au<br>agonenvironmental@esdat.com.au<br>motherhublabresults1@wgtp.com.au<br>Amrit.Kaur@agile-analytics.com.au |

**Analyses** — Where metals are requested, please specify "Total" or "Filtered". SUITE code must be used to attract SUITE pricing.

**Containers** — Change container type & size if necessary

**Required Turnaround Time (TAT)** — Default will be 5 days if not ticked
♦Surcharge will apply
- ☐ Overnight (reporting by 9am)♦
- ☐ Same day♦
- ☐ 1 day♦
- ☐ 2 days♦
- ☐ 3 days♦
- ☑ 5 days (Standard)
- ☐ Other( )

| № | Client Sample ID | Sampled Date/Time dd/mm/yy hh:mm | Matrix Solid (S) Water (W) | Spoil Sample Preparation | Suite WGTP-R1-TRH/ PAH/ Phenols/ OCP/ PCB/ VOC/ Vinyl Chloride/ Metals (As, Cd, Cr, Cu, Ni, Pb,Hg, Ag, Sn, Mo, Se, Zn)/ Cr6+/ CN/ Total Fluoride/ pH | PFAS Extended Suite - 0.1- 5ug/kg | ASLP PH 5 - PFAS 0.01-0.05 ug/l | ASLP Reagent - PFAS 0.01-0.05ug/l | 500mL Plastic | 250mL Plastic | 125mL Plastic | 200mL Amber Glass | 40mL VOA vial | 500mL PFAS Bottle | Jar (Glass or HDPE) | Other (Asbestos AS4964, WA Guidelines) | Sample Comments / Dangerous Goods Hazard Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SX_OB_20220401_20_10_SS_Triplicate_EUF | 01/04/2022 2010 | S | X | X | X | X | X | | | | | | | | 1 | |
| 2 | SX_OB_20220401_20_02_SS_Primary_EUF | 01/04/2022 2002 | S | X | X | X | X | X | | | | | | | | 1 | |
| 3 | SX_OB_20220402_00_08_SS_Primary_EUF | 02/042022 0008 | S | X | X | X | X | X | | | | | | | | 1 | |
| 4 | SX_OB_20220402_03_59_SS_Primary_EUF | 02/042022 0359 | S | X | X | X | X | X | | | | | | | | 1 | |
| 5 | SX_OB_20220402_04_00_SS_Duplicate_EUF | 02/042022 0400 | S | X | X | X | X | X | | | | | | | | 1 | |
| 6 | SX_OB_20220402_04_13_SR_Rinsate_EUF | 02/042022 0413 | W | | | X | | | | | | | | | | 1 | |
| 7 | SX_OB_20220402_04_14_SB_Blank_EUF | 02/042022 0414 | W | | | X | | | | | | | | | | 1 | |
| 8 | | | | | | | | | | | | | | | | 1 | |
| 9 | | | | | | | | | | | | | | | | 1 | |
| 10 | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | |
| | | | Total Counts | 5 | 5 | 7 | 5 | 5 | | | | | | | | 9 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Method of Shipment | ☑ Courier (# ) ☐ Hand Delivered ☐ Postal | Name | Emma, S | Signature | | Date | 02/04/22 |
| | | | | | | Time | 7:58am |
| Laboratory Use Only | Received By | Jake | SYD \| BNE \| MEL \| PER \| ADL \| NTL \| DRW | Signature | | Date | 2/4 |
| | | | | | | Time | 11:15 |
| | | | | | | Temperature | 13.5 |
| | Received By | | SYD \| BNE \| MEL \| PER \| ADL \| NTL \| DRW | Signature | | Date | |
| | | | | | | Time | |
| | | | | | | Report № | 826688 |

# Sample Receipt Advice

| | |
|---|---|
| **Company name:** | Agon Environmental Pty Ltd - VIC |
| **Contact name:** | Agon Lab Reports (Spoil Project) |
| **Project name:** | 20220402044310-Eurofin-21 |
| **Project ID:** | JC0927 |
| **Turnaround time:** | 5 Day |
| **Date/Time received** | Apr 2, 2022 11:15 AM |
| **Eurofins reference** | 876688 |

## Sample Information

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

## Notes

## Contact

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

**Michael Cassidy on phone : +61 3 8564 5000 or by email: MichaelCassidy@eurofins.com**

Results will be delivered electronically via email to Agon Lab Reports (Spoil Project) - labreports.TST@agonenviro.com.au.

*Note: A copy of these results will also be delivered to the general Agon Environmental Pty Ltd - VIC email address.*

eurofins Environment Testing

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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

| | | | |
|---|---|---|---|
| **Company Name:** | Agon Environmental Pty Ltd - VIC | **Order No.:** | |
| **Address:** | 3/224 Glen Osmond Road<br>Fullarton<br>SA 5063 | **Report #:** | 876688 |
| | | **Phone:** | 08 8338 1009 |
| | | **Fax:** | |
| **Project Name:** | 20220402044310-Eurofin-21 | **Received:** | Apr 2, 2022 11:15 AM |
| **Project ID:** | JC0927 | **Due:** | Apr 11, 2022 |
| | | **Priority:** | 5 Day |
| | | **Contact Name:** | Agon Lab Reports (Spoil Project) |

**Eurofins Analytical Services Manager : Michael Cassidy**

| Sample Detail | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **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 | SX_OB_20220401_20_10_SS_Triplicate_EUF | Apr 01, 2022 | 8:10PM | Soil | M22-Ap0002509 | | X | X | X |
| 2 | SX_OB_20220401_20_02_SS_Primary_EUF | Apr 01, 2022 | 8:02PM | Soil | M22-Ap0002510 | | X | X | X |
| 3 | SX_OB_20220402_00_08_SS_Primary_EUF | Apr 02, 2022 | 12:08AM | Soil | M22-Ap0002511 | | X | X | X |

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**Eurofins Analytical Services Manager : Michael Cassidy**

| **Sample Detail** | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| 4 | SX_OB_20220402_03_59_SS_Primary_EUF | Apr 02, 2022 | 3:59AM | Soil | M22-Ap0002512 | | X | X | X |
| 5 | SX_OB_20220402_04_00_SS_Duplicate_EUF | Apr 02, 2022 | 4:00AM | Soil | M22-Ap0002513 | | X | X | X |
| 6 | SX_OB_20220402_04_13_SR_Rinsate_EUF | Apr 02, 2022 | 4:13AM | Water | M22-Ap0002514 | | | X | |
| 7 | SX_OB_20220402_04_14_S | Apr 02, 2022 | 4:14AM | Water | M22-Ap0002515 | | | X | |

eurofins Environment Testing

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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

**Sydney**
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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
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Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

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

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35 O'Rorke Road
Penrose, Auckland 1061
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IANZ # 1327

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

| | | | | | |
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| **Address:** | 3/224 Glen Osmond Road<br>Fullarton<br>SA 5063 | **Report #:** | 876688 | **Due:** | Apr 11, 2022 |
| | | **Phone:** | 08 8338 1009 | **Priority:** | 5 Day |
| | | **Fax:** | | **Contact Name:** | Agon Lab Reports (Spoil Project) |
| **Project Name:** | 20220402044310-Eurofin-21 | | | | |
| **Project ID:** | JC0927 | | | | |

**Eurofins Analytical Services Manager : Michael Cassidy**

| **Sample Detail** | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| | B_Blank_EUF | | | | | | | | |
| 8 | SX_OB_20220401_20_10_SS_Triplicate_EUF | Apr 01, 2022 | 8:10PM | AUS Leachate - pH 5.0 | M22-Ap0002516 | X | | X | |
| 9 | SX_OB_20220401_20_02_SS_Primary_EUF | Apr 01, 2022 | 8:02PM | AUS Leachate - pH 5.0 | M22-Ap0002517 | X | | X | |
| 10 | SX_OB_20220402_00_08_SS_Primary_EUF | Apr 02, 2022 | 12:08AM | AUS Leachate - pH 5.0 | M22-Ap0002518 | X | | X | |
| 11 | SX_OB_20220 | Apr 02, 2022 | 3:59AM | AUS Leachate | M22- | X | | X | |

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**Eurofins Analytical Services Manager : Michael Cassidy**

| **Sample Detail** | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| | 402_03_59_SS_Primary_EUF | | | - pH 5.0 | Ap0002519 | | | | |
| 12 | SX_OB_20220402_04_00_SS_Duplicate_EUF | Apr 02, 2022 | 4:00AM | AUS Leachate - pH 5.0 | M22-Ap0002520 | X | | X | |
| 13 | SX_OB_20220401_20_10_SS_Triplicate_EUF | Apr 01, 2022 | 8:10PM | AUS Leachate - Reagent Water | M22-Ap0002521 | X | | X | |
| 14 | SX_OB_20220401_20_02_SS_Primary_EU | Apr 01, 2022 | 8:02PM | AUS Leachate - Reagent Water | M22-Ap0002522 | X | | X | |

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**Project ID:** JC0927

**Order No.:**
**Report #:** 876688
**Phone:** 08 8338 1009
**Fax:**

**Received:** Apr 2, 2022 11:15 AM
**Due:** Apr 11, 2022
**Priority:** 5 Day
**Contact Name:** Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

| **Sample Detail** | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| | F | | | | | | | | |
| 15 | SX_OB_20220402_00_08_SS_Primary_EUF | Apr 02, 2022 | 12:08AM | AUS Leachate - Reagent Water | M22-Ap0002523 | X | | X | |
| 16 | SX_OB_20220402_03_59_SS_Primary_EUF | Apr 02, 2022 | 3:59AM | AUS Leachate - Reagent Water | M22-Ap0002524 | X | | X | |
| 17 | SX_OB_20220402_04_00_SS_Duplicate_EUF | Apr 02, 2022 | 4:00AM | AUS Leachate - Reagent Water | M22-Ap0002525 | X | | X | |
| **Test Counts** | | | | | | 10 | 5 | 17 | 5 |

# eurofins Environment Testing

Certificate of Analysis

**Agon Environmental Pty Ltd - VIC**
**3/224 Glen Osmond Road**
**Fullarton**
**SA 5063**

NATA Accredited
Accreditation Number 1261
Site Number 1254

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

| | |
|---|---|
| **Attention:** | **Agon Lab Reports (Spoil Project)** |
| **Report** | **876688-L** |
| Project name | 20220402044310-Eurofin-21 |
| Project ID | JC0927 |
| Received Date | Apr 02, 2022 |

| **Client Sample ID** | | | **SX_OB_20220401_20_10_SS_Triplicate_EUF** | **SX_OB_20220401_20_02_SS_Primary_EUF** | **SX_OB_20220402_00_08_SS_Primary_EUF** | **SX_OB_20220402_03_59_SS_Primary_EUF** |
|---|---|---|---|---|---|---|
| **Sample Matrix** | | | **AUS Leachate - pH 5.0** | **AUS Leachate - pH 5.0** | **AUS Leachate - pH 5.0** | **AUS Leachate - pH 5.0** |
| **Eurofins Sample No.** | | | **M22-Ap0002516** | **M22-Ap0002517** | **M22-Ap0002518** | **M22-Ap0002519** |
| **Date Sampled** | | | **Apr 01, 2022** | **Apr 01, 2022** | **Apr 02, 2022** | **Apr 02, 2022** |
| Test/Reference | LOR | Unit | | | | |
| **AUS Leaching Procedure** | | | | | | |
| Leachate Fluid[C01] | | comment | 1.0 | 1.0 | 1.0 | 1.0 |
| pH (initial) | 0.1 | pH Units | N/A | N/A | N/A | N/A |
| pH (Leachate fluid) | 0.1 | pH Units | 5.0 | 5.0 | 5.0 | 5.0 |
| pH (off) | 0.1 | pH Units | 5.2 | 5.2 | 5.2 | 5.2 |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | | | |
| Perfluorobutanoic acid (PFBA)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Perfluoropentanoic acid (PFPeA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorohexanoic acid (PFHxA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluoroheptanoic acid (PFHpA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorooctanoic acid (PFOA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorononanoic acid (PFNA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorodecanoic acid (PFDA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluoroundecanoic acid (PFUnDA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorododecanoic acid (PFDoDA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorotridecanoic acid (PFTrDA)[N15] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorotetradecanoic acid (PFTeDA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 13C4-PFBA (surr.) | 1 | % | 79 | 81 | 78 | 77 |
| 13C5-PFPeA (surr.) | 1 | % | 84 | 92 | 84 | 93 |
| 13C5-PFHxA (surr.) | 1 | % | 84 | 83 | 77 | 71 |
| 13C4-PFHpA (surr.) | 1 | % | 85 | 94 | 84 | 86 |
| 13C8-PFOA (surr.) | 1 | % | 85 | 94 | 88 | 87 |
| 13C5-PFNA (surr.) | 1 | % | 78 | 91 | 85 | 77 |
| 13C6-PFDA (surr.) | 1 | % | 80 | 82 | 81 | 88 |
| 13C2-PFUnDA (surr.) | 1 | % | 58 | 69 | 67 | 64 |
| 13C2-PFDoDA (surr.) | 1 | % | 60 | 71 | 73 | 66 |
| 13C2-PFTeDA (surr.) | 1 | % | 23 | 30 | 30 | 37 |

| Client Sample ID | | | SX_OB_20220401_20_10_SS_Triplicate_EUF | SX_OB_20220401_20_02_SS_Primary_EUF | SX_OB_20220402_00_08_SS_Primary_EUF | SX_OB_20220402_03_59_SS_Primary_EUF |
|---|---|---|---|---|---|---|
| Sample Matrix | | | AUS Leachate - pH 5.0 | AUS Leachate - pH 5.0 | AUS Leachate - pH 5.0 | AUS Leachate - pH 5.0 |
| Eurofins Sample No. | | | M22-Ap0002516 | M22-Ap0002517 | M22-Ap0002518 | M22-Ap0002519 |
| Date Sampled | | | Apr 01, 2022 | Apr 01, 2022 | Apr 02, 2022 | Apr 02, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Perfluoroalkyl sulfonamido substances** | | | | | | |
| Perfluorooctane sulfonamide (FOSA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)N11 | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)N11 | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| 13C8-FOSA (surr.) | 1 | % | 86 | 87 | 90 | 87 |
| D3-N-MeFOSA (surr.) | 1 | % | 87 | 86 | 143 | 143 |
| D5-N-EtFOSA (surr.) | 1 | % | 87 | 90 | 146 | 157 |
| D7-N-MeFOSE (surr.) | 1 | % | 80 | 74 | 83 | 85 |
| D9-N-EtFOSE (surr.) | 1 | % | 78 | 74 | 88 | 87 |
| D5-N-EtFOSAA (surr.) | 1 | % | 27 | 21 | 23 | 26 |
| D3-N-MeFOSAA (surr.) | 1 | % | 28 | 25 | 26 | 28 |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | | | |
| Perfluorobutanesulfonic acid (PFBS)N11 | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorononanesulfonic acid (PFNS)N15 | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluoropropanesulfonic acid (PFPrS)N15 | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluoropentanesulfonic acid (PFPeS)N15 | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorohexanesulfonic acid (PFHxS)N11 | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluoroheptanesulfonic acid (PFHpS)N15 | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorooctanesulfonic acid (PFOS)N11 | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorodecanesulfonic acid (PFDS)N15 | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 13C3-PFBS (surr.) | 1 | % | 97 | 92 | 85 | 93 |
| 18O2-PFHxS (surr.) | 1 | % | 82 | 85 | 81 | 94 |
| 13C8-PFOS (surr.) | 1 | % | 82 | 85 | 84 | 83 |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 13C2-4:2 FTSA (surr.) | 1 | % | 81 | 90 | 83 | 84 |
| 13C2-6:2 FTSA (surr.) | 1 | % | 88 | 99 | 91 | 84 |
| 13C2-8:2 FTSA (surr.) | 1 | % | 74 | 90 | 78 | 70 |
| 13C2-10:2 FTSA (surr.) | 1 | % | 66 | 83 | 76 | 67 |
| **PFASs Summations** | | | | | | |
| Sum (PFHxS + PFOS)* | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Sum of US EPA PFAS (PFOS + PFOA)* | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Sum of enHealth PFAS (PFHxS + PFOS + PFOA)* | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Sum of WA DWER PFAS (n=10)* | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Sum of PFASs (n=30)* | 0.1 | ug/L | < 0.1 | < 0.1 | < 0.1 | < 0.1 |

| Client Sample ID | | | SX_OB_20220402_04_00_SS_Duplicate_EUF | SX_OB_20220401_20_10_SS_Triplicate_EUF | SX_OB_20220401_20_02_SS_Primary_EUF | SX_OB_20220402_00_08_SS_Primary_EUF |
|---|---|---|---|---|---|---|
| **Sample Matrix** | | | **AUS Leachate - pH 5.0** | **AUS Leachate - Reagent Water** | **AUS Leachate - Reagent Water** | **AUS Leachate - Reagent Water** |
| **Eurofins Sample No.** | | | **M22-Ap0002520** | **M22-Ap0002521** | **M22-Ap0002522** | **M22-Ap0002523** |
| **Date Sampled** | | | Apr 02, 2022 | Apr 01, 2022 | Apr 01, 2022 | Apr 02, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **AUS Leaching Procedure** | | | | | | |
| Leachate Fluid[C01] | | comment | 1.0 | 4.0 | 4.0 | 4.0 |
| pH (initial) | 0.1 | pH Units | N/A | N/A | N/A | N/A |
| pH (Leachate fluid) | 0.1 | pH Units | 5.0 | 6.4 | 6.4 | 6.4 |
| pH (off) | 0.1 | pH Units | 5.2 | 8.7 | 9.0 | 8.9 |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | | | |
| Perfluorobutanoic acid (PFBA)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Perfluoropentanoic acid (PFPeA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorohexanoic acid (PFHxA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluoroheptanoic acid (PFHpA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorooctanoic acid (PFOA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorononanoic acid (PFNA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorodecanoic acid (PFDA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluoroundecanoic acid (PFUnDA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorododecanoic acid (PFDoDA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorotridecanoic acid (PFTrDA)[N15] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorotetradecanoic acid (PFTeDA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 13C4-PFBA (surr.) | 1 | % | 78 | 83 | 79 | 81 |
| 13C5-PFPeA (surr.) | 1 | % | 96 | 96 | 89 | 92 |
| 13C5-PFHxA (surr.) | 1 | % | 64 | 91 | 90 | 92 |
| 13C4-PFHpA (surr.) | 1 | % | 88 | 94 | 91 | 95 |
| 13C8-PFOA (surr.) | 1 | % | 84 | 102 | 97 | 95 |
| 13C5-PFNA (surr.) | 1 | % | 87 | 91 | 91 | 92 |
| 13C6-PFDA (surr.) | 1 | % | 97 | 94 | 92 | 94 |
| 13C2-PFUnDA (surr.) | 1 | % | 73 | 75 | 84 | 79 |
| 13C2-PFDoDA (surr.) | 1 | % | 82 | 85 | 85 | 79 |
| 13C2-PFTeDA (surr.) | 1 | % | 30 | 42 | 39 | 34 |
| **Perfluoroalkyl sulfonamido substances** | | | | | | |
| Perfluorooctane sulfonamide (FOSA)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| 13C8-FOSA (surr.) | 1 | % | 97 | 92 | 99 | 93 |
| D3-N-MeFOSA (surr.) | 1 | % | 116 | 118 | 130 | 148 |
| D5-N-EtFOSA (surr.) | 1 | % | 119 | 112 | 124 | 127 |
| D7-N-MeFOSE (surr.) | 1 | % | 86 | 81 | 80 | 83 |
| D9-N-EtFOSE (surr.) | 1 | % | 85 | 82 | 82 | 80 |
| D5-N-EtFOSAA (surr.) | 1 | % | 26 | 36 | 38 | 42 |
| D3-N-MeFOSAA (surr.) | 1 | % | 26 | 41 | 45 | 54 |

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Environment Testing

| Client Sample ID | | | SX_OB_20220402_04_00_SS_Duplicate_EUF | SX_OB_20220401_20_10_SS_Triplicate_EUF | SX_OB_20220401_20_02_SS_Primary_EUF | SX_OB_20220402_00_08_SS_Primary_EUF |
|---|---|---|---|---|---|---|
| **Sample Matrix** | | | **AUS Leachate - pH 5.0** | **AUS Leachate - Reagent Water** | **AUS Leachate - Reagent Water** | **AUS Leachate - Reagent Water** |
| **Eurofins Sample No.** | | | **M22-Ap0002520** | **M22-Ap0002521** | **M22-Ap0002522** | **M22-Ap0002523** |
| **Date Sampled** | | | Apr 02, 2022 | Apr 01, 2022 | Apr 01, 2022 | Apr 02, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | | | |
| Perfluorobutanesulfonic acid (PFBS)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorononanesulfonic acid (PFNS)[N15] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluoropropanesulfonic acid (PFPrS)[N15] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluoropentanesulfonic acid (PFPeS)[N15] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorohexanesulfonic acid (PFHxS)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluoroheptanesulfonic acid (PFHpS)[N15] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorooctanesulfonic acid (PFOS)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Perfluorodecanesulfonic acid (PFDS)[N15] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 13C3-PFBS (surr.) | 1 | % | 85 | 104 | 92 | 100 |
| 18O2-PFHxS (surr.) | 1 | % | 98 | 97 | 88 | 92 |
| 13C8-PFOS (surr.) | 1 | % | 86 | 87 | 96 | 89 |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 13C2-4:2 FTSA (surr.) | 1 | % | 89 | 85 | 79 | 82 |
| 13C2-6:2 FTSA (surr.) | 1 | % | 88 | 89 | 80 | 83 |
| 13C2-8:2 FTSA (surr.) | 1 | % | 84 | 97 | 91 | 98 |
| 13C2-10:2 FTSA (surr.) | 1 | % | 75 | 84 | 100 | 88 |
| **PFASs Summations** | | | | | | |
| Sum (PFHxS + PFOS)* | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Sum of US EPA PFAS (PFOS + PFOA)* | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Sum of enHealth PFAS (PFHxS + PFOS + PFOA)* | 0.01 | ug/L | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Sum of WA DWER PFAS (n=10)* | 0.05 | ug/L | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Sum of PFASs (n=30)* | 0.1 | ug/L | < 0.1 | < 0.1 | < 0.1 | < 0.1 |

| Client Sample ID | | | SX_OB_20220402_03_59_SS_Primary_EUF | SX_OB_20220402_04_00_SS_Duplicate_EUF |
|---|---|---|---|---|
| **Sample Matrix** | | | **AUS Leachate - Reagent Water** | **AUS Leachate - Reagent Water** |
| **Eurofins Sample No.** | | | **M22-Ap0002524** | **M22-Ap0002525** |
| **Date Sampled** | | | Apr 02, 2022 | Apr 02, 2022 |
| Test/Reference | LOR | Unit | | |
| **AUS Leaching Procedure** | | | | |
| Leachate Fluid[C01] | | comment | 4.0 | 4.0 |
| pH (initial) | 0.1 | pH Units | N/A | N/A |
| pH (Leachate fluid) | 0.1 | pH Units | 6.4 | 6.4 |
| pH (off) | 0.1 | pH Units | 8.8 | 8.8 |

| Client Sample ID | | | SX_OB_20220402_03_59_SS_Primary_EUF | SX_OB_20220402_04_00_SS_Duplicate_EUF |
|---|---|---|---|---|
| **Sample Matrix** | | | **AUS Leachate - Reagent Water** | **AUS Leachate - Reagent Water** |
| **Eurofins Sample No.** | | | **M22-Ap0002524** | **M22-Ap0002525** |
| **Date Sampled** | | | Apr 02, 2022 | Apr 02, 2022 |
| Test/Reference | LOR | Unit | | |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | |
| Perfluorobutanoic acid (PFBA)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 |
| Perfluoropentanoic acid (PFPeA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorohexanoic acid (PFHxA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluoroheptanoic acid (PFHpA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorooctanoic acid (PFOA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorononanoic acid (PFNA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorodecanoic acid (PFDA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluoroundecanoic acid (PFUnDA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorododecanoic acid (PFDoDA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorotridecanoic acid (PFTrDA)[N15] | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorotetradecanoic acid (PFTeDA)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 |
| 13C4-PFBA (surr.) | 1 | % | 82 | 83 |
| 13C5-PFPeA (surr.) | 1 | % | 98 | 102 |
| 13C5-PFHxA (surr.) | 1 | % | 84 | 78 |
| 13C4-PFHpA (surr.) | 1 | % | 92 | 94 |
| 13C8-PFOA (surr.) | 1 | % | 89 | 89 |
| 13C5-PFNA (surr.) | 1 | % | 95 | 96 |
| 13C6-PFDA (surr.) | 1 | % | 95 | 107 |
| 13C2-PFUnDA (surr.) | 1 | % | 80 | 80 |
| 13C2-PFDoDA (surr.) | 1 | % | 81 | 85 |
| 13C2-PFTeDA (surr.) | 1 | % | 35 | 40 |
| **Perfluoroalkyl sulfonamido substances** | | | | |
| Perfluorooctane sulfonamide (FOSA)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11] | 0.05 | ug/L | < 0.05 | < 0.05 |
| 13C8-FOSA (surr.) | 1 | % | 94 | 97 |
| D3-N-MeFOSA (surr.) | 1 | % | 125 | 124 |
| D5-N-EtFOSA (surr.) | 1 | % | 125 | 112 |
| D7-N-MeFOSE (surr.) | 1 | % | 81 | 84 |
| D9-N-EtFOSE (surr.) | 1 | % | 82 | 82 |
| D5-N-EtFOSAA (surr.) | 1 | % | 41 | 38 |
| D3-N-MeFOSAA (surr.) | 1 | % | 47 | 41 |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | |
| Perfluorobutanesulfonic acid (PFBS)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorononanesulfonic acid (PFNS)[N15] | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluoropropanesulfonic acid (PFPrS)[N15] | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluoropentanesulfonic acid (PFPeS)[N15] | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorohexanesulfonic acid (PFHxS)[N11] | 0.01 | ug/L | < 0.01 | < 0.01 |

| Client Sample ID | | | SX_OB_20220402_03_59_SS_Primary_EUF | SX_OB_20220402_04_00_SS_Duplicate_EUF |
|---|---|---|---|---|
| Sample Matrix | | | AUS Leachate - Reagent Water | AUS Leachate - Reagent Water |
| Eurofins Sample No. | | | M22-Ap0002524 | M22-Ap0002525 |
| Date Sampled | | | Apr 02, 2022 | Apr 02, 2022 |
| Test/Reference | LOR | Unit | | |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | |
| Perfluoroheptanesulfonic acid (PFHpS)N15 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorooctanesulfonic acid (PFOS)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorodecanesulfonic acid (PFDS)N15 | 0.01 | ug/L | < 0.01 | < 0.01 |
| 13C3-PFBS (surr.) | 1 | % | 90 | 72 |
| 18O2-PFHxS (surr.) | 1 | % | 99 | 88 |
| 13C8-PFOS (surr.) | 1 | % | 92 | 90 |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| 13C2-4:2 FTSA (surr.) | 1 | % | 73 | 83 |
| 13C2-6:2 FTSA (surr.) | 1 | % | 76 | 69 |
| 13C2-8:2 FTSA (surr.) | 1 | % | 91 | 106 |
| 13C2-10:2 FTSA (surr.) | 1 | % | 96 | 98 |
| **PFASs Summations** | | | | |
| Sum (PFHxS + PFOS)* | 0.01 | ug/L | < 0.01 | < 0.01 |
| Sum of US EPA PFAS (PFOS + PFOA)* | 0.01 | ug/L | < 0.01 | < 0.01 |
| Sum of enHealth PFAS (PFHxS + PFOS + PFOA)* | 0.01 | ug/L | < 0.01 | < 0.01 |
| Sum of WA DWER PFAS (n=10)* | 0.05 | ug/L | < 0.05 | < 0.05 |
| Sum of PFASs (n=30)* | 0.1 | ug/L | < 0.1 | < 0.1 |

Environment Testing

### 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 |
|---|---|---|---|
| AUS Leaching Procedure | | | |
| pH (initial) | Melbourne | Apr 05, 2022 | 0 Days |
| - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes | | | |
| pH (Leachate fluid) | Melbourne | Apr 05, 2022 | 0 Days |
| - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes | | | |
| pH (off) | Melbourne | Apr 05, 2022 | 0 Days |
| - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes | | | |
| Per- and Polyfluoroalkyl Substances (PFASs) | | | |
| Perfluoroalkyl carboxylic acids (PFCAs) | Melbourne | Apr 05, 2022 | 28 Days |
| - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) | | | |
| Perfluoroalkyl sulfonamido substances | Melbourne | Apr 05, 2022 | 28 Days |
| - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) | | | |
| Perfluoroalkyl sulfonic acids (PFSAs) | Melbourne | Apr 05, 2022 | 28 Days |
| - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) | | | |
| n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) | Melbourne | Apr 05, 2022 | 28 Days |
| - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) | | | |
| PFASs Summations | Melbourne | Apr 02, 2022 | |
| - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) | | | |

**Company Name:** Agon Environmental Pty Ltd - VIC
**Address:** 3/224 Glen Osmond Road
Fullarton
SA 5063

**Project Name:** 20220402044310-Eurofin-21
**Project ID:** JC0927

**Order No.:**
**Report #:** 876688
**Phone:** 08 8338 1009
**Fax:**

**Received:** Apr 2, 2022 11:15 AM
**Due:** Apr 11, 2022
**Priority:** 5 Day
**Contact Name:** Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

| **Sample Detail** | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **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 | SX_OB_20220401_20_10_SS_Triplicate_EUF | Apr 01, 2022 | 8:10PM | Soil | M22-Ap0002509 | | X | X | X |
| 2 | SX_OB_20220401_20_02_SS_Primary_EUF | Apr 01, 2022 | 8:02PM | Soil | M22-Ap0002510 | | X | X | X |
| 3 | SX_OB_20220402_00_08_SS_Primary_EUF | Apr 02, 2022 | 12:08AM | Soil | M22-Ap0002511 | | X | X | X |

eurofins Environment Testing

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ABN: 50 005 085 521

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**Sydney**
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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
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**Christchurch**
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| | | | | | |
|---|---|---|---|---|---|
| **Company Name:** | Agon Environmental Pty Ltd - VIC | **Order No.:** | | **Received:** | Apr 2, 2022 11:15 AM |
| **Address:** | 3/224 Glen Osmond Road<br>Fullarton<br>SA 5063 | **Report #:** | 876688 | **Due:** | Apr 11, 2022 |
| | | **Phone:** | 08 8338 1009 | **Priority:** | 5 Day |
| | | **Fax:** | | **Contact Name:** | Agon Lab Reports (Spoil Project) |
| **Project Name:** | 20220402044310-Eurofin-21 | | | | |
| **Project ID:** | JC0927 | | | | |

**Eurofins Analytical Services Manager : Michael Cassidy**

| **Sample Detail** | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| 4 | SX_OB_20220402_03_59_SS_Primary_EUF | Apr 02, 2022 | 3:59AM | Soil | M22-Ap0002512 | | X | X | X |
| 5 | SX_OB_20220402_04_00_SS_Duplicate_EUF | Apr 02, 2022 | 4:00AM | Soil | M22-Ap0002513 | | X | X | X |
| 6 | SX_OB_20220402_04_13_SR_Rinsate_EUF | Apr 02, 2022 | 4:13AM | Water | M22-Ap0002514 | | | X | |
| 7 | SX_OB_20220402_04_14_S | Apr 02, 2022 | 4:14AM | Water | M22-Ap0002515 | | | X | |

eurofins Environment Testing

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**Eurofins Environment Testing Australia Pty Ltd**
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**Brisbane**
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NATA # 1261 Site # 20794

**Newcastle**
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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
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NATA # 2377 Site # 2370

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

**Auckland**
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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:** | Agon Environmental Pty Ltd - VIC | **Order No.:** | | **Received:** | Apr 2, 2022 11:15 AM |
| **Address:** | 3/224 Glen Osmond Road<br>Fullarton<br>SA 5063 | **Report #:** | 876688 | **Due:** | Apr 11, 2022 |
| | | **Phone:** | 08 8338 1009 | **Priority:** | 5 Day |
| | | **Fax:** | | **Contact Name:** | Agon Lab Reports (Spoil Project) |
| **Project Name:** | 20220402044310-Eurofin-21 | | | | |
| **Project ID:** | JC0927 | | | | |

**Eurofins Analytical Services Manager : Michael Cassidy**

| **Sample Detail** | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| | B_Blank_EUF | | | | | | | | |
| 8 | SX_OB_20220401_20_10_SS_Triplicate_EUF | Apr 01, 2022 | 8:10PM | AUS Leachate - pH 5.0 | M22-Ap0002516 | X | | X | |
| 9 | SX_OB_20220401_20_02_SS_Primary_EUF | Apr 01, 2022 | 8:02PM | AUS Leachate - pH 5.0 | M22-Ap0002517 | X | | X | |
| 10 | SX_OB_20220402_00_08_SS_Primary_EUF | Apr 02, 2022 | 12:08AM | AUS Leachate - pH 5.0 | M22-Ap0002518 | X | | X | |
| 11 | SX_OB_20220 | Apr 02, 2022 | 3:59AM | AUS Leachate | M22- | X | | X | |

**Company Name:** Agon Environmental Pty Ltd - VIC
**Address:** 3/224 Glen Osmond Road
Fullarton
SA 5063

**Project Name:** 20220402044310-Eurofin-21
**Project ID:** JC0927

**Order No.:**
**Report #:** 876688
**Phone:** 08 8338 1009
**Fax:**

**Received:** Apr 2, 2022 11:15 AM
**Due:** Apr 11, 2022
**Priority:** 5 Day
**Contact Name:** Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

| **Sample Detail** | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| | 402_03_59_SS_Primary_EUF | | | - pH 5.0 | Ap0002519 | | | | |
| 12 | SX_OB_20220402_04_00_SS_Duplicate_EUF | Apr 02, 2022 | 4:00AM | AUS Leachate - pH 5.0 | M22-Ap0002520 | X | | X | |
| 13 | SX_OB_20220401_20_10_SS_Triplicate_EUF | Apr 01, 2022 | 8:10PM | AUS Leachate - Reagent Water | M22-Ap0002521 | X | | X | |
| 14 | SX_OB_20220401_20_02_SS_Primary_EU | Apr 01, 2022 | 8:02PM | AUS Leachate - Reagent Water | M22-Ap0002522 | X | | X | |

| | | | |
|---|---|---|---|
| **Company Name:** | Agon Environmental Pty Ltd - VIC | **Order No.:** | |
| **Address:** | 3/224 Glen Osmond Road<br>Fullarton<br>SA 5063 | **Report #:** | 876688 |
| | | **Phone:** | 08 8338 1009 |
| | | **Fax:** | |
| **Project Name:** | 20220402044310-Eurofin-21 | **Received:** | Apr 2, 2022 11:15 AM |
| **Project ID:** | JC0927 | **Due:** | Apr 11, 2022 |
| | | **Priority:** | 5 Day |
| | | **Contact Name:** | Agon Lab Reports (Spoil Project) |

**Eurofins Analytical Services Manager : Michael Cassidy**

| Sample Detail | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| | F | | | | | | | | |
| 15 | SX_OB_20220402_00_08_SS_Primary_EUF | Apr 02, 2022 | 12:08AM | AUS Leachate - Reagent Water | M22-Ap0002523 | X | | X | |
| 16 | SX_OB_20220402_03_59_SS_Primary_EUF | Apr 02, 2022 | 3:59AM | AUS Leachate - Reagent Water | M22-Ap0002524 | X | | X | |
| 17 | SX_OB_20220402_04_00_SS_Duplicate_EUF | Apr 02, 2022 | 4:00AM | AUS Leachate - Reagent Water | M22-Ap0002525 | X | | X | |
| **Test Counts** | | | | | | 10 | 5 | 17 | 5 |

## 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.

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### 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.

Eurofins Environment Testing

**Quality Control Results**

| Test | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|
| **Method Blank** | | | | | | | |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | | | | |
| Perfluorobutanoic acid (PFBA) | ug/L | < 0.05 | | | 0.05 | Pass | |
| Perfluoropentanoic acid (PFPeA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorohexanoic acid (PFHxA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluoroheptanoic acid (PFHpA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorooctanoic acid (PFOA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorononanoic acid (PFNA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorodecanoic acid (PFDA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluoroundecanoic acid (PFUnDA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorododecanoic acid (PFDoDA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorotridecanoic acid (PFTrDA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorotetradecanoic acid (PFTeDA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| **Method Blank** | | | | | | | |
| **Perfluoroalkyl sulfonamido substances** | | | | | | | |
| Perfluorooctane sulfonamide (FOSA) | ug/L | < 0.05 | | | 0.05 | Pass | |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) | ug/L | < 0.05 | | | 0.05 | Pass | |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) | ug/L | < 0.05 | | | 0.05 | Pass | |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) | ug/L | < 0.05 | | | 0.05 | Pass | |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) | ug/L | < 0.05 | | | 0.05 | Pass | |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) | ug/L | < 0.05 | | | 0.05 | Pass | |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) | ug/L | < 0.05 | | | 0.05 | Pass | |
| **Method Blank** | | | | | | | |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorononanesulfonic acid (PFNS) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluoropropanesulfonic acid (PFPrS) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluoropentanesulfonic acid (PFPeS) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorohexanesulfonic acid (PFHxS) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluoroheptanesulfonic acid (PFHpS) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorooctanesulfonic acid (PFOS) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorodecanesulfonic acid (PFDS) | ug/L | < 0.01 | | | 0.01 | Pass | |
| **Method Blank** | | | | | | | |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) | ug/L | < 0.05 | | | 0.05 | Pass | |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | | | | |
| Perfluorobutanoic acid (PFBA) | % | 111 | | | 50-150 | Pass | |
| Perfluoropentanoic acid (PFPeA) | % | 111 | | | 50-150 | Pass | |
| Perfluorohexanoic acid (PFHxA) | % | 112 | | | 50-150 | Pass | |
| Perfluoroheptanoic acid (PFHpA) | % | 111 | | | 50-150 | Pass | |
| Perfluorooctanoic acid (PFOA) | % | 105 | | | 50-150 | Pass | |
| Perfluorononanoic acid (PFNA) | % | 112 | | | 50-150 | Pass | |
| Perfluorodecanoic acid (PFDA) | % | 114 | | | 50-150 | Pass | |
| Perfluoroundecanoic acid (PFUnDA) | % | 115 | | | 50-150 | Pass | |
| Perfluorododecanoic acid (PFDoDA) | % | 107 | | | 50-150 | Pass | |
| Perfluorotridecanoic acid (PFTrDA) | % | 104 | | | 50-150 | Pass | |
| Perfluorotetradecanoic acid (PFTeDA) | % | 108 | | | 50-150 | Pass | |

| Test | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|
| **LCS - % Recovery** | | | | | | | |
| **Perfluoroalkyl sulfonamido substances** | | | | | | | |
| Perfluorooctane sulfonamide (FOSA) | % | 119 | | | 50-150 | Pass | |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) | % | 115 | | | 50-150 | Pass | |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) | % | 97 | | | 50-150 | Pass | |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) | % | 110 | | | 50-150 | Pass | |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) | % | 114 | | | 50-150 | Pass | |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) | % | 112 | | | 50-150 | Pass | |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) | % | 98 | | | 50-150 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | % | 106 | | | 50-150 | Pass | |
| Perfluorononanesulfonic acid (PFNS) | % | 119 | | | 50-150 | Pass | |
| Perfluoropropanesulfonic acid (PFPrS) | % | 128 | | | 50-150 | Pass | |
| Perfluoropentanesulfonic acid (PFPeS) | % | 107 | | | 50-150 | Pass | |
| Perfluorohexanesulfonic acid (PFHxS) | % | 104 | | | 50-150 | Pass | |
| Perfluoroheptanesulfonic acid (PFHpS) | % | 105 | | | 50-150 | Pass | |
| Perfluorooctanesulfonic acid (PFOS) | % | 113 | | | 50-150 | Pass | |
| Perfluorodecanesulfonic acid (PFDS) | % | 112 | | | 50-150 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) | % | 116 | | | 50-150 | Pass | |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) | % | 115 | | | 50-150 | Pass | |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) | % | 116 | | | 50-150 | Pass | |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) | % | 107 | | | 50-150 | Pass | |

| Test | Lab Sample ID | QA Source | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|---|---|
| **Duplicate** | | | | | | | | | |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | Result 1 | Result 2 | RPD | | | |
| Perfluorobutanoic acid (PFBA) | M22-Ap0002522 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Perfluoropentanoic acid (PFPeA) | M22-Ap0002522 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorohexanoic acid (PFHxA) | M22-Ap0002522 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluoroheptanoic acid (PFHpA) | M22-Ap0002522 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorooctanoic acid (PFOA) | M22-Ap0002522 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorononanoic acid (PFNA) | M22-Ap0002522 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorodecanoic acid (PFDA) | M22-Ap0002522 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluoroundecanoic acid (PFUnDA) | M22-Ap0002522 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorododecanoic acid (PFDoDA) | M22-Ap0002522 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorotridecanoic acid (PFTrDA) | M22-Ap0002522 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorotetradecanoic acid (PFTeDA) | M22-Ap0002522 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Perfluoroalkyl sulfonamido substances** | | | | Result 1 | Result 2 | RPD | | | |
| Perfluorooctane sulfonamide (FOSA) | M22-Ap0002522 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) | M22-Ap0002522 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) | M22-Ap0002522 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) | M22-Ap0002522 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) | M22-Ap0002522 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |

eurofins Environment Testing

| Duplicate | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluoroalkyl sulfonamido substances** | | | | Result 1 | Result 2 | RPD | | | |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) | M22-Ap0002522 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) | M22-Ap0002522 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | Result 1 | Result 2 | RPD | | | |
| Perfluorobutanesulfonic acid (PFBS) | M22-Ap0002522 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorononanesulfonic acid (PFNS) | M22-Ap0002522 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluoropropanesulfonic acid (PFPrS) | M22-Ap0002522 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluoropentanesulfonic acid (PFPeS) | M22-Ap0002522 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorohexanesulfonic acid (PFHxS) | M22-Ap0002522 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluoroheptanesulfonic acid (PFHpS) | M22-Ap0002522 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorooctanesulfonic acid (PFOS) | M22-Ap0002522 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorodecanesulfonic acid (PFDS) | M22-Ap0002522 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | Result 1 | Result 2 | RPD | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) | M22-Ap0002522 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) | M22-Ap0002522 | CP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) | M22-Ap0002522 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) | M22-Ap0002522 | CP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |

## Comments

### Sample Integrity

| | |
|---|---|
| Custody Seals Intact (if used) | N/A |
| Attempt to Chill was evident | No |
| 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 |
|---|---|
| C01 | Leachate Fluid Key: 1 - pH 5.0; 2 - pH 2.9; 3 - pH 9.2; 4 - Reagent (DI) water; 5 - Client sample, 6 - other |
| N11 | Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds. |
| N15 | Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation). |

### Authorised by:

| | |
|---|---|
| Catherine Wilson | Analytical Services Manager |
| Joseph Edouard | Senior Analyst (VIC) |
| Mary Makarios | Senior Analyst (NSW) |

**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.

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Certificate of Analysis

Environment Testing

**Agon Environmental Pty Ltd - VIC**
**3/224 Glen Osmond Road**
**Fullarton**
**SA 5063**

**NATA Accredited**
**Accreditation Number 1261**
**Site Number 1254**

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

**Attention:** **Agon Lab Reports (Spoil Project)**

**Report** **876688-S**
Project name 20220402044310-Eurofin-21
Project ID JC0927
Received Date Apr 02, 2022

| **Client Sample ID** | | | **SX_OB_20220401_20_10_SS_Triplicate_EUF** | **SX_OB_20220401_20_02_SS_Primary_EUF** | **SX_OB_20220402_00_08_SS_Primary_EUF** | **SX_OB_20220402_03_59_SS_Primary_EUF** |
|---|---|---|---|---|---|---|
| **Sample Matrix** | | | **Soil** | **Soil** | **Soil** | **Soil** |
| **Eurofins Sample No.** | | | **M22-Ap0002509** | **M22-Ap0002510** | **M22-Ap0002511** | **M22-Ap0002512** |
| **Date Sampled** | | | **Apr 01, 2022** | **Apr 01, 2022** | **Apr 02, 2022** | **Apr 02, 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 |
| **Volatile Organics** | | | | | | |
| Hexachlorobutadiene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| **Volatile Organics** | | | | | | |
| 1.1-Dichloroethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.2.4-Trichlorobenzene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.1-Dichloroethene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.1.1-Trichloroethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.1.1.2-Tetrachloroethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.1.2-Trichloroethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.1.2.2-Tetrachloroethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.2-Dibromoethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.2-Dichlorobenzene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.2-Dichloroethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.2-Dichloropropane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.2.3-Trichloropropane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.2.4-Trimethylbenzene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.3-Dichlorobenzene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.3-Dichloropropane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.3.5-Trimethylbenzene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 1.4-Dichlorobenzene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |

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| Client Sample ID | | | SX_OB_20220401_20_10_SS_Triplicate_EUF | SX_OB_20220401_20_02_SS_Primary_EUF | SX_OB_20220402_00_08_SS_Primary_EUF | SX_OB_20220402_03_59_SS_Primary_EUF |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | M22-Ap0002509 | M22-Ap0002510 | M22-Ap0002511 | M22-Ap0002512 |
| Date Sampled | | | Apr 01, 2022 | Apr 01, 2022 | Apr 02, 2022 | Apr 02, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Volatile Organics** | | | | | | |
| 2-Butanone (MEK) | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 2-Propanone (Acetone) | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 4-Chlorotoluene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 4-Methyl-2-pentanone (MIBK) | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Allyl chloride | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Benzene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Bromobenzene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Bromochloromethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Bromodichloromethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Bromoform | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Bromomethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Carbon disulfide | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Carbon Tetrachloride | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Chlorobenzene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Chloroethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Chloroform | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Chloromethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| cis-1.2-Dichloroethene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| cis-1.3-Dichloropropene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Dibromochloromethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Dibromomethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Dichlorodifluoromethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Ethylbenzene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Iodomethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Isopropyl benzene (Cumene) | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| m&p-Xylenes | 0.2 | mg/kg | < 0.2 | < 0.2 | < 0.2 | < 0.2 |
| Methylene Chloride | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| o-Xylene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Styrene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Tetrachloroethene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Toluene | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| trans-1.2-Dichloroethene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| trans-1.3-Dichloropropene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Trichloroethene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Trichlorofluoromethane | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Vinyl chloride | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Xylenes - Total* | 0.3 | mg/kg | < 0.3 | < 0.3 | < 0.3 | < 0.3 |
| Total MAH* | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Vic EPA IWRG 621 CHC (Total)* | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Vic EPA IWRG 621 Other CHC (Total)* | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 4-Bromofluorobenzene (surr.) | 1 | % | 87 | 74 | 85 | 57 |
| Toluene-d8 (surr.) | 1 | % | 89 | 69 | 90 | 50 |
| **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 |

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|---|---|---|---|---|---|---|
| **Sample Matrix** | | | **Soil** | **Soil** | **Soil** | **Soil** |
| **Eurofins Sample No.** | | | **M22-Ap0002509** | **M22-Ap0002510** | **M22-Ap0002511** | **M22-Ap0002512** |
| **Date Sampled** | | | Apr 01, 2022 | Apr 01, 2022 | Apr 02, 2022 | Apr 02, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | |
| 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 | 54 | 91 | 97 |
| p-Terphenyl-d14 (surr.) | 1 | % | 111 | 105 | 109 | 119 |
| **Organochlorine Pesticides** | | | | | | |
| Chlordanes - Total | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 4.4'-DDD | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| 4.4'-DDE | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| 4.4'-DDT | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| a-HCH | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Aldrin | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| b-HCH | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| d-HCH | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Dieldrin | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Endosulfan I | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Endosulfan II | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Endosulfan sulphate | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Endrin | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Endrin aldehyde | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Endrin ketone | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| g-HCH (Lindane) | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Heptachlor | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Heptachlor epoxide | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Hexachlorobenzene | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Methoxychlor | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Toxaphene | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Aldrin and Dieldrin (Total)* | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| DDT + DDE + DDD (Total)* | 0.05 | mg/kg | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Vic EPA IWRG 621 OCP (Total)* | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Vic EPA IWRG 621 Other OCP (Total)* | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Dibutylchlorendate (surr.) | 1 | % | 100 | 92 | 77 | 92 |
| Tetrachloro-m-xylene (surr.) | 1 | % | 139 | 137 | 134 | 68 |

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| Client Sample ID | | | SX_OB_20220401_20_10_SS_Triplicate_EUF | SX_OB_20220401_20_02_SS_Primary_EUF | SX_OB_20220402_00_08_SS_Primary_EUF | SX_OB_20220402_03_59_SS_Primary_EUF |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | M22-Ap0002509 | M22-Ap0002510 | M22-Ap0002511 | M22-Ap0002512 |
| Date Sampled | | | Apr 01, 2022 | Apr 01, 2022 | Apr 02, 2022 | Apr 02, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Polychlorinated Biphenyls** | | | | | | |
| Aroclor-1016 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Aroclor-1221 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Aroclor-1232 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Aroclor-1242 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Aroclor-1248 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Aroclor-1254 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Aroclor-1260 | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Total PCB* | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Dibutylchlorendate (surr.) | 1 | % | 100 | 92 | 77 | 92 |
| Tetrachloro-m-xylene (surr.) | 1 | % | 139 | 137 | 134 | 68 |
| **Phenols (Halogenated)** | | | | | | |
| 2-Chlorophenol | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 2.4-Dichlorophenol | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 2.4.5-Trichlorophenol | 1 | mg/kg | < 1 | < 1 | < 1 | < 1 |
| 2.4.6-Trichlorophenol | 1 | mg/kg | < 1 | < 1 | < 1 | < 1 |
| 2.6-Dichlorophenol | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 4-Chloro-3-methylphenol | 1 | mg/kg | < 1 | < 1 | < 1 | < 1 |
| Pentachlorophenol | 1 | mg/kg | < 1 | < 1 | < 1 | < 1 |
| Tetrachlorophenols - Total | 10 | mg/kg | < 10 | < 10 | < 10 | < 10 |
| Total Halogenated Phenol* | 1 | mg/kg | < 1 | < 1 | < 1 | < 1 |
| **Phenols (non-Halogenated)** | | | | | | |
| 2-Cyclohexyl-4.6-dinitrophenol | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| 2-Methyl-4.6-dinitrophenol | 5 | mg/kg | < 5 | < 5 | < 5 | < 5 |
| 2-Nitrophenol | 1.0 | mg/kg | < 1 | < 1 | < 1 | < 1 |
| 2.4-Dimethylphenol | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 2.4-Dinitrophenol | 5 | mg/kg | < 5 | < 5 | < 5 | < 5 |
| 2-Methylphenol (o-Cresol) | 0.2 | mg/kg | < 0.2 | < 0.2 | < 0.2 | < 0.2 |
| 3&4-Methylphenol (m&p-Cresol) | 0.4 | mg/kg | < 0.4 | < 0.4 | < 0.4 | < 0.4 |
| Total cresols* | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| 4-Nitrophenol | 5 | mg/kg | < 5 | < 5 | < 5 | < 5 |
| Dinoseb | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| Phenol | 0.5 | mg/kg | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Phenol-d6 (surr.) | 1 | % | 75 | 72 | 83 | 77 |
| Total Non-Halogenated Phenol* | 20 | mg/kg | < 20 | < 20 | < 20 | < 20 |
| | | | | | | |
| Chromium (hexavalent) | 1 | mg/kg | < 1 | < 1 | < 1 | < 1 |
| Cyanide (total) | 5 | mg/kg | < 5 | < 5 | < 5 | < 5 |
| Fluoride (Total) | 100 | mg/kg | < 100 | < 100 | < 100 | < 100 |
| pH (1:5 Aqueous extract at 25°C as rec.) | 0.1 | pH Units | 8.4 | 8.6 | 8.5 | 8.9 |
| % Moisture | 1 | % | 27 | 26 | 28 | 26 |
| **Heavy Metals** | | | | | | |
| Arsenic | 2 | mg/kg | 31 | 39 | 29 | 23 |
| Cadmium | 0.4 | mg/kg | < 0.4 | < 0.4 | < 0.4 | < 0.4 |
| Chromium | 5 | mg/kg | 120 | 110 | 100 | 130 |
| Copper | 5 | mg/kg | 59 | 59 | 57 | 68 |
| Lead | 5 | mg/kg | < 5 | < 5 | < 5 | < 5 |
| Mercury | 0.1 | mg/kg | < 0.1 | < 0.1 | < 0.1 | < 0.1 |

| Client Sample ID | | | SX_OB_20220401_20_10_SS_Triplicate_EUF | SX_OB_20220401_20_02_SS_Primary_EUF | SX_OB_20220402_00_08_SS_Primary_EUF | SX_OB_20220402_03_59_SS_Primary_EUF |
|---|---|---|---|---|---|---|
| **Sample Matrix** | | | **Soil** | **Soil** | **Soil** | **Soil** |
| **Eurofins Sample No.** | | | **M22-Ap0002509** | **M22-Ap0002510** | **M22-Ap0002511** | **M22-Ap0002512** |
| **Date Sampled** | | | **Apr 01, 2022** | **Apr 01, 2022** | **Apr 02, 2022** | **Apr 02, 2022** |
| Test/Reference | LOR | Unit | | | | |
| **Heavy Metals** | | | | | | |
| Molybdenum | 5 | mg/kg | < 5 | < 5 | < 5 | < 5 |
| Nickel | 5 | mg/kg | 190 | 190 | 180 | 220 |
| Selenium | 2 | mg/kg | < 2 | < 2 | < 2 | < 2 |
| Silver | 2 | mg/kg | < 2 | < 2 | < 2 | < 2 |
| Tin | 10 | mg/kg | < 10 | < 10 | < 10 | < 10 |
| Zinc | 5 | mg/kg | 110 | 110 | 110 | 120 |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | | | |
| Perfluorobutanoic acid (PFBA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluoropentanoic acid (PFPeA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluorohexanoic acid (PFHxA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluoroheptanoic acid (PFHpA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluorooctanoic acid (PFOA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluorononanoic acid (PFNA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluorodecanoic acid (PFDA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluoroundecanoic acid (PFUnDA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluorododecanoic acid (PFDoDA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluorotridecanoic acid (PFTrDA)[N15] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluorotetradecanoic acid (PFTeDA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| 13C4-PFBA (surr.) | 1 | % | 102 | 105 | 105 | 103 |
| 13C5-PFPeA (surr.) | 1 | % | 84 | 75 | 97 | 85 |
| 13C5-PFHxA (surr.) | 1 | % | 91 | 97 | 99 | 98 |
| 13C4-PFHpA (surr.) | 1 | % | 91 | 94 | 91 | 91 |
| 13C8-PFOA (surr.) | 1 | % | 95 | 96 | 100 | 97 |
| 13C5-PFNA (surr.) | 1 | % | 81 | 81 | 70 | 73 |
| 13C6-PFDA (surr.) | 1 | % | 104 | 102 | 106 | 102 |
| 13C2-PFUnDA (surr.) | 1 | % | 120 | 108 | 123 | 121 |
| 13C2-PFDoDA (surr.) | 1 | % | 103 | 99 | 110 | 105 |
| 13C2-PFTeDA (surr.) | 1 | % | 92 | 90 | 92 | 90 |
| **Perfluoroalkyl sulfonamido substances** | | | | | | |
| Perfluorooctane sulfonamide (FOSA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)[N11] | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11] | 10 | ug/kg | < 10 | < 10 | < 10 | < 10 |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11] | 10 | ug/kg | < 10 | < 10 | < 10 | < 10 |
| 13C8-FOSA (surr.) | 1 | % | 135 | 120 | 42 | 69 |
| D3-N-MeFOSA (surr.) | 1 | % | 112 | 113 | 108 | 119 |
| D5-N-EtFOSA (surr.) | 1 | % | 133 | 129 | 137 | 135 |
| D7-N-MeFOSE (surr.) | 1 | % | 100 | 81 | 121 | 110 |
| D9-N-EtFOSE (surr.) | 1 | % | 97 | 91 | 105 | 94 |
| D5-N-EtFOSAA (surr.) | 1 | % | 103 | 126 | 109 | 96 |
| D3-N-MeFOSAA (surr.) | 1 | % | 104 | 100 | 132 | 119 |

| Client Sample ID | | | SX_OB_20220401_20_10_SS_Triplicate_EUF | SX_OB_20220401_20_02_SS_Primary_EUF | SX_OB_20220402_00_08_SS_Primary_EUF | SX_OB_20220402_03_59_SS_Primary_EUF |
|---|---|---|---|---|---|---|
| Sample Matrix | | | Soil | Soil | Soil | Soil |
| Eurofins Sample No. | | | M22-Ap0002509 | M22-Ap0002510 | M22-Ap0002511 | M22-Ap0002512 |
| Date Sampled | | | Apr 01, 2022 | Apr 01, 2022 | Apr 02, 2022 | Apr 02, 2022 |
| Test/Reference | LOR | Unit | | | | |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | | | |
| Perfluorobutanesulfonic acid (PFBS)N11 | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluorononanesulfonic acid (PFNS)N15 | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluoropropanesulfonic acid (PFPrS)N15 | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluoropentanesulfonic acid (PFPeS)N15 | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluorohexanesulfonic acid (PFHxS)N11 | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluoroheptanesulfonic acid (PFHpS)N15 | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluorooctanesulfonic acid (PFOS)N11 | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Perfluorodecanesulfonic acid (PFDS)N15 | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| 13C3-PFBS (surr.) | 1 | % | 81 | 77 | 74 | 80 |
| 18O2-PFHxS (surr.) | 1 | % | 72 | 88 | 61 | 76 |
| 13C8-PFOS (surr.) | 1 | % | 77 | 89 | 111 | 68 |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)N11 | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)N11 | 10 | ug/kg | < 10 | < 10 | < 10 | < 10 |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)N11 | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)N11 | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| 13C2-4:2 FTSA (surr.) | 1 | % | 110 | 104 | 108 | 105 |
| 13C2-6:2 FTSA (surr.) | 1 | % | 86 | 96 | 80 | 104 |
| 13C2-8:2 FTSA (surr.) | 1 | % | 103 | 122 | 106 | 119 |
| 13C2-10:2 FTSA (surr.) | 1 | % | 131 | 87 | 71 | 71 |
| **PFASs Summations** | | | | | | |
| Sum (PFHxS + PFOS)* | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Sum of US EPA PFAS (PFOS + PFOA)* | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Sum of enHealth PFAS (PFHxS + PFOS + PFOA)* | 5 | ug/kg | < 5 | < 5 | < 5 | < 5 |
| Sum of WA DWER PFAS (n=10)* | 10 | ug/kg | < 10 | < 10 | < 10 | < 10 |
| Sum of PFASs (n=30)* | 50 | ug/kg | < 50 | < 50 | < 50 | < 50 |

| Client Sample ID | | | SX_OB_20220402_04_00_SS_Duplicate_EUF |
|---|---|---|---|
| Sample Matrix | | | Soil |
| Eurofins Sample No. | | | M22-Ap0002513 |
| Date Sampled | | | Apr 02, 2022 |
| Test/Reference | LOR | Unit | |
| **Total Recoverable Hydrocarbons** | | | |
| TRH C6-C9 | 20 | mg/kg | < 20 |
| TRH C10-C14 | 20 | mg/kg | < 20 |
| TRH C15-C28 | 50 | mg/kg | < 50 |
| TRH C29-C36 | 50 | mg/kg | < 50 |
| TRH C10-C36 (Total) | 50 | mg/kg | < 50 |
| NaphthaleneN02 | 0.5 | mg/kg | < 0.5 |
| TRH C6-C10 | 20 | mg/kg | < 20 |

| Client Sample ID | | | SX_OB_20220402_04_00_SS_Duplicate_EUF |
|---|---|---|---|
| Sample Matrix | | | Soil |
| Eurofins Sample No. | | | M22-Ap0002513 |
| Date Sampled | | | Apr 02, 2022 |
| Test/Reference | LOR | Unit | |
| **Total Recoverable Hydrocarbons** | | | |
| TRH C6-C10 less BTEX (F1)[N04] | 20 | mg/kg | < 20 |
| TRH >C10-C16 | 50 | mg/kg | < 50 |
| TRH >C10-C16 less Naphthalene (F2)[N01] | 50 | mg/kg | < 50 |
| TRH >C16-C34 | 100 | mg/kg | < 100 |
| TRH >C34-C40 | 100 | mg/kg | < 100 |
| TRH >C10-C40 (total)* | 100 | mg/kg | < 100 |
| **Volatile Organics** | | | |
| Hexachlorobutadiene | 0.5 | mg/kg | < 0.5 |
| **Volatile Organics** | | | |
| 1.1-Dichloroethane | 0.5 | mg/kg | < 0.5 |
| 1.2.4-Trichlorobenzene | 0.5 | mg/kg | < 0.5 |
| 1.1-Dichloroethene | 0.5 | mg/kg | < 0.5 |
| 1.1.1-Trichloroethane | 0.5 | mg/kg | < 0.5 |
| 1.1.1.2-Tetrachloroethane | 0.5 | mg/kg | < 0.5 |
| 1.1.2-Trichloroethane | 0.5 | mg/kg | < 0.5 |
| 1.1.2.2-Tetrachloroethane | 0.5 | mg/kg | < 0.5 |
| 1.2-Dibromoethane | 0.5 | mg/kg | < 0.5 |
| 1.2-Dichlorobenzene | 0.5 | mg/kg | < 0.5 |
| 1.2-Dichloroethane | 0.5 | mg/kg | < 0.5 |
| 1.2-Dichloropropane | 0.5 | mg/kg | < 0.5 |
| 1.2.3-Trichloropropane | 0.5 | mg/kg | < 0.5 |
| 1.2.4-Trimethylbenzene | 0.5 | mg/kg | < 0.5 |
| 1.3-Dichlorobenzene | 0.5 | mg/kg | < 0.5 |
| 1.3-Dichloropropane | 0.5 | mg/kg | < 0.5 |
| 1.3.5-Trimethylbenzene | 0.5 | mg/kg | < 0.5 |
| 1.4-Dichlorobenzene | 0.5 | mg/kg | < 0.5 |
| 2-Butanone (MEK) | 0.5 | mg/kg | < 0.5 |
| 2-Propanone (Acetone) | 0.5 | mg/kg | < 0.5 |
| 4-Chlorotoluene | 0.5 | mg/kg | < 0.5 |
| 4-Methyl-2-pentanone (MIBK) | 0.5 | mg/kg | < 0.5 |
| Allyl chloride | 0.5 | mg/kg | < 0.5 |
| Benzene | 0.1 | mg/kg | < 0.1 |
| Bromobenzene | 0.5 | mg/kg | < 0.5 |
| Bromochloromethane | 0.5 | mg/kg | < 0.5 |
| Bromodichloromethane | 0.5 | mg/kg | < 0.5 |
| Bromoform | 0.5 | mg/kg | < 0.5 |
| Bromomethane | 0.5 | mg/kg | < 0.5 |
| Carbon disulfide | 0.5 | mg/kg | < 0.5 |
| Carbon Tetrachloride | 0.5 | mg/kg | < 0.5 |
| Chlorobenzene | 0.5 | mg/kg | < 0.5 |
| Chloroethane | 0.5 | mg/kg | < 0.5 |
| Chloroform | 0.5 | mg/kg | < 0.5 |
| Chloromethane | 0.5 | mg/kg | < 0.5 |
| cis-1.2-Dichloroethene | 0.5 | mg/kg | < 0.5 |
| cis-1.3-Dichloropropene | 0.5 | mg/kg | < 0.5 |
| Dibromochloromethane | 0.5 | mg/kg | < 0.5 |
| Dibromomethane | 0.5 | mg/kg | < 0.5 |

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| Client Sample ID | | | SX_OB_20220402_04_00_SS_Duplicate_EUF |
|---|---|---|---|
| **Sample Matrix** | | | **Soil** |
| **Eurofins Sample No.** | | | **M22-Ap0002513** |
| **Date Sampled** | | | **Apr 02, 2022** |
| Test/Reference | LOR | Unit | |
| **Volatile Organics** | | | |
| Dichlorodifluoromethane | 0.5 | mg/kg | < 0.5 |
| Ethylbenzene | 0.1 | mg/kg | < 0.1 |
| Iodomethane | 0.5 | mg/kg | < 0.5 |
| Isopropyl benzene (Cumene) | 0.5 | mg/kg | < 0.5 |
| m&p-Xylenes | 0.2 | mg/kg | < 0.2 |
| Methylene Chloride | 0.5 | mg/kg | < 0.5 |
| o-Xylene | 0.1 | mg/kg | < 0.1 |
| Styrene | 0.5 | mg/kg | < 0.5 |
| Tetrachloroethene | 0.5 | mg/kg | < 0.5 |
| Toluene | 0.1 | mg/kg | < 0.1 |
| trans-1.2-Dichloroethene | 0.5 | mg/kg | < 0.5 |
| trans-1.3-Dichloropropene | 0.5 | mg/kg | < 0.5 |
| Trichloroethene | 0.5 | mg/kg | < 0.5 |
| Trichlorofluoromethane | 0.5 | mg/kg | < 0.5 |
| Vinyl chloride | 0.5 | mg/kg | < 0.5 |
| Xylenes - Total* | 0.3 | mg/kg | < 0.3 |
| Total MAH* | 0.5 | mg/kg | < 0.5 |
| Vic EPA IWRG 621 CHC (Total)* | 0.5 | mg/kg | < 0.5 |
| Vic EPA IWRG 621 Other CHC (Total)* | 0.5 | mg/kg | < 0.5 |
| 4-Bromofluorobenzene (surr.) | 1 | % | 63 |
| Toluene-d8 (surr.) | 1 | % | 64 |
| **Polycyclic Aromatic Hydrocarbons** | | | |
| Benzo(a)pyrene TEQ (lower bound) * | 0.5 | mg/kg | < 0.5 |
| Benzo(a)pyrene TEQ (medium bound) * | 0.5 | mg/kg | 0.6 |
| Benzo(a)pyrene TEQ (upper bound) * | 0.5 | mg/kg | 1.2 |
| Acenaphthene | 0.5 | mg/kg | < 0.5 |
| Acenaphthylene | 0.5 | mg/kg | < 0.5 |
| Anthracene | 0.5 | mg/kg | < 0.5 |
| Benz(a)anthracene | 0.5 | mg/kg | < 0.5 |
| Benzo(a)pyrene | 0.5 | mg/kg | < 0.5 |
| Benzo(b&j)fluoranthene[N07] | 0.5 | mg/kg | < 0.5 |
| Benzo(g.h.i)perylene | 0.5 | mg/kg | < 0.5 |
| Benzo(k)fluoranthene | 0.5 | mg/kg | < 0.5 |
| Chrysene | 0.5 | mg/kg | < 0.5 |
| Dibenz(a.h)anthracene | 0.5 | mg/kg | < 0.5 |
| Fluoranthene | 0.5 | mg/kg | < 0.5 |
| Fluorene | 0.5 | mg/kg | < 0.5 |
| Indeno(1.2.3-cd)pyrene | 0.5 | mg/kg | < 0.5 |
| Naphthalene | 0.5 | mg/kg | < 0.5 |
| Phenanthrene | 0.5 | mg/kg | < 0.5 |
| Pyrene | 0.5 | mg/kg | < 0.5 |
| Total PAH* | 0.5 | mg/kg | < 0.5 |
| 2-Fluorobiphenyl (surr.) | 1 | % | 69 |
| p-Terphenyl-d14 (surr.) | 1 | % | 115 |

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| Client Sample ID | | | SX_OB_20220402_04_00_SS_Duplicate_EUF |
|---|---|---|---|
| Sample Matrix | | | Soil |
| Eurofins Sample No. | | | M22-Ap0002513 |
| Date Sampled | | | Apr 02, 2022 |
| Test/Reference | LOR | Unit | |
| **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 |
| 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 | % | 120 |
| Tetrachloro-m-xylene (surr.) | 1 | % | 81 |
| **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 | % | 120 |
| Tetrachloro-m-xylene (surr.) | 1 | % | 81 |
| **Phenols (Halogenated)** | | | |
| 2-Chlorophenol | 0.5 | mg/kg | < 0.5 |
| 2.4-Dichlorophenol | 0.5 | mg/kg | < 0.5 |
| 2.4.5-Trichlorophenol | 1 | mg/kg | < 1 |
| 2.4.6-Trichlorophenol | 1 | mg/kg | < 1 |
| 2.6-Dichlorophenol | 0.5 | mg/kg | < 0.5 |
| 4-Chloro-3-methylphenol | 1 | mg/kg | < 1 |
| Pentachlorophenol | 1 | mg/kg | < 1 |
| Tetrachlorophenols - Total | 10 | mg/kg | < 10 |
| Total Halogenated Phenol* | 1 | mg/kg | < 1 |

| | | | |
|---|---|---|---|
| **Client Sample ID** | | | **SX_OB_20220402_04_00_SS_Duplicate_EUF** |
| **Sample Matrix** | | | **Soil** |
| **Eurofins Sample No.** | | | **M22-Ap0002513** |
| **Date Sampled** | | | **Apr 02, 2022** |
| Test/Reference | LOR | Unit | |
| **Phenols (non-Halogenated)** | | | |
| 2-Cyclohexyl-4.6-dinitrophenol | 20 | mg/kg | < 20 |
| 2-Methyl-4.6-dinitrophenol | 5 | mg/kg | < 5 |
| 2-Nitrophenol | 1.0 | mg/kg | < 1 |
| 2.4-Dimethylphenol | 0.5 | mg/kg | < 0.5 |
| 2.4-Dinitrophenol | 5 | mg/kg | < 5 |
| 2-Methylphenol (o-Cresol) | 0.2 | mg/kg | < 0.2 |
| 3&4-Methylphenol (m&p-Cresol) | 0.4 | mg/kg | < 0.4 |
| Total cresols* | 0.5 | mg/kg | < 0.5 |
| 4-Nitrophenol | 5 | mg/kg | < 5 |
| Dinoseb | 20 | mg/kg | < 20 |
| Phenol | 0.5 | mg/kg | < 0.5 |
| Phenol-d6 (surr.) | 1 | % | 74 |
| Total Non-Halogenated Phenol* | 20 | mg/kg | < 20 |
| | | | |
| Chromium (hexavalent) | 1 | mg/kg | < 1 |
| Cyanide (total) | 5 | mg/kg | < 5 |
| Fluoride (Total) | 100 | mg/kg | < 100 |
| pH (1:5 Aqueous extract at 25°C as rec.) | 0.1 | pH Units | 8.5 |
| % Moisture | 1 | % | 28 |
| **Heavy Metals** | | | |
| Arsenic | 2 | mg/kg | 14 |
| Cadmium | 0.4 | mg/kg | < 0.4 |
| Chromium | 5 | mg/kg | 110 |
| Copper | 5 | mg/kg | 55 |
| Lead | 5 | mg/kg | < 5 |
| Mercury | 0.1 | mg/kg | < 0.1 |
| Molybdenum | 5 | mg/kg | < 5 |
| Nickel | 5 | mg/kg | 170 |
| Selenium | 2 | mg/kg | < 2 |
| Silver | 2 | mg/kg | < 2 |
| Tin | 10 | mg/kg | < 10 |
| Zinc | 5 | mg/kg | 91 |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | |
| Perfluorobutanoic acid (PFBA)[N11] | 5 | ug/kg | < 5 |
| Perfluoropentanoic acid (PFPeA)[N11] | 5 | ug/kg | < 5 |
| Perfluorohexanoic acid (PFHxA)[N11] | 5 | ug/kg | < 5 |
| Perfluoroheptanoic acid (PFHpA)[N11] | 5 | ug/kg | < 5 |
| Perfluorooctanoic acid (PFOA)[N11] | 5 | ug/kg | < 5 |
| Perfluorononanoic acid (PFNA)[N11] | 5 | ug/kg | < 5 |
| Perfluorodecanoic acid (PFDA)[N11] | 5 | ug/kg | < 5 |
| Perfluoroundecanoic acid (PFUnDA)[N11] | 5 | ug/kg | < 5 |
| Perfluorododecanoic acid (PFDoDA)[N11] | 5 | ug/kg | < 5 |
| Perfluorotridecanoic acid (PFTrDA)[N15] | 5 | ug/kg | < 5 |
| Perfluorotetradecanoic acid (PFTeDA)[N11] | 5 | ug/kg | < 5 |
| 13C4-PFBA (surr.) | 1 | % | 104 |
| 13C5-PFPeA (surr.) | 1 | % | 104 |
| 13C5-PFHxA (surr.) | 1 | % | 97 |

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| Client Sample ID | | | SX_OB_20220402_04_00_SS_Duplicate_EUF |
|---|---|---|---|
| Sample Matrix | | | Soil |
| Eurofins Sample No. | | | M22-Ap0002513 |
| Date Sampled | | | Apr 02, 2022 |
| Test/Reference | LOR | Unit | |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | |
| 13C4-PFHpA (surr.) | 1 | % | 92 |
| 13C8-PFOA (surr.) | 1 | % | 100 |
| 13C5-PFNA (surr.) | 1 | % | 97 |
| 13C6-PFDA (surr.) | 1 | % | 88 |
| 13C2-PFUnDA (surr.) | 1 | % | 101 |
| 13C2-PFDoDA (surr.) | 1 | % | 91 |
| 13C2-PFTeDA (surr.) | 1 | % | 95 |
| **Perfluoroalkyl sulfonamido substances** | | | |
| Perfluorooctane sulfonamide (FOSA)[N11] | 5 | ug/kg | < 5 |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11] | 5 | ug/kg | < 5 |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11] | 5 | ug/kg | < 5 |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)[N11] | 5 | ug/kg | < 5 |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)[N11] | 5 | ug/kg | < 5 |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11] | 10 | ug/kg | < 10 |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11] | 10 | ug/kg | < 10 |
| 13C8-FOSA (surr.) | 1 | % | 64 |
| D3-N-MeFOSA (surr.) | 1 | % | 118 |
| D5-N-EtFOSA (surr.) | 1 | % | 130 |
| D7-N-MeFOSE (surr.) | 1 | % | 110 |
| D9-N-EtFOSE (surr.) | 1 | % | 89 |
| D5-N-EtFOSAA (surr.) | 1 | % | 93 |
| D3-N-MeFOSAA (surr.) | 1 | % | 111 |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | |
| Perfluorobutanesulfonic acid (PFBS)[N11] | 5 | ug/kg | < 5 |
| Perfluorononanesulfonic acid (PFNS)[N15] | 5 | ug/kg | < 5 |
| Perfluoropropanesulfonic acid (PFPrS)[N15] | 5 | ug/kg | < 5 |
| Perfluoropentanesulfonic acid (PFPeS)[N15] | 5 | ug/kg | < 5 |
| Perfluorohexanesulfonic acid (PFHxS)[N11] | 5 | ug/kg | < 5 |
| Perfluoroheptanesulfonic acid (PFHpS)[N15] | 5 | ug/kg | < 5 |
| Perfluorooctanesulfonic acid (PFOS)[N11] | 5 | ug/kg | < 5 |
| Perfluorodecanesulfonic acid (PFDS)[N15] | 5 | ug/kg | < 5 |
| 13C3-PFBS (surr.) | 1 | % | 80 |
| 18O2-PFHxS (surr.) | 1 | % | 76 |
| 13C8-PFOS (surr.) | 1 | % | 69 |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11] | 5 | ug/kg | < 5 |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)[N11] | 10 | ug/kg | < 10 |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11] | 5 | ug/kg | < 5 |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11] | 5 | ug/kg | < 5 |
| 13C2-4:2 FTSA (surr.) | 1 | % | 115 |
| 13C2-6:2 FTSA (surr.) | 1 | % | 106 |

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Environment Testing

| Client Sample ID | | | SX_OB_20220402_04_00_SS_Duplicate_EUF |
|---|---|---|---|
| **Sample Matrix** | | | **Soil** |
| **Eurofins Sample No.** | | | **M22-Ap0002513** |
| **Date Sampled** | | | **Apr 02, 2022** |
| Test/Reference | LOR | Unit | |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | |
| 13C2-8:2 FTSA (surr.) | 1 | % | 118 |
| 13C2-10:2 FTSA (surr.) | 1 | % | 54 |
| **PFASs Summations** | | | |
| Sum (PFHxS + PFOS)* | 5 | ug/kg | < 5 |
| Sum of US EPA PFAS (PFOS + PFOA)* | 5 | ug/kg | < 5 |
| Sum of enHealth PFAS (PFHxS + PFOS + PFOA)* | 5 | ug/kg | < 5 |
| Sum of WA DWER PFAS (n=10)* | 10 | ug/kg | < 10 |
| Sum of PFASs (n=30)* | 50 | ug/kg | < 50 |

## 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 |
|---|---|---|---|
| IWRG 621 WGTP Suite | | | |
| Total Recoverable Hydrocarbons - 1999 NEPM Fractions | Melbourne | Apr 05, 2022 | 14 Days |
| - Method: LTM-ORG-2010 TRH C6-C40 | | | |
| Total Recoverable Hydrocarbons - 2013 NEPM Fractions | Melbourne | Apr 05, 2022 | 14 Days |
| - Method: LTM-ORG-2010 TRH C6-C40 | | | |
| Total Recoverable Hydrocarbons - 2013 NEPM Fractions | Melbourne | Apr 05, 2022 | 14 Days |
| - Method: LTM-ORG-2010 TRH C6-C40 | | | |
| Volatile Organics | Melbourne | Apr 05, 2022 | 7 Days |
| - Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS | | | |
| Volatile Organics | Melbourne | Apr 05, 2022 | 7 Days |
| - Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260) | | | |
| Polycyclic Aromatic Hydrocarbons | Melbourne | Apr 05, 2022 | 14 Days |
| - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water | | | |
| Organochlorine Pesticides | Melbourne | Apr 05, 2022 | 14 Days |
| - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270) | | | |
| Polychlorinated Biphenyls | Melbourne | Apr 05, 2022 | 28 Days |
| - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082) | | | |
| Phenols (Halogenated) | Melbourne | Apr 05, 2022 | 14 Days |
| - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water | | | |
| Phenols (non-Halogenated) | Melbourne | Apr 05, 2022 | 14 Days |
| - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water | | | |
| Chromium (hexavalent) | Melbourne | Apr 05, 2022 | 28 Days |
| - Method: LTM-INO-4100 Hexavalent Chromium by Spectrometric detection | | | |
| Cyanide (total) | Melbourne | Apr 06, 2022 | 14 Days |
| - Method: LTM-INO-4020 Total Free WAD Cyanide by CFA | | | |
| Fluoride (Total) | Melbourne | Apr 05, 2022 | 28 Days |
| - Method: LTM-INO-4150 Determination of Total Fluoride PART A – CIC | | | |
| pH (1:5 Aqueous extract at 25°C as rec.) | Melbourne | Apr 05, 2022 | 7 Days |
| - Method: LTM-GEN-7090 pH in soil by ISE | | | |
| Metals IWRG 621 : Metals M12 | Melbourne | Apr 05, 2022 | 28 Days |
| - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS | | | |
| % Moisture | Melbourne | Apr 02, 2022 | 14 Days |
| - Method: LTM-GEN-7080 Moisture | | | |
| Per- and Polyfluoroalkyl Substances (PFASs) | | | |
| Perfluoroalkyl carboxylic acids (PFCAs) | Melbourne | Apr 05, 2022 | 28 Days |
| - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) | | | |
| Perfluoroalkyl sulfonamido substances | Melbourne | Apr 05, 2022 | 28 Days |
| - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) | | | |
| Perfluoroalkyl sulfonic acids (PFSAs) | Melbourne | Apr 05, 2022 | 28 Days |
| - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) | | | |
| n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) | Melbourne | Apr 05, 2022 | 28 Days |
| - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) | | | |
| PFASs Summations | Melbourne | Apr 02, 2022 | |
| - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) | | | |

| | | | | | |
|---|---|---|---|---|---|
| **Company Name:** | Agon Environmental Pty Ltd - VIC | **Order No.:** | | **Received:** | Apr 2, 2022 11:15 AM |
| **Address:** | 3/224 Glen Osmond Road<br>Fullarton<br>SA 5063 | **Report #:** | 876688 | **Due:** | Apr 11, 2022 |
| | | **Phone:** | 08 8338 1009 | **Priority:** | 5 Day |
| | | **Fax:** | | **Contact Name:** | Agon Lab Reports (Spoil Project) |
| **Project Name:** | 20220402044310-Eurofin-21 | | | | |
| **Project ID:** | JC0927 | | | | |

**Eurofins Analytical Services Manager : Michael Cassidy**

| **Sample Detail** | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **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 | SX_OB_20220401_20_10_SS_Triplicate_EUF | Apr 01, 2022 | 8:10PM | Soil | M22-Ap0002509 | | X | X | X |
| 2 | SX_OB_20220401_20_02_SS_Primary_EUF | Apr 01, 2022 | 8:02PM | Soil | M22-Ap0002510 | | X | X | X |
| 3 | SX_OB_20220402_00_08_SS_Primary_EUF | Apr 02, 2022 | 12:08AM | Soil | M22-Ap0002511 | | X | X | X |

| | | | | | |
|---|---|---|---|---|---|
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| | | **Phone:** | 08 8338 1009 | **Priority:** | 5 Day |
| | | **Fax:** | | **Contact Name:** | Agon Lab Reports (Spoil Project) |
| **Project Name:** | 20220402044310-Eurofin-21 | | | | |
| **Project ID:** | JC0927 | | | | |

**Eurofins Analytical Services Manager : Michael Cassidy**

| Sample Detail | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| 4 | SX_OB_20220402_03_59_SS_Primary_EUF | Apr 02, 2022 | 3:59AM | Soil | M22-Ap0002512 | | X | X | X |
| 5 | SX_OB_20220402_04_00_SS_Duplicate_EUF | Apr 02, 2022 | 4:00AM | Soil | M22-Ap0002513 | | X | X | X |
| 6 | SX_OB_20220402_04_13_SR_Rinsate_EUF | Apr 02, 2022 | 4:13AM | Water | M22-Ap0002514 | | | X | |
| 7 | SX_OB_20220402_04_14_S | Apr 02, 2022 | 4:14AM | Water | M22-Ap0002515 | | | X | |

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| | | | | |
|---|---|---|---|---|
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| | | **Phone:** | 08 8338 1009 | **Priority:** 5 Day |
| | | **Fax:** | | **Contact Name:** Agon Lab Reports (Spoil Project) |
| **Project Name:** | 20220402044310-Eurofin-21 | | | |
| **Project ID:** | JC0927 | | | |

**Eurofins Analytical Services Manager : Michael Cassidy**

| Sample Detail | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| | B_Blank_EUF | | | | | | | | |
| 8 | SX_OB_20220401_20_10_SS_Triplicate_EUF | Apr 01, 2022 | 8:10PM | AUS Leachate - pH 5.0 | M22-Ap0002516 | X | | X | |
| 9 | SX_OB_20220401_20_02_SS_Primary_EUF | Apr 01, 2022 | 8:02PM | AUS Leachate - pH 5.0 | M22-Ap0002517 | X | | X | |
| 10 | SX_OB_20220402_00_08_SS_Primary_EUF | Apr 02, 2022 | 12:08AM | AUS Leachate - pH 5.0 | M22-Ap0002518 | X | | X | |
| 11 | SX_OB_20220 | Apr 02, 2022 | 3:59AM | AUS Leachate | M22- | X | | X | |

eurofins Environment Testing

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SA 5063

**Project Name:** 20220402044310-Eurofin-21
**Project ID:** JC0927

**Order No.:**
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**Phone:** 08 8338 1009
**Fax:**

**Received:** Apr 2, 2022 11:15 AM
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**Priority:** 5 Day
**Contact Name:** Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

| **Sample Detail** | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| | 402_03_59_SS_Primary_EUF | | | - pH 5.0 | Ap0002519 | | | | |
| 12 | SX_OB_20220402_04_00_SS_Duplicate_EUF | Apr 02, 2022 | 4:00AM | AUS Leachate - pH 5.0 | M22-Ap0002520 | X | | X | |
| 13 | SX_OB_20220401_20_10_SS_Triplicate_EUF | Apr 01, 2022 | 8:10PM | AUS Leachate - Reagent Water | M22-Ap0002521 | X | | X | |
| 14 | SX_OB_20220401_20_02_SS_Primary_EU | Apr 01, 2022 | 8:02PM | AUS Leachate - Reagent Water | M22-Ap0002522 | X | | X | |

| | | | | | |
|---|---|---|---|---|---|
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| **Project ID:** | JC0927 | | | | |

**Eurofins Analytical Services Manager : Michael Cassidy**

| **Sample Detail** | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| | F | | | | | | | | |
| 15 | SX_OB_20220402_00_08_SS_Primary_EUF | Apr 02, 2022 | 12:08AM | AUS Leachate - Reagent Water | M22-Ap0002523 | X | | X | |
| 16 | SX_OB_20220402_03_59_SS_Primary_EUF | Apr 02, 2022 | 3:59AM | AUS Leachate - Reagent Water | M22-Ap0002524 | X | | X | |
| 17 | SX_OB_20220402_04_00_SS_Duplicate_EUF | Apr 02, 2022 | 4:00AM | AUS Leachate - Reagent Water | M22-Ap0002525 | X | | X | |
| **Test Counts** | | | | | | 10 | 5 | 17 | 5 |

## 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.

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Environment Testing

**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** | | | | | | | |
| **Volatile Organics** | | | | | | | |
| Hexachlorobutadiene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| **Method Blank** | | | | | | | |
| **Volatile Organics** | | | | | | | |
| 1.1-Dichloroethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.2.4-Trichlorobenzene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.1-Dichloroethene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.1.1-Trichloroethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.1.1.2-Tetrachloroethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.1.2-Trichloroethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.1.2.2-Tetrachloroethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.2-Dibromoethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.2-Dichlorobenzene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.2-Dichloroethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.2-Dichloropropane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.2.3-Trichloropropane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.2.4-Trimethylbenzene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.3-Dichlorobenzene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.3-Dichloropropane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.3.5-Trimethylbenzene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 1.4-Dichlorobenzene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 2-Butanone (MEK) | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 2-Propanone (Acetone) | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 4-Chlorotoluene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 4-Methyl-2-pentanone (MIBK) | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Allyl chloride | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Benzene | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Bromobenzene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Bromochloromethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Bromodichloromethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Bromoform | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Bromomethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Carbon disulfide | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Carbon Tetrachloride | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Chlorobenzene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Chloroethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Chloroform | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Chloromethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| cis-1.2-Dichloroethene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| cis-1.3-Dichloropropene | mg/kg | < 0.5 | | | 0.5 | Pass | |

| Test | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|
| Dibromochloromethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Dibromomethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Dichlorodifluoromethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Ethylbenzene | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Iodomethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Isopropyl benzene (Cumene) | mg/kg | < 0.5 | | | 0.5 | Pass | |
| m&p-Xylenes | mg/kg | < 0.2 | | | 0.2 | Pass | |
| Methylene Chloride | mg/kg | < 0.5 | | | 0.5 | Pass | |
| o-Xylene | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Styrene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Tetrachloroethene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Toluene | mg/kg | < 0.1 | | | 0.1 | Pass | |
| trans-1.2-Dichloroethene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| trans-1.3-Dichloropropene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Trichloroethene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Trichlorofluoromethane | mg/kg | < 0.5 | | | 0.5 | Pass | |
| Vinyl chloride | mg/kg | < 0.5 | | | 0.5 | 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 | |
| **Method Blank** | | | | | | | |
| **Organochlorine Pesticides** | | | | | | | |
| Chlordanes - Total | mg/kg | < 0.1 | | | 0.1 | Pass | |
| 4.4'-DDD | mg/kg | < 0.05 | | | 0.05 | Pass | |
| 4.4'-DDE | mg/kg | < 0.05 | | | 0.05 | Pass | |
| 4.4'-DDT | mg/kg | < 0.05 | | | 0.05 | Pass | |
| a-HCH | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Aldrin | mg/kg | < 0.05 | | | 0.05 | Pass | |
| b-HCH | mg/kg | < 0.05 | | | 0.05 | Pass | |
| d-HCH | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Dieldrin | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Endosulfan I | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Endosulfan II | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Endosulfan sulphate | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Endrin | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Endrin aldehyde | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Endrin ketone | mg/kg | < 0.05 | | | 0.05 | Pass | |
| g-HCH (Lindane) | mg/kg | < 0.05 | | | 0.05 | Pass | |

| Test | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|
| Heptachlor | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Heptachlor epoxide | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Hexachlorobenzene | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Methoxychlor | mg/kg | < 0.05 | | | 0.05 | Pass | |
| Toxaphene | mg/kg | < 0.5 | | | 0.5 | Pass | |
| **Method Blank** | | | | | | | |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor-1016 | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Aroclor-1221 | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Aroclor-1232 | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Aroclor-1242 | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Aroclor-1248 | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Aroclor-1254 | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Aroclor-1260 | mg/kg | < 0.1 | | | 0.1 | Pass | |
| Total PCB* | mg/kg | < 0.1 | | | 0.1 | Pass | |
| **Method Blank** | | | | | | | |
| **Phenols (Halogenated)** | | | | | | | |
| 2-Chlorophenol | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 2.4-Dichlorophenol | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 2.4.5-Trichlorophenol | mg/kg | < 1 | | | 1 | Pass | |
| 2.4.6-Trichlorophenol | mg/kg | < 1 | | | 1 | Pass | |
| 2.6-Dichlorophenol | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 4-Chloro-3-methylphenol | mg/kg | < 1 | | | 1 | Pass | |
| Pentachlorophenol | mg/kg | < 1 | | | 1 | Pass | |
| Tetrachlorophenols - Total | mg/kg | < 10 | | | 10 | Pass | |
| **Method Blank** | | | | | | | |
| **Phenols (non-Halogenated)** | | | | | | | |
| 2-Cyclohexyl-4.6-dinitrophenol | mg/kg | < 20 | | | 20 | Pass | |
| 2-Methyl-4.6-dinitrophenol | mg/kg | < 5 | | | 5 | Pass | |
| 2-Nitrophenol | mg/kg | < 1 | | | 1.0 | Pass | |
| 2.4-Dimethylphenol | mg/kg | < 0.5 | | | 0.5 | Pass | |
| 2.4-Dinitrophenol | mg/kg | < 5 | | | 5 | Pass | |
| 2-Methylphenol (o-Cresol) | mg/kg | < 0.2 | | | 0.2 | Pass | |
| 3&4-Methylphenol (m&p-Cresol) | mg/kg | < 0.4 | | | 0.4 | Pass | |
| 4-Nitrophenol | mg/kg | < 5 | | | 5 | Pass | |
| Dinoseb | mg/kg | < 20 | | | 20 | Pass | |
| Phenol | mg/kg | < 0.5 | | | 0.5 | Pass | |
| **Method Blank** | | | | | | | |
| Chromium (hexavalent) | mg/kg | < 1 | | | 1 | Pass | |
| Cyanide (total) | mg/kg | < 5 | | | 5 | Pass | |
| Fluoride (Total) | mg/kg | < 100 | | | 100 | 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 | |
| Molybdenum | mg/kg | < 5 | | | 5 | Pass | |
| Nickel | mg/kg | < 5 | | | 5 | Pass | |
| Selenium | mg/kg | < 2 | | | 2 | Pass | |
| Silver | mg/kg | < 2 | | | 2 | Pass | |
| Tin | mg/kg | < 10 | | | 10 | Pass | |

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Environment Testing

| Test | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|
| Zinc | mg/kg | < 5 | | | 5 | Pass | |
| **Method Blank** | | | | | | | |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | | | | |
| Perfluorobutanoic acid (PFBA) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluoropentanoic acid (PFPeA) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluorohexanoic acid (PFHxA) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluoroheptanoic acid (PFHpA) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluorooctanoic acid (PFOA) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluorononanoic acid (PFNA) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluorodecanoic acid (PFDA) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluoroundecanoic acid (PFUnDA) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluorododecanoic acid (PFDoDA) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluorotridecanoic acid (PFTrDA) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluorotetradecanoic acid (PFTeDA) | ug/kg | < 5 | | | 5 | Pass | |
| **Method Blank** | | | | | | | |
| **Perfluoroalkyl sulfonamido substances** | | | | | | | |
| Perfluorooctane sulfonamide (FOSA) | ug/kg | < 5 | | | 5 | Pass | |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) | ug/kg | < 5 | | | 5 | Pass | |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) | ug/kg | < 5 | | | 5 | Pass | |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) | ug/kg | < 5 | | | 5 | Pass | |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) | ug/kg | < 5 | | | 5 | Pass | |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) | ug/kg | < 10 | | | 10 | Pass | |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) | ug/kg | < 10 | | | 10 | Pass | |
| **Method Blank** | | | | | | | |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluorononanesulfonic acid (PFNS) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluoropropanesulfonic acid (PFPrS) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluoropentanesulfonic acid (PFPeS) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluorohexanesulfonic acid (PFHxS) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluoroheptanesulfonic acid (PFHpS) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluorooctanesulfonic acid (PFOS) | ug/kg | < 5 | | | 5 | Pass | |
| Perfluorodecanesulfonic acid (PFDS) | ug/kg | < 5 | | | 5 | Pass | |
| **Method Blank** | | | | | | | |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) | ug/kg | < 5 | | | 5 | Pass | |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) | ug/kg | < 10 | | | 10 | Pass | |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) | ug/kg | < 5 | | | 5 | Pass | |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) | ug/kg | < 5 | | | 5 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Total Recoverable Hydrocarbons** | | | | | | | |
| TRH C6-C9 | % | 83 | | | 70-130 | Pass | |
| TRH C10-C14 | % | 115 | | | 70-130 | Pass | |
| Naphthalene | % | 88 | | | 70-130 | Pass | |
| TRH C6-C10 | % | 84 | | | 70-130 | Pass | |
| TRH >C10-C16 | % | 119 | | | 70-130 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Volatile Organics** | | | | | | | |
| 1.1-Dichloroethene | % | 79 | | | 70-130 | Pass | |
| 1.1.1-Trichloroethane | % | 85 | | | 70-130 | Pass | |
| 1.2-Dichlorobenzene | % | 100 | | | 70-130 | Pass | |
| 1.2-Dichloroethane | % | 81 | | | 70-130 | Pass | |
| Benzene | % | 82 | | | 70-130 | Pass | |
| Ethylbenzene | % | 93 | | | 70-130 | Pass | |

| Test | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|
| m&p-Xylenes | % | 89 | | | 70-130 | Pass | |
| Toluene | % | 89 | | | 70-130 | Pass | |
| Trichloroethene | % | 82 | | | 70-130 | Pass | |
| Xylenes - Total* | % | 91 | | | 70-130 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | | |
| Acenaphthene | % | 86 | | | 70-130 | Pass | |
| Acenaphthylene | % | 100 | | | 70-130 | Pass | |
| Anthracene | % | 89 | | | 70-130 | Pass | |
| Benz(a)anthracene | % | 89 | | | 70-130 | Pass | |
| Benzo(a)pyrene | % | 80 | | | 70-130 | Pass | |
| Benzo(b&j)fluoranthene | % | 81 | | | 70-130 | Pass | |
| Benzo(g.h.i)perylene | % | 74 | | | 70-130 | Pass | |
| Benzo(k)fluoranthene | % | 80 | | | 70-130 | Pass | |
| Chrysene | % | 100 | | | 70-130 | Pass | |
| Dibenz(a.h)anthracene | % | 80 | | | 70-130 | Pass | |
| Fluoranthene | % | 77 | | | 70-130 | Pass | |
| Fluorene | % | 93 | | | 70-130 | Pass | |
| Indeno(1.2.3-cd)pyrene | % | 84 | | | 70-130 | Pass | |
| Naphthalene | % | 84 | | | 70-130 | Pass | |
| Phenanthrene | % | 79 | | | 70-130 | Pass | |
| Pyrene | % | 72 | | | 70-130 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Organochlorine Pesticides** | | | | | | | |
| Chlordanes - Total | % | 107 | | | 70-130 | Pass | |
| 4.4'-DDD | % | 96 | | | 70-130 | Pass | |
| 4.4'-DDE | % | 106 | | | 70-130 | Pass | |
| 4.4'-DDT | % | 93 | | | 70-130 | Pass | |
| a-HCH | % | 98 | | | 70-130 | Pass | |
| Aldrin | % | 91 | | | 70-130 | Pass | |
| b-HCH | % | 87 | | | 70-130 | Pass | |
| d-HCH | % | 87 | | | 70-130 | Pass | |
| Dieldrin | % | 101 | | | 70-130 | Pass | |
| Endosulfan I | % | 109 | | | 70-130 | Pass | |
| Endosulfan II | % | 93 | | | 70-130 | Pass | |
| Endosulfan sulphate | % | 94 | | | 70-130 | Pass | |
| Endrin | % | 87 | | | 70-130 | Pass | |
| Endrin aldehyde | % | 99 | | | 70-130 | Pass | |
| Endrin ketone | % | 108 | | | 70-130 | Pass | |
| g-HCH (Lindane) | % | 105 | | | 70-130 | Pass | |
| Heptachlor | % | 90 | | | 70-130 | Pass | |
| Heptachlor epoxide | % | 97 | | | 70-130 | Pass | |
| Hexachlorobenzene | % | 101 | | | 70-130 | Pass | |
| Methoxychlor | % | 96 | | | 70-130 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor-1260 | % | 99 | | | 70-130 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Phenols (Halogenated)** | | | | | | | |
| 2-Chlorophenol | % | 84 | | | 25-140 | Pass | |
| 2.4-Dichlorophenol | % | 93 | | | 25-140 | Pass | |
| 2.4.5-Trichlorophenol | % | 54 | | | 25-140 | Pass | |
| 2.4.6-Trichlorophenol | % | 66 | | | 25-140 | Pass | |
| 2.6-Dichlorophenol | % | 74 | | | 25-140 | Pass | |

| Test | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|
| 4-Chloro-3-methylphenol | % | 79 | | | 25-140 | Pass | |
| Pentachlorophenol | % | 72 | | | 25-140 | Pass | |
| Tetrachlorophenols - Total | % | 44 | | | 25-140 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Phenols (non-Halogenated)** | | | | | | | |
| 2-Cyclohexyl-4.6-dinitrophenol | % | 56 | | | 25-140 | Pass | |
| 2-Methyl-4.6-dinitrophenol | % | 63 | | | 25-140 | Pass | |
| 2-Nitrophenol | % | 103 | | | 25-140 | Pass | |
| 2.4-Dimethylphenol | % | 76 | | | 25-140 | Pass | |
| 2.4-Dinitrophenol | % | 46 | | | 25-140 | Pass | |
| 2-Methylphenol (o-Cresol) | % | 65 | | | 25-140 | Pass | |
| 3&4-Methylphenol (m&p-Cresol) | % | 54 | | | 25-140 | Pass | |
| 4-Nitrophenol | % | 53 | | | 25-140 | Pass | |
| Dinoseb | % | 77 | | | 25-140 | Pass | |
| Phenol | % | 72 | | | 25-140 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| Chromium (hexavalent) | % | 86 | | | 70-130 | Pass | |
| Cyanide (total) | % | 98 | | | 70-130 | Pass | |
| Fluoride (Total) | % | 86 | | | 70-130 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Heavy Metals** | | | | | | | |
| Arsenic | % | 107 | | | 80-120 | Pass | |
| Cadmium | % | 106 | | | 80-120 | Pass | |
| Chromium | % | 112 | | | 80-120 | Pass | |
| Copper | % | 109 | | | 80-120 | Pass | |
| Lead | % | 113 | | | 80-120 | Pass | |
| Mercury | % | 105 | | | 80-120 | Pass | |
| Molybdenum | % | 108 | | | 80-120 | Pass | |
| Nickel | % | 105 | | | 80-120 | Pass | |
| Selenium | % | 107 | | | 80-120 | Pass | |
| Silver | % | 113 | | | 80-120 | Pass | |
| Tin | % | 107 | | | 80-120 | Pass | |
| Zinc | % | 108 | | | 80-120 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | | | | |
| Perfluorobutanoic acid (PFBA) | % | 79 | | | 50-150 | Pass | |
| Perfluoropentanoic acid (PFPeA) | % | 143 | | | 50-150 | Pass | |
| Perfluorohexanoic acid (PFHxA) | % | 86 | | | 50-150 | Pass | |
| Perfluoroheptanoic acid (PFHpA) | % | 76 | | | 50-150 | Pass | |
| Perfluorooctanoic acid (PFOA) | % | 95 | | | 50-150 | Pass | |
| Perfluorononanoic acid (PFNA) | % | 81 | | | 50-150 | Pass | |
| Perfluorodecanoic acid (PFDA) | % | 74 | | | 50-150 | Pass | |
| Perfluoroundecanoic acid (PFUnDA) | % | 67 | | | 50-150 | Pass | |
| Perfluorododecanoic acid (PFDoDA) | % | 65 | | | 50-150 | Pass | |
| Perfluorotridecanoic acid (PFTrDA) | % | 141 | | | 50-150 | Pass | |
| Perfluorotetradecanoic acid (PFTeDA) | % | 117 | | | 50-150 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Perfluoroalkyl sulfonamido substances** | | | | | | | |
| Perfluorooctane sulfonamide (FOSA) | % | 102 | | | 50-150 | Pass | |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) | % | 98 | | | 50-150 | Pass | |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) | % | 99 | | | 50-150 | Pass | |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) | % | 69 | | | 50-150 | Pass | |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) | % | 92 | | | 50-150 | Pass | |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) | % | 80 | | | 50-150 | Pass | |

| Test | | | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|---|---|
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) | | | % | 88 | | | 50-150 | Pass | |
| **LCS - % Recovery** | | | | | | | | | |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | | % | 100 | | | 50-150 | Pass | |
| Perfluorononanesulfonic acid (PFNS) | | | % | 117 | | | 50-150 | Pass | |
| Perfluoropropanesulfonic acid (PFPrS) | | | % | 132 | | | 50-150 | Pass | |
| Perfluoropentanesulfonic acid (PFPeS) | | | % | 93 | | | 50-150 | Pass | |
| Perfluorohexanesulfonic acid (PFHxS) | | | % | 85 | | | 50-150 | Pass | |
| Perfluoroheptanesulfonic acid (PFHpS) | | | % | 85 | | | 50-150 | Pass | |
| Perfluorooctanesulfonic acid (PFOS) | | | % | 99 | | | 50-150 | Pass | |
| Perfluorodecanesulfonic acid (PFDS) | | | % | 130 | | | 50-150 | Pass | |
| **LCS - % Recovery** | | | | | | | | | |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | | | | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) | | | % | 129 | | | 50-150 | Pass | |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) | | | % | 96 | | | 50-150 | Pass | |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) | | | % | 124 | | | 50-150 | Pass | |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) | | | % | 118 | | | 50-150 | Pass | |
| **Test** | **Lab Sample ID** | **QA Source** | **Units** | **Result 1** | | | **Acceptance Limits** | **Pass Limits** | **Qualifying Code** |
| **Spike - % Recovery** | | | | | | | | | |
| **Total Recoverable Hydrocarbons** | | | | Result 1 | | | | | |
| TRH C10-C14 | M22-Ap0005026 | NCP | % | 102 | | | 70-130 | Pass | |
| TRH >C10-C16 | M22-Ap0005026 | NCP | % | 106 | | | 70-130 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Polycyclic Aromatic Hydrocarbons** | | | | Result 1 | | | | | |
| Acenaphthene | M22-Ap0002190 | NCP | % | 96 | | | 70-130 | Pass | |
| Acenaphthylene | M22-Ap0002190 | NCP | % | 112 | | | 70-130 | Pass | |
| Anthracene | M22-Ap0002190 | NCP | % | 104 | | | 70-130 | Pass | |
| Benz(a)anthracene | M22-Ap0002190 | NCP | % | 83 | | | 70-130 | Pass | |
| Benzo(a)pyrene | M22-Ap0002190 | NCP | % | 78 | | | 70-130 | Pass | |
| Benzo(b&j)fluoranthene | M22-Ap0002190 | NCP | % | 93 | | | 70-130 | Pass | |
| Benzo(g.h.i)perylene | M22-Ap0002190 | NCP | % | 73 | | | 70-130 | Pass | |
| Benzo(k)fluoranthene | M22-Ap0002190 | NCP | % | 96 | | | 70-130 | Pass | |
| Chrysene | M22-Ap0002190 | NCP | % | 99 | | | 70-130 | Pass | |
| Dibenz(a.h)anthracene | M22-Ap0002190 | NCP | % | 82 | | | 70-130 | Pass | |
| Fluoranthene | M22-Ap0002190 | NCP | % | 81 | | | 70-130 | Pass | |
| Fluorene | M22-Ap0002190 | NCP | % | 104 | | | 70-130 | Pass | |
| Indeno(1.2.3-cd)pyrene | M22-Ap0002190 | NCP | % | 87 | | | 70-130 | Pass | |
| Naphthalene | M22-Ap0002190 | NCP | % | 97 | | | 70-130 | Pass | |
| Phenanthrene | M22-Ap0002190 | NCP | % | 80 | | | 70-130 | Pass | |
| Pyrene | M22-Ap0002190 | NCP | % | 82 | | | 70-130 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Organochlorine Pesticides** | | | | Result 1 | | | | | |
| 4.4'-DDD | M22-Ma67340 | NCP | % | 126 | | | 70-130 | Pass | |
| 4.4'-DDE | M22-Ma67340 | NCP | % | 118 | | | 70-130 | Pass | |
| 4.4'-DDT | M22-Ma67340 | NCP | % | 97 | | | 70-130 | Pass | |
| a-HCH | M22-Ma67340 | NCP | % | 104 | | | 70-130 | Pass | |
| Aldrin | M22-Ma67340 | NCP | % | 112 | | | 70-130 | Pass | |
| b-HCH | M22-Ma67340 | NCP | % | 128 | | | 70-130 | Pass | |
| d-HCH | M22-Ma67340 | NCP | % | 77 | | | 70-130 | Pass | |
| Dieldrin | M22-Ma67340 | NCP | % | 113 | | | 70-130 | Pass | |
| Endosulfan I | M22-Ma67340 | NCP | % | 128 | | | 70-130 | Pass | |
| Endosulfan II | M22-Ma67340 | NCP | % | 121 | | | 70-130 | Pass | |
| Endosulfan sulphate | M22-Ma67340 | NCP | % | 113 | | | 70-130 | Pass | |
| Endrin | M22-Ma67340 | NCP | % | 115 | | | 70-130 | Pass | |

| Test | Lab Sample ID | QA Source | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|---|---|
| Endrin aldehyde | M22-Ma67340 | NCP | % | 125 | | | 70-130 | Pass | |
| Endrin ketone | M22-Ma67340 | NCP | % | 127 | | | 70-130 | Pass | |
| g-HCH (Lindane) | M22-Ma67340 | NCP | % | 94 | | | 70-130 | Pass | |
| Heptachlor | M22-Ma67340 | NCP | % | 112 | | | 70-130 | Pass | |
| Heptachlor epoxide | M22-Ma67340 | NCP | % | 125 | | | 70-130 | Pass | |
| Hexachlorobenzene | M22-Ma67340 | NCP | % | 112 | | | 70-130 | Pass | |
| Methoxychlor | M22-Ma67340 | NCP | % | 107 | | | 70-130 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Phenols (Halogenated)** | | | | Result 1 | | | | | |
| 2-Chlorophenol | M22-Ap0002190 | NCP | % | 102 | | | 30-130 | Pass | |
| 2.4-Dichlorophenol | M22-Ap0002190 | NCP | % | 118 | | | 30-130 | Pass | |
| 2.4.5-Trichlorophenol | M22-Ap0002190 | NCP | % | 115 | | | 30-130 | Pass | |
| 2.4.6-Trichlorophenol | M22-Ap0002190 | NCP | % | 95 | | | 30-130 | Pass | |
| 2.6-Dichlorophenol | M22-Ap0002190 | NCP | % | 75 | | | 30-130 | Pass | |
| 4-Chloro-3-methylphenol | M22-Ap0002190 | NCP | % | 75 | | | 30-130 | Pass | |
| Pentachlorophenol | M22-Ap0002190 | NCP | % | 113 | | | 30-130 | Pass | |
| Tetrachlorophenols - Total | M22-Ap0002190 | NCP | % | 65 | | | 30-130 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Phenols (non-Halogenated)** | | | | Result 1 | | | | | |
| 2-Cyclohexyl-4.6-dinitrophenol | M22-Ap0002190 | NCP | % | 97 | | | 30-130 | Pass | |
| 2-Methyl-4.6-dinitrophenol | M22-Ap0002190 | NCP | % | 89 | | | 30-130 | Pass | |
| 2-Nitrophenol | M22-Ap0002190 | NCP | % | 69 | | | 30-130 | Pass | |
| 2.4-Dimethylphenol | M22-Ap0002190 | NCP | % | 101 | | | 30-130 | Pass | |
| 2.4-Dinitrophenol | M22-Ma56085 | NCP | % | 45 | | | 30-130 | Pass | |
| 2-Methylphenol (o-Cresol) | M22-Ap0002190 | NCP | % | 60 | | | 30-130 | Pass | |
| 3&4-Methylphenol (m&p-Cresol) | M22-Ap0002190 | NCP | % | 49 | | | 30-130 | Pass | |
| 4-Nitrophenol | M22-Ap0002190 | NCP | % | 85 | | | 30-130 | Pass | |
| Dinoseb | M22-Ap0002190 | NCP | % | 119 | | | 30-130 | Pass | |
| Phenol | M22-Ap0002190 | NCP | % | 83 | | | 30-130 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| | | | | Result 1 | | | | | |
| Chromium (hexavalent) | M22-Ap0004337 | NCP | % | 97 | | | 70-130 | Pass | |
| Cyanide (total) | M22-Ap0004343 | NCP | % | 111 | | | 70-130 | Pass | |
| Fluoride (Total) | M22-Ap0002509 | CP | % | 86 | | | 70-130 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Heavy Metals** | | | | Result 1 | | | | | |
| Arsenic | M22-Ap0005884 | NCP | % | 106 | | | 75-125 | Pass | |
| Cadmium | M22-Ap0005884 | NCP | % | 84 | | | 75-125 | Pass | |
| Chromium | M22-Ap0005884 | NCP | % | 116 | | | 75-125 | Pass | |
| Copper | M22-Ap0005884 | NCP | % | 100 | | | 75-125 | Pass | |
| Lead | M22-Ap0005884 | NCP | % | 99 | | | 75-125 | Pass | |
| Mercury | M22-Ap0005884 | NCP | % | 119 | | | 75-125 | Pass | |
| Molybdenum | M22-Ap0005884 | NCP | % | 112 | | | 75-125 | Pass | |
| Nickel | M22-Ap0005884 | NCP | % | 110 | | | 75-125 | Pass | |
| Selenium | M22-Ap0005884 | NCP | % | 108 | | | 75-125 | Pass | |
| Silver | M22-Ap0005884 | NCP | % | 90 | | | 75-125 | Pass | |
| Tin | M22-Ap0005884 | NCP | % | 101 | | | 75-125 | Pass | |
| Zinc | M22-Ap0005884 | NCP | % | 107 | | | 75-125 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | Result 1 | | | | | |
| Perfluorobutanoic acid (PFBA) | M22-Ap0004343 | NCP | % | 82 | | | 50-150 | Pass | |
| Perfluoropentanoic acid (PFPeA) | M22-Ap0004343 | NCP | % | 111 | | | 50-150 | Pass | |
| Perfluorohexanoic acid (PFHxA) | M22-Ap0004343 | NCP | % | 91 | | | 50-150 | Pass | |
| Perfluoroheptanoic acid (PFHpA) | M22-Ap0004343 | NCP | % | 81 | | | 50-150 | Pass | |

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Environment Testing

| Test | Lab Sample ID | QA Source | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|---|---|
| Perfluorooctanoic acid (PFOA) | M22-Ap0004343 | NCP | % | 93 | | | 50-150 | Pass | |
| Perfluorononanoic acid (PFNA) | M22-Ap0004343 | NCP | % | 85 | | | 50-150 | Pass | |
| Perfluorodecanoic acid (PFDA) | M22-Ap0004343 | NCP | % | 79 | | | 50-150 | Pass | |
| Perfluoroundecanoic acid (PFUnDA) | M22-Ap0004343 | NCP | % | 74 | | | 50-150 | Pass | |
| Perfluorododecanoic acid (PFDoDA) | M22-Ap0004343 | NCP | % | 69 | | | 50-150 | Pass | |
| Perfluorotridecanoic acid (PFTrDA) | M22-Ap0004343 | NCP | % | 116 | | | 50-150 | Pass | |
| Perfluorotetradecanoic acid (PFTeDA) | M22-Ap0004343 | NCP | % | 118 | | | 50-150 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Perfluoroalkyl sulfonamido substances** | | | | Result 1 | | | | | |
| Perfluorooctane sulfonamide (FOSA) | M22-Ap0004343 | NCP | % | 87 | | | 50-150 | Pass | |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) | M22-Ap0004343 | NCP | % | 87 | | | 50-150 | Pass | |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) | M22-Ap0004343 | NCP | % | 113 | | | 50-150 | Pass | |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) | M22-Ap0004343 | NCP | % | 51 | | | 50-150 | Pass | |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) | M22-Ap0004343 | NCP | % | 121 | | | 50-150 | Pass | |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) | M22-Ap0004343 | NCP | % | 52 | | | 50-150 | Pass | |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) | M22-Ap0004343 | NCP | % | 83 | | | 50-150 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | Result 1 | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | M22-Ap0004343 | NCP | % | 99 | | | 50-150 | Pass | |
| Perfluorononanesulfonic acid (PFNS) | M22-Ap0004343 | NCP | % | 133 | | | 50-150 | Pass | |
| Perfluoropropanesulfonic acid (PFPrS) | M22-Ap0004343 | NCP | % | 124 | | | 50-150 | Pass | |
| Perfluoropentanesulfonic acid (PFPeS) | M22-Ap0004343 | NCP | % | 109 | | | 50-150 | Pass | |
| Perfluorohexanesulfonic acid (PFHxS) | M22-Ap0004343 | NCP | % | 87 | | | 50-150 | Pass | |
| Perfluoroheptanesulfonic acid (PFHpS) | M22-Ap0004343 | NCP | % | 85 | | | 50-150 | Pass | |
| Perfluorooctanesulfonic acid (PFOS) | M22-Ap0004343 | NCP | % | 88 | | | 50-150 | Pass | |
| Perfluorodecanesulfonic acid (PFDS) | M22-Ap0004343 | NCP | % | 120 | | | 50-150 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | Result 1 | | | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) | M22-Ap0004343 | NCP | % | 139 | | | 50-150 | Pass | |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) | M22-Ap0004343 | NCP | % | 85 | | | 50-150 | Pass | |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) | M22-Ap0004343 | NCP | % | 146 | | | 50-150 | Pass | |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) | M22-Ap0004343 | NCP | % | 140 | | | 50-150 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Total Recoverable Hydrocarbons** | | | | Result 1 | | | | | |
| TRH C6-C9 | M22-Ap0002510 | CP | % | 71 | | | 70-130 | Pass | |
| Naphthalene | M22-Ap0002510 | CP | % | 97 | | | 70-130 | Pass | |

| Test | Lab Sample ID | QA Source | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|---|---|
| TRH C6-C10 | M22-Ap0002510 | CP | % | 71 | | | 70-130 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Volatile Organics** | | | | Result 1 | | | | | |
| 1.1-Dichloroethene | M22-Ap0002510 | CP | % | 76 | | | 70-130 | Pass | |
| 1.1.1-Trichloroethane | M22-Ap0002510 | CP | % | 101 | | | 70-130 | Pass | |
| 1.2-Dichlorobenzene | M22-Ap0002510 | CP | % | 104 | | | 70-130 | Pass | |
| 1.2-Dichloroethane | M22-Ap0002510 | CP | % | 79 | | | 70-130 | Pass | |
| Benzene | M22-Ap0002510 | CP | % | 71 | | | 70-130 | Pass | |
| Ethylbenzene | M22-Ap0002510 | CP | % | 86 | | | 70-130 | Pass | |
| m&p-Xylenes | M22-Ap0002510 | CP | % | 88 | | | 70-130 | Pass | |
| o-Xylene | M22-Ap0002510 | CP | % | 92 | | | 70-130 | Pass | |
| Toluene | M22-Ap0002510 | CP | % | 81 | | | 70-130 | Pass | |
| Trichloroethene | M22-Ap0002510 | CP | % | 72 | | | 70-130 | Pass | |
| Xylenes - Total* | M22-Ap0002510 | CP | % | 89 | | | 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 | M22-Ap0002509 | CP | mg/kg | < 20 | < 20 | <1 | 30% | Pass | |
| TRH C10-C14 | M22-Ap0005025 | NCP | mg/kg | < 20 | < 20 | <1 | 30% | Pass | |
| TRH C15-C28 | M22-Ap0005025 | NCP | mg/kg | < 50 | < 50 | <1 | 30% | Pass | |
| TRH C29-C36 | M22-Ap0005025 | NCP | mg/kg | < 50 | < 50 | <1 | 30% | Pass | |
| Naphthalene | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| TRH C6-C10 | M22-Ap0002509 | CP | mg/kg | < 20 | < 20 | <1 | 30% | Pass | |
| TRH >C10-C16 | M22-Ap0005025 | NCP | mg/kg | < 50 | < 50 | <1 | 30% | Pass | |
| TRH >C16-C34 | M22-Ap0005025 | NCP | mg/kg | < 100 | < 100 | <1 | 30% | Pass | |
| TRH >C34-C40 | M22-Ap0005025 | NCP | mg/kg | < 100 | < 100 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Volatile Organics** | | | | Result 1 | Result 2 | RPD | | | |
| Hexachlorobutadiene | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Volatile Organics** | | | | Result 1 | Result 2 | RPD | | | |
| 1.1-Dichloroethane | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.2.4-Trichlorobenzene | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.1-Dichloroethene | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.1.1-Trichloroethane | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.1.1.2-Tetrachloroethane | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.1.2-Trichloroethane | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.1.2.2-Tetrachloroethane | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.2-Dibromoethane | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.2-Dichlorobenzene | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.2-Dichloroethane | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.2-Dichloropropane | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.2.3-Trichloropropane | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.2.4-Trimethylbenzene | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.3-Dichlorobenzene | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.3-Dichloropropane | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.3.5-Trimethylbenzene | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 1.4-Dichlorobenzene | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 2-Butanone (MEK) | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 2-Propanone (Acetone) | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 4-Chlorotoluene | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 4-Methyl-2-pentanone (MIBK) | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Allyl chloride | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Benzene | M22-Ap0002509 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Duplicate** | | | | | | | | | |
| **Volatile Organics** | | | | Result 1 | Result 2 | RPD | | | |
| Bromobenzene | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Bromochloromethane | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Bromodichloromethane | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Bromoform | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Bromomethane | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Carbon disulfide | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Carbon Tetrachloride | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Chlorobenzene | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Chloroethane | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Chloroform | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Chloromethane | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| cis-1.2-Dichloroethene | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| cis-1.3-Dichloropropene | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Dibromochloromethane | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Dibromomethane | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Dichlorodifluoromethane | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Ethylbenzene | M22-Ap0002509 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Iodomethane | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Isopropyl benzene (Cumene) | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| m&p-Xylenes | M22-Ap0002509 | CP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| Methylene Chloride | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| o-Xylene | M22-Ap0002509 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Styrene | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Tetrachloroethene | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Toluene | M22-Ap0002509 | CP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| trans-1.2-Dichloroethene | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| trans-1.3-Dichloropropene | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Trichloroethene | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Trichlorofluoromethane | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Vinyl chloride | M22-Ap0002509 | CP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Xylenes - Total* | M22-Ap0002509 | CP | mg/kg | < 0.3 | < 0.3 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Polycyclic Aromatic Hydrocarbons** | | | | Result 1 | Result 2 | RPD | | | |
| Acenaphthene | M22-Ap0002677 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Acenaphthylene | M22-Ap0002677 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Anthracene | M22-Ap0002677 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Benz(a)anthracene | M22-Ap0002677 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Benzo(a)pyrene | M22-Ap0002677 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Benzo(b&j)fluoranthene | M22-Ap0002677 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Benzo(g.h.i)perylene | M22-Ap0002677 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Benzo(k)fluoranthene | M22-Ap0002677 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Chrysene | M22-Ap0002677 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Dibenz(a.h)anthracene | M22-Ap0002677 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Fluoranthene | M22-Ap0002677 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Fluorene | M22-Ap0002677 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Indeno(1.2.3-cd)pyrene | M22-Ap0002677 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Naphthalene | M22-Ap0002677 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Phenanthrene | M22-Ap0002677 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| Pyrene | M22-Ap0002677 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |

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Environment Testing

| Duplicate | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Organochlorine Pesticides** | | | | Result 1 | Result 2 | RPD | | | |
| Chlordanes - Total | M22-Ap0001675 | NCP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| 4.4'-DDD | M22-Ap0001675 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| 4.4'-DDE | M22-Ap0001675 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| 4.4'-DDT | M22-Ap0001675 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| a-HCH | M22-Ap0001675 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Aldrin | M22-Ap0001675 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| b-HCH | M22-Ap0001675 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| d-HCH | M22-Ap0001675 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Dieldrin | M22-Ap0001675 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Endosulfan I | M22-Ap0001675 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Endosulfan II | M22-Ap0001675 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Endosulfan sulphate | M22-Ap0001675 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Endrin | M22-Ap0001675 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Endrin aldehyde | M22-Ap0001675 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Endrin ketone | M22-Ap0001675 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| g-HCH (Lindane) | M22-Ap0001675 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Heptachlor | M22-Ap0001675 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Heptachlor epoxide | M22-Ap0001675 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Hexachlorobenzene | M22-Ap0001675 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Methoxychlor | M22-Ap0001675 | NCP | mg/kg | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Toxaphene | M22-Ap0001675 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Polychlorinated Biphenyls** | | | | Result 1 | Result 2 | RPD | | | |
| Aroclor-1016 | M22-Ap0001675 | NCP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Aroclor-1221 | M22-Ap0001675 | NCP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Aroclor-1232 | M22-Ap0001675 | NCP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Aroclor-1242 | M22-Ap0001675 | NCP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Aroclor-1248 | M22-Ap0001675 | NCP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Aroclor-1254 | M22-Ap0001675 | NCP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Aroclor-1260 | M22-Ap0001675 | NCP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| Total PCB* | M22-Ap0001675 | NCP | mg/kg | < 0.1 | < 0.1 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Phenols (Halogenated)** | | | | Result 1 | Result 2 | RPD | | | |
| 2-Chlorophenol | M22-Ap0002677 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 2.4-Dichlorophenol | M22-Ap0002677 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 2.4.5-Trichlorophenol | M22-Ap0002677 | NCP | mg/kg | < 1 | < 1 | <1 | 30% | Pass | |
| 2.4.6-Trichlorophenol | M22-Ap0002677 | NCP | mg/kg | < 1 | < 1 | <1 | 30% | Pass | |
| 2.6-Dichlorophenol | M22-Ap0002677 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 4-Chloro-3-methylphenol | M22-Ap0002677 | NCP | mg/kg | < 1 | < 1 | <1 | 30% | Pass | |
| Pentachlorophenol | M22-Ap0002677 | NCP | mg/kg | < 1 | < 1 | <1 | 30% | Pass | |
| Tetrachlorophenols - Total | M22-Ap0002677 | NCP | mg/kg | < 10 | < 10 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Phenols (non-Halogenated)** | | | | Result 1 | Result 2 | RPD | | | |
| 2-Cyclohexyl-4.6-dinitrophenol | M22-Ap0002677 | NCP | mg/kg | < 20 | < 20 | <1 | 30% | Pass | |
| 2-Methyl-4.6-dinitrophenol | M22-Ap0002677 | NCP | mg/kg | < 5 | < 5 | <1 | 30% | Pass | |
| 2-Nitrophenol | M22-Ap0002677 | NCP | mg/kg | < 1 | < 1 | <1 | 30% | Pass | |
| 2.4-Dimethylphenol | M22-Ap0002677 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |
| 2.4-Dinitrophenol | M22-Ap0002677 | NCP | mg/kg | < 5 | < 5 | <1 | 30% | Pass | |
| 2-Methylphenol (o-Cresol) | M22-Ap0002677 | NCP | mg/kg | < 0.2 | < 0.2 | <1 | 30% | Pass | |
| 3&4-Methylphenol (m&p-Cresol) | M22-Ap0002677 | NCP | mg/kg | < 0.4 | < 0.4 | <1 | 30% | Pass | |
| 4-Nitrophenol | M22-Ap0002677 | NCP | mg/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Dinoseb | M22-Ap0002677 | NCP | mg/kg | < 20 | < 20 | <1 | 30% | Pass | |
| Phenol | M22-Ap0002677 | NCP | mg/kg | < 0.5 | < 0.5 | <1 | 30% | Pass | |

| Duplicate | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Result 1 | Result 2 | RPD | | | |
| Chromium (hexavalent) | M22-Ap0001680 | NCP | mg/kg | < 1 | < 1 | <1 | 30% | Pass | |
| Fluoride (Total) | M22-Ap0004338 | NCP | mg/kg | < 100 | < 100 | <1 | 30% | Pass | |
| pH (1:5 Aqueous extract at 25°C as rec.) | M22-Ap0002557 | NCP | pH Units | 8.0 | 8.2 | pass | 30% | Pass | |
| % Moisture | M22-Ap0002509 | CP | % | 27 | 30 | 11 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Heavy Metals** | | | | Result 1 | Result 2 | RPD | | | |
| Arsenic | M22-Ap0005884 | NCP | mg/kg | 10 | 10 | 2.0 | 30% | Pass | |
| Cadmium | M22-Ap0005884 | NCP | mg/kg | < 0.4 | < 0.4 | <1 | 30% | Pass | |
| Chromium | M22-Ap0005884 | NCP | mg/kg | 23 | 23 | <1 | 30% | Pass | |
| Copper | M22-Ap0005884 | NCP | mg/kg | 42 | 41 | 2.0 | 30% | Pass | |
| Lead | M22-Ap0005884 | NCP | mg/kg | 47 | 46 | 1.0 | 30% | Pass | |
| Mercury | M22-Ap0005884 | NCP | mg/kg | 0.1 | 0.2 | 7.0 | 30% | Pass | |
| Molybdenum | M22-Ap0005884 | NCP | mg/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Nickel | M22-Ap0005884 | NCP | mg/kg | 16 | 16 | 2.0 | 30% | Pass | |
| Selenium | M22-Ap0005884 | NCP | mg/kg | < 2 | < 2 | <1 | 30% | Pass | |
| Silver | M22-Ap0005884 | NCP | mg/kg | < 2 | < 2 | <1 | 30% | Pass | |
| Tin | M22-Ap0005884 | NCP | mg/kg | 16 | 16 | <1 | 30% | Pass | |
| Zinc | M22-Ap0005884 | NCP | mg/kg | 29 | 28 | 1.0 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | Result 1 | Result 2 | RPD | | | |
| Perfluorobutanoic acid (PFBA) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluoropentanoic acid (PFPeA) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluorohexanoic acid (PFHxA) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluoroheptanoic acid (PFHpA) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluorooctanoic acid (PFOA) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluorononanoic acid (PFNA) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluorodecanoic acid (PFDA) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluoroundecanoic acid (PFUnDA) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluorododecanoic acid (PFDoDA) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluorotridecanoic acid (PFTrDA) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluorotetradecanoic acid (PFTeDA) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Perfluoroalkyl sulfonamido substances** | | | | Result 1 | Result 2 | RPD | | | |
| Perfluorooctane sulfonamide (FOSA) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) | M22-Ap0002540 | NCP | ug/kg | < 10 | < 10 | <1 | 30% | Pass | |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) | M22-Ap0002540 | NCP | ug/kg | < 10 | < 10 | <1 | 30% | Pass | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Duplicate** | | | | | | | | | |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | Result 1 | Result 2 | RPD | | | |
| Perfluorobutanesulfonic acid (PFBS) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluorononanesulfonic acid (PFNS) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluoropropanesulfonic acid (PFPrS) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluoropentanesulfonic acid (PFPeS) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluorohexanesulfonic acid (PFHxS) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluoroheptanesulfonic acid (PFHpS) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluorooctanesulfonic acid (PFOS) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| Perfluorodecanesulfonic acid (PFDS) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | Result 1 | Result 2 | RPD | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) | M22-Ap0002540 | NCP | ug/kg | < 10 | < 10 | <1 | 30% | Pass | |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) | M22-Ap0002540 | NCP | ug/kg | < 5 | < 5 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| | | | | Result 1 | Result 2 | RPD | | | |
| Cyanide (total) | M22-Ap0002511 | CP | mg/kg | < 5 | < 5 | <1 | 30% | Pass | |

## Comments

### Sample Integrity

| | |
|---|---|
| Custody Seals Intact (if used) | N/A |
| Attempt to Chill was evident | No |
| 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 |
| N11 | Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds. |
| N15 | Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation). |

### Authorised by:

| | |
|---|---|
| Catherine Wilson | Analytical Services Manager |
| Linda Chouman | Senior Analyst (NSW) |
| Joseph Edouard | Senior Analyst (VIC) |
| Scott Beddoes | Senior Analyst (NSW) |
| Mary Makarios | Senior Analyst (NSW) |
| Edward Lee | Senior Analyst (VIC) |

**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.

**Agon Environmental Pty Ltd - VIC**
**3/224 Glen Osmond Road**
**Fullarton**
**SA 5063**

**NATA Accredited**
**Accreditation Number 1261**
**Site Number 1254**

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

| | |
|---|---|
| **Attention:** | **Agon Lab Reports (Spoil Project)** |
| **Report** | **876688-W** |
| Project name | 20220402044310-Eurofin-21 |
| Project ID | JC0927 |
| Received Date | Apr 02, 2022 |

| **Client Sample ID** | | | **SX_OB_20220402_04_13_SR_Rinsate_EUF** | **SX_OB_20220402_04_14_SB_Blank_EUF** |
|---|---|---|---|---|
| **Sample Matrix** | | | **Water** | **Water** |
| **Eurofins Sample No.** | | | **M22-Ap0002514** | **M22-Ap0002515** |
| **Date Sampled** | | | **Apr 02, 2022** | **Apr 02, 2022** |
| Test/Reference | LOR | Unit | | |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | |
| Perfluorobutanoic acid (PFBA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 |
| Perfluoropentanoic acid (PFPeA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorohexanoic acid (PFHxA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluoroheptanoic acid (PFHpA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorooctanoic acid (PFOA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorononanoic acid (PFNA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorodecanoic acid (PFDA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluoroundecanoic acid (PFUnDA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorododecanoic acid (PFDoDA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorotridecanoic acid (PFTrDA)N15 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorotetradecanoic acid (PFTeDA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| 13C4-PFBA (surr.) | 1 | % | 110 | 105 |
| 13C5-PFPeA (surr.) | 1 | % | 114 | 120 |
| 13C5-PFHxA (surr.) | 1 | % | 117 | 111 |
| 13C4-PFHpA (surr.) | 1 | % | 104 | 102 |
| 13C8-PFOA (surr.) | 1 | % | 97 | 102 |
| 13C5-PFNA (surr.) | 1 | % | 96 | 103 |
| 13C6-PFDA (surr.) | 1 | % | 93 | 104 |
| 13C2-PFUnDA (surr.) | 1 | % | 79 | 86 |
| 13C2-PFDoDA (surr.) | 1 | % | 52 | 54 |
| 13C2-PFTeDA (surr.) | 1 | % | 27 | 23 |
| **Perfluoroalkyl sulfonamido substances** | | | | |
| Perfluorooctane sulfonamide (FOSA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)N11 | 0.05 | ug/L | < 0.05 | < 0.05 |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)N11 | 0.05 | ug/L | < 0.05 | < 0.05 |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 |
| 13C8-FOSA (surr.) | 1 | % | 94 | 92 |

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Environment Testing

| Client Sample ID | | | SX_OB_20220402_04_13_SR_Rinsate_EUF | SX_OB_20220402_04_14_SB_Blank_EUF |
|---|---|---|---|---|
| Sample Matrix | | | Water | Water |
| Eurofins Sample No. | | | M22-Ap0002514 | M22-Ap0002515 |
| Date Sampled | | | Apr 02, 2022 | Apr 02, 2022 |
| Test/Reference | LOR | Unit | | |
| **Perfluoroalkyl sulfonamido substances** | | | | |
| D3-N-MeFOSA (surr.) | 1 | % | 55 | 56 |
| D5-N-EtFOSA (surr.) | 1 | % | 48 | 51 |
| D7-N-MeFOSE (surr.) | 1 | % | 99 | 106 |
| D9-N-EtFOSE (surr.) | 1 | % | 92 | 87 |
| D5-N-EtFOSAA (surr.) | 1 | % | 36 | 43 |
| D3-N-MeFOSAA (surr.) | 1 | % | 48 | 51 |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | |
| Perfluorobutanesulfonic acid (PFBS)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorononanesulfonic acid (PFNS)N15 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluoropropanesulfonic acid (PFPrS)N15 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluoropentanesulfonic acid (PFPeS)N15 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorohexanesulfonic acid (PFHxS)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluoroheptanesulfonic acid (PFHpS)N15 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorooctanesulfonic acid (PFOS)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| Perfluorodecanesulfonic acid (PFDS)N15 | 0.01 | ug/L | < 0.01 | < 0.01 |
| 13C3-PFBS (surr.) | 1 | % | 123 | 115 |
| 18O2-PFHxS (surr.) | 1 | % | 103 | 110 |
| 13C8-PFOS (surr.) | 1 | % | 88 | 94 |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)N11 | 0.05 | ug/L | < 0.05 | < 0.05 |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)N11 | 0.01 | ug/L | < 0.01 | < 0.01 |
| 13C2-4:2 FTSA (surr.) | 1 | % | 65 | 64 |
| 13C2-6:2 FTSA (surr.) | 1 | % | 88 | 93 |
| 13C2-8:2 FTSA (surr.) | 1 | % | 51 | 53 |
| 13C2-10:2 FTSA (surr.) | 1 | % | 24 | 27 |
| **PFASs Summations** | | | | |
| Sum (PFHxS + PFOS)* | 0.01 | ug/L | < 0.01 | < 0.01 |
| Sum of US EPA PFAS (PFOS + PFOA)* | 0.01 | ug/L | < 0.01 | < 0.01 |
| Sum of enHealth PFAS (PFHxS + PFOS + PFOA)* | 0.01 | ug/L | < 0.01 | < 0.01 |
| Sum of WA DWER PFAS (n=10)* | 0.05 | ug/L | < 0.05 | < 0.05 |
| Sum of PFASs (n=30)* | 0.1 | ug/L | < 0.1 | < 0.1 |

## 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 |
|---|---|---|---|
| Per- and Polyfluoroalkyl Substances (PFASs) | | | |
| Perfluoroalkyl carboxylic acids (PFCAs) | Melbourne | Apr 02, 2022 | 28 Days |
| - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) | | | |
| Perfluoroalkyl sulfonamido substances | Melbourne | Apr 02, 2022 | 28 Days |
| - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) | | | |
| Perfluoroalkyl sulfonic acids (PFSAs) | Melbourne | Apr 02, 2022 | 28 Days |
| - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) | | | |
| n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) | Melbourne | Apr 02, 2022 | 28 Days |
| - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) | | | |
| PFASs Summations | Melbourne | Apr 02, 2022 | |
| - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) | | | |

**Company Name:** Agon Environmental Pty Ltd - VIC
**Address:** 3/224 Glen Osmond Road
Fullarton
SA 5063

**Project Name:** 20220402044310-Eurofin-21
**Project ID:** JC0927

**Order No.:**
**Report #:** 876688
**Phone:** 08 8338 1009
**Fax:**

**Received:** Apr 2, 2022 11:15 AM
**Due:** Apr 11, 2022
**Priority:** 5 Day
**Contact Name:** Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

| Sample Detail | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **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 | SX_OB_20220401_20_10_SS_Triplicate_EUF | Apr 01, 2022 | 8:10PM | Soil | M22-Ap0002509 | | X | X | X |
| 2 | SX_OB_20220401_20_02_SS_Primary_EUF | Apr 01, 2022 | 8:02PM | Soil | M22-Ap0002510 | | X | X | X |
| 3 | SX_OB_20220402_00_08_SS_Primary_EUF | Apr 02, 2022 | 12:08AM | Soil | M22-Ap0002511 | | X | X | X |

| | | | | | |
|---|---|---|---|---|---|
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| | | **Phone:** | 08 8338 1009 | **Priority:** | 5 Day |
| | | **Fax:** | | **Contact Name:** | Agon Lab Reports (Spoil Project) |
| **Project Name:** | 20220402044310-Eurofin-21 | | | | |
| **Project ID:** | JC0927 | | | | |

**Eurofins Analytical Services Manager : Michael Cassidy**

| **Sample Detail** | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| 4 | SX_OB_20220402_03_59_SS_Primary_EUF | Apr 02, 2022 | 3:59AM | Soil | M22-Ap0002512 | | X | X | X |
| 5 | SX_OB_20220402_04_00_SS_Duplicate_EUF | Apr 02, 2022 | 4:00AM | Soil | M22-Ap0002513 | | X | X | X |
| 6 | SX_OB_20220402_04_13_SR_Rinsate_EUF | Apr 02, 2022 | 4:13AM | Water | M22-Ap0002514 | | | X | |
| 7 | SX_OB_20220402_04_14_S | Apr 02, 2022 | 4:14AM | Water | M22-Ap0002515 | | | X | |

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**Company Name:** Agon Environmental Pty Ltd - VIC
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SA 5063

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**Project ID:** JC0927

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**Contact Name:** Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

| Sample Detail | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| | B_Blank_EUF | | | | | | | | |
| 8 | SX_OB_20220401_20_10_SS_Triplicate_EUF | Apr 01, 2022 | 8:10PM | AUS Leachate - pH 5.0 | M22-Ap0002516 | X | | X | |
| 9 | SX_OB_20220401_20_02_SS_Primary_EUF | Apr 01, 2022 | 8:02PM | AUS Leachate - pH 5.0 | M22-Ap0002517 | X | | X | |
| 10 | SX_OB_20220402_00_08_SS_Primary_EUF | Apr 02, 2022 | 12:08AM | AUS Leachate - pH 5.0 | M22-Ap0002518 | X | | X | |
| 11 | SX_OB_20220 | Apr 02, 2022 | 3:59AM | AUS Leachate | M22- | X | | X | |

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**Eurofins Analytical Services Manager : Michael Cassidy**

| Sample Detail | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| | 402_03_59_SS_Primary_EUF | | | - pH 5.0 | Ap0002519 | | | | |
| 12 | SX_OB_20220402_04_00_SS_Duplicate_EUF | Apr 02, 2022 | 4:00AM | AUS Leachate - pH 5.0 | M22-Ap0002520 | X | | X | |
| 13 | SX_OB_20220401_20_10_SS_Triplicate_EUF | Apr 01, 2022 | 8:10PM | AUS Leachate - Reagent Water | M22-Ap0002521 | X | | X | |
| 14 | SX_OB_20220401_20_02_SS_Primary_EU | Apr 01, 2022 | 8:02PM | AUS Leachate - Reagent Water | M22-Ap0002522 | X | | X | |

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| | | | | | |
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| | Fullarton | **Phone:** | 08 8338 1009 | **Priority:** | 5 Day |
| | SA 5063 | **Fax:** | | **Contact Name:** | Agon Lab Reports (Spoil Project) |
| **Project Name:** | 20220402044310-Eurofin-21 | | | | |
| **Project ID:** | JC0927 | | | | |

**Eurofins Analytical Services Manager : Michael Cassidy**

| Sample Detail | | | | | | AUS Leaching Procedure | Moisture Set | Per- and Polyfluoroalkyl Substances (PFASs) | WRG 621 WGTP Suite |
|---|---|---|---|---|---|---|---|---|---|
| **Melbourne Laboratory - NATA # 1261 Site # 1254** | | | | | | X | X | X | X |
| **Sydney Laboratory - NATA # 1261 Site # 18217** | | | | | | | | | |
| **Brisbane Laboratory - NATA # 1261 Site # 20794** | | | | | | | | | |
| **Mayfield Laboratory - NATA # 1261 Site # 25079** | | | | | | | | | |
| **Perth Laboratory - NATA # 2377 Site # 2370** | | | | | | | | | |
| **External Laboratory** | | | | | | | | | |
| | F | | | | | | | | |
| 15 | SX_OB_20220402_00_08_SS_Primary_EUF | Apr 02, 2022 | 12:08AM | AUS Leachate - Reagent Water | M22-Ap0002523 | X | | X | |
| 16 | SX_OB_20220402_03_59_SS_Primary_EUF | Apr 02, 2022 | 3:59AM | AUS Leachate - Reagent Water | M22-Ap0002524 | X | | X | |
| 17 | SX_OB_20220402_04_00_SS_Duplicate_EUF | Apr 02, 2022 | 4:00AM | AUS Leachate - Reagent Water | M22-Ap0002525 | X | | X | |
| **Test Counts** | | | | | | 10 | 5 | 17 | 5 |

## 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** | | | | | | | |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | | | | |
| Perfluorobutanoic acid (PFBA) | ug/L | < 0.05 | | | 0.05 | Pass | |
| Perfluoropentanoic acid (PFPeA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorohexanoic acid (PFHxA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluoroheptanoic acid (PFHpA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorooctanoic acid (PFOA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorononanoic acid (PFNA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorodecanoic acid (PFDA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluoroundecanoic acid (PFUnDA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorododecanoic acid (PFDoDA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorotridecanoic acid (PFTrDA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorotetradecanoic acid (PFTeDA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| **Method Blank** | | | | | | | |
| **Perfluoroalkyl sulfonamido substances** | | | | | | | |
| Perfluorooctane sulfonamide (FOSA) | ug/L | < 0.05 | | | 0.05 | Pass | |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) | ug/L | < 0.05 | | | 0.05 | Pass | |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) | ug/L | < 0.05 | | | 0.05 | Pass | |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) | ug/L | < 0.05 | | | 0.05 | Pass | |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) | ug/L | < 0.05 | | | 0.05 | Pass | |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) | ug/L | < 0.05 | | | 0.05 | Pass | |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) | ug/L | < 0.05 | | | 0.05 | Pass | |
| **Method Blank** | | | | | | | |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorononanesulfonic acid (PFNS) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluoropropanesulfonic acid (PFPrS) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluoropentanesulfonic acid (PFPeS) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorohexanesulfonic acid (PFHxS) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluoroheptanesulfonic acid (PFHpS) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorooctanesulfonic acid (PFOS) | ug/L | < 0.01 | | | 0.01 | Pass | |
| Perfluorodecanesulfonic acid (PFDS) | ug/L | < 0.01 | | | 0.01 | Pass | |
| **Method Blank** | | | | | | | |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) | ug/L | < 0.05 | | | 0.05 | Pass | |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) | ug/L | < 0.01 | | | 0.01 | Pass | |
| **LCS - % Recovery** | | | | | | | |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | | | | |
| Perfluorobutanoic acid (PFBA) | % | 85 | | | 50-150 | Pass | |
| Perfluoropentanoic acid (PFPeA) | % | 96 | | | 50-150 | Pass | |
| Perfluorohexanoic acid (PFHxA) | % | 96 | | | 50-150 | Pass | |
| Perfluoroheptanoic acid (PFHpA) | % | 88 | | | 50-150 | Pass | |
| Perfluorooctanoic acid (PFOA) | % | 92 | | | 50-150 | Pass | |
| Perfluorononanoic acid (PFNA) | % | 84 | | | 50-150 | Pass | |
| Perfluorodecanoic acid (PFDA) | % | 94 | | | 50-150 | Pass | |
| Perfluoroundecanoic acid (PFUnDA) | % | 106 | | | 50-150 | Pass | |
| Perfluorododecanoic acid (PFDoDA) | % | 112 | | | 50-150 | Pass | |
| Perfluorotridecanoic acid (PFTrDA) | % | 138 | | | 50-150 | Pass | |
| Perfluorotetradecanoic acid (PFTeDA) | % | 86 | | | 50-150 | Pass | |

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Environment Testing

| Test | | | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|---|---|
| **LCS - % Recovery** | | | | | | | | | |
| **Perfluoroalkyl sulfonamido substances** | | | | | | | | | |
| Perfluorooctane sulfonamide (FOSA) | | | % | 102 | | | 50-150 | Pass | |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) | | | % | 124 | | | 50-150 | Pass | |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) | | | % | 123 | | | 50-150 | Pass | |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) | | | % | 93 | | | 50-150 | Pass | |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) | | | % | 105 | | | 50-150 | Pass | |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) | | | % | 79 | | | 50-150 | Pass | |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) | | | % | 99 | | | 50-150 | Pass | |
| **LCS - % Recovery** | | | | | | | | | |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | | | % | 82 | | | 50-150 | Pass | |
| Perfluorononanesulfonic acid (PFNS) | | | % | 96 | | | 50-150 | Pass | |
| Perfluoropropanesulfonic acid (PFPrS) | | | % | 90 | | | 50-150 | Pass | |
| Perfluoropentanesulfonic acid (PFPeS) | | | % | 93 | | | 50-150 | Pass | |
| Perfluorohexanesulfonic acid (PFHxS) | | | % | 95 | | | 50-150 | Pass | |
| Perfluoroheptanesulfonic acid (PFHpS) | | | % | 103 | | | 50-150 | Pass | |
| Perfluorooctanesulfonic acid (PFOS) | | | % | 93 | | | 50-150 | Pass | |
| Perfluorodecanesulfonic acid (PFDS) | | | % | 75 | | | 50-150 | Pass | |
| **LCS - % Recovery** | | | | | | | | | |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | | | | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) | | | % | 109 | | | 50-150 | Pass | |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) | | | % | 125 | | | 50-150 | Pass | |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) | | | % | 97 | | | 50-150 | Pass | |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) | | | % | 91 | | | 50-150 | Pass | |
| **Test** | **Lab Sample ID** | **QA Source** | **Units** | **Result 1** | | | **Acceptance Limits** | **Pass Limits** | **Qualifying Code** |
| **Spike - % Recovery** | | | | | | | | | |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | Result 1 | | | | | |
| Perfluorobutanoic acid (PFBA) | M22-Ma67305 | NCP | % | 112 | | | 50-150 | Pass | |
| Perfluoropentanoic acid (PFPeA) | M22-Ma67305 | NCP | % | 93 | | | 50-150 | Pass | |
| Perfluorohexanoic acid (PFHxA) | M22-Ma67305 | NCP | % | 103 | | | 50-150 | Pass | |
| Perfluoroheptanoic acid (PFHpA) | M22-Ma67305 | NCP | % | 95 | | | 50-150 | Pass | |
| Perfluorooctanoic acid (PFOA) | M22-Ma67305 | NCP | % | 101 | | | 50-150 | Pass | |
| Perfluorononanoic acid (PFNA) | M22-Ma67305 | NCP | % | 95 | | | 50-150 | Pass | |
| Perfluorodecanoic acid (PFDA) | M22-Ma67305 | NCP | % | 104 | | | 50-150 | Pass | |
| Perfluoroundecanoic acid (PFUnDA) | M22-Ma67305 | NCP | % | 107 | | | 50-150 | Pass | |
| Perfluorododecanoic acid (PFDoDA) | M22-Ma67305 | NCP | % | 119 | | | 50-150 | Pass | |
| Perfluorotetradecanoic acid (PFTeDA) | M22-Ma67305 | NCP | % | 100 | | | 50-150 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Perfluoroalkyl sulfonamido substances** | | | | Result 1 | | | | | |
| Perfluorooctane sulfonamide (FOSA) | M22-Ma67305 | NCP | % | 113 | | | 50-150 | Pass | |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) | M22-Ma67305 | NCP | % | 106 | | | 50-150 | Pass | |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) | M22-Ma67305 | NCP | % | 115 | | | 50-150 | Pass | |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) | M22-Ma67305 | NCP | % | 104 | | | 50-150 | Pass | |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) | M22-Ma67305 | NCP | % | 113 | | | 50-150 | Pass | |

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Environment Testing

| Test | Lab Sample ID | QA Source | Units | Result 1 | | | Acceptance Limits | Pass Limits | Qualifying Code |
|---|---|---|---|---|---|---|---|---|---|
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) | M22-Ma67305 | NCP | % | 92 | | | 50-150 | Pass | |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) | M22-Ma67305 | NCP | % | 101 | | | 50-150 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | Result 1 | | | | | |
| Perfluorobutanesulfonic acid (PFBS) | M22-Ma67305 | NCP | % | 92 | | | 50-150 | Pass | |
| Perfluorononanesulfonic acid (PFNS) | M22-Ma67305 | NCP | % | 103 | | | 50-150 | Pass | |
| Perfluoropropanesulfonic acid (PFPrS) | M22-Ma67305 | NCP | % | 102 | | | 50-150 | Pass | |
| Perfluoropentanesulfonic acid (PFPeS) | M22-Ma67305 | NCP | % | 105 | | | 50-150 | Pass | |
| Perfluorohexanesulfonic acid (PFHxS) | M22-Ma67305 | NCP | % | 104 | | | 50-150 | Pass | |
| Perfluoroheptanesulfonic acid (PFHpS) | M22-Ma67305 | NCP | % | 109 | | | 50-150 | Pass | |
| Perfluorooctanesulfonic acid (PFOS) | M22-Ma67305 | NCP | % | 104 | | | 50-150 | Pass | |
| Perfluorodecanesulfonic acid (PFDS) | M22-Ma67305 | NCP | % | 77 | | | 50-150 | Pass | |
| **Spike - % Recovery** | | | | | | | | | |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | Result 1 | | | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) | M22-Ma67305 | NCP | % | 119 | | | 50-150 | Pass | |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) | M22-Ma67305 | NCP | % | 138 | | | 50-150 | Pass | |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) | M22-Ma67305 | NCP | % | 115 | | | 50-150 | Pass | |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) | M22-Ma67305 | NCP | % | 100 | | | 50-150 | Pass | |
| **Test** | **Lab Sample ID** | **QA Source** | **Units** | **Result 1** | | | **Acceptance Limits** | **Pass Limits** | **Qualifying Code** |
| **Duplicate** | | | | | | | | | |
| **Perfluoroalkyl carboxylic acids (PFCAs)** | | | | Result 1 | Result 2 | RPD | | | |
| Perfluorobutanoic acid (PFBA) | M22-Ma67309 | NCP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| Perfluoropentanoic acid (PFPeA) | M22-Ma67309 | NCP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorohexanoic acid (PFHxA) | M22-Ma67309 | NCP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluoroheptanoic acid (PFHpA) | M22-Ma67309 | NCP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorooctanoic acid (PFOA) | M22-Ma67309 | NCP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorononanoic acid (PFNA) | M22-Ma67309 | NCP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorodecanoic acid (PFDA) | M22-Ma67309 | NCP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluoroundecanoic acid (PFUnDA) | M22-Ma67309 | NCP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorododecanoic acid (PFDoDA) | M22-Ma67309 | NCP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorotridecanoic acid (PFTrDA) | M22-Ma67309 | NCP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorotetradecanoic acid (PFTeDA) | M22-Ma67309 | NCP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |

Environment Testing

| Duplicate | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Perfluoroalkyl sulfonamido substances** | | | | Result 1 | Result 2 | RPD | | | |
| Perfluorooctane sulfonamide (FOSA) | M22-Ma67309 | NCP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) | M22-Ma67309 | NCP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) | M22-Ma67309 | NCP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| 2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) | M22-Ma67309 | NCP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| 2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) | M22-Ma67309 | NCP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) | M22-Ma66031 | NCP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) | M22-Ma66031 | NCP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **Perfluoroalkyl sulfonic acids (PFSAs)** | | | | Result 1 | Result 2 | RPD | | | |
| Perfluorobutanesulfonic acid (PFBS) | M22-Ma67309 | NCP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorononanesulfonic acid (PFNS) | M22-Ma67309 | NCP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluoropropanesulfonic acid (PFPrS) | M22-Ma67309 | NCP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluoropentanesulfonic acid (PFPeS) | M22-Ma67309 | NCP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorohexanesulfonic acid (PFHxS) | M22-Ma67309 | NCP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluoroheptanesulfonic acid (PFHpS) | M22-Ma67309 | NCP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorooctanesulfonic acid (PFOS) | M22-Ma67309 | NCP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| Perfluorodecanesulfonic acid (PFDS) | M22-Ma67309 | NCP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| **Duplicate** | | | | | | | | | |
| **n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)** | | | | Result 1 | Result 2 | RPD | | | |
| 1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) | M22-Ma66031 | NCP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |
| 1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) | M22-Ma67309 | NCP | ug/L | < 0.05 | < 0.05 | <1 | 30% | Pass | |
| 1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) | M22-Ma66031 | NCP | ug/L | 0.02 | 0.02 | 17 | 30% | Pass | |
| 1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) | M22-Ma66031 | NCP | ug/L | < 0.01 | < 0.01 | <1 | 30% | Pass | |

## Comments

### Sample Integrity

| | |
|---|---|
| Custody Seals Intact (if used) | N/A |
| Attempt to Chill was evident | No |
| 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 |
|---|---|
| N11 | Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds. |
| N15 | Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation). |
| Q08 | The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference. |

### Authorised by:

| | |
|---|---|
| Catherine Wilson | Analytical Services Manager |
| Joseph Edouard | Senior Analyst (VIC) |

**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.

# CHAIN OF CUSTODY DOCUMENTATION

CLIENT: Agon Evironmental
ADDRESS / OFFICE: Melbourne
PROJECT MANAGER (PM): Craig Trimbur
PROJECT ID: JC0927
SITE: 20220402044000-ALS-21 P.O. NO.:
RESULTS REQUIRED (Date): 5 days QUOTE NO.: ME-150-19 WGTP

SAMPLER: DL - Agon LR - EP Risk
MOBILE 1: +61 400 826 907 (Craig Trimbur)
MOBILE 2: +61 490 411 004 (David Lawson)
EMAIL REPORT TO: Labreports.TST@agonenviro.com.au agonenvironmental@esdat.com.au motherhublabresults1@wgtp.com.au
EMAIL INVOICE TO: (if different to report) Labreports.TST@agonenviro.com.au agonenvironmental@esdat.com.

Australian Laboratory Services Pty Ltd

FOR LABORATORY USE ONLY
COOLER SEAL (circle appropriate)
Intact: Yes No N/A
SAMPLE TEMPERATURE
CHILLED: Yes No

COMMENTS / SPECIAL HANDLING / STORAGE OR DIPOSAL:

ANALYSIS REQUIRED including SUITES (note - suite codes must be listed to attract suite prices)

Notes:

Environmental Division
Melbourne
Work Order Reference
EM2205886

Telephone : + 61-3-8549 9600

| | SAMPLE INFORMATION (note: S = Soil, W=Water) | | | | | CONTAINER INFORMATION | | ANALYSIS REQUIRED | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ALS ID | SAMPLE ID | MATRIX | DATE | Time | Type / Code | Total bottles | Spoil Sample Prep | P16 plus Cr | PFAS 28 Extended suite | ASLP PFAS - Extended Suite (Lab to determine pH) | DI Leachate PFAS - Extended Suite |
| 9 | 1 | SX_OB_20220401_20_08_SS_Primary_ALS | S | 1/04/2022 | 2008 | Bucket | 1 | x | x | x | x | x |
| 10 | 2 | SX_OB_20220401_20_09_SS_Duplicate_ALS | S | 1/04/2022 | 2009 | Bucket | 1 | x | x | x | x | x |
| | 3 | SX_OB_20220401_20_29_SB_Blank_ALS | W | 1/04/2022 | 2029 | Bottle | 1 | | | x | | |
| | 4 | SX_OB_20220401_20_28_SR_Rinsate_ALS | W | 1/04/2022 | 2028 | Bottle | 1 | | | x | | |
| 11 | 5 | SX_OB_20220402_00_00_SS_Primary_ALS | S | 2/04/2022 | 0000 | Bucket | 1 | x | x | x | x | x |
| 12 | 6 | SX_OB_20220402_04_02_SS_Triplicate_ALS | S | 2/04/2022 | 0402 | Bucket | 1 | x | x | x | x | x |
| 13 | 7 | SX_OB_20220402_04_07_SS_Primary_ALS | S | 2/04/2022 | 0407 | Bucket | 1 | x | x | x | x | x |
| 14 | 8 | SX_OB_20220401_08_08_SS_Primary_ALS | S | 1/04/2022 | 0808 | Bucket | 1 | x | x | x | x | x |

| RELINQUISHED BY: | | RECEIVED BY: | | METHOD OF SHIPMENT |
|---|---|---|---|---|
| Name: Emma. S | Date: 02/04/22 | Name: Scott | Date: 2/4/22 | Con' Note No: |
| Of: EP Risk | Time: 7:58am | Of: ALS | Time: 1051. | |
| Name: | Date: | Name: | Date: | Transport Co: |
| Of: | Time: | Of: | Time: | |

***Water Container Codes:*** P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserveed Plastic; AG = Amber Glass Unpreserved; V = VOA Vial HCl Preserved; VS = VOA Vial Sulphuric Preserved; SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass; Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bad for Acid Sulphate Soils; B = Unpreserved Bag.

# CERTIFICATE OF ANALYSIS

| | | | |
|---|---|---|---|
| **Work Order** | : **EM2205886** | Page | : 1 of 29 |
| Client | : **AGON ENVIRONMENTAL PTY LTD** | Laboratory | : Environmental Division Melbourne |
| Contact | : DAVID LAWSON | Contact | : Bronwyn Sheen |
| Address | : D1.1 63-85 TURNER STREET<br>PORT MELBOURNE 3207 | Address | : 4 Westall Rd Springvale VIC Australia 3171 |
| Telephone | : ---- | Telephone | : +6138549 9600 |
| Project | : JC0927 | Date Samples Received | : 02-Apr-2022 10:51 |
| Order number | : ---- | Date Analysis Commenced | : 05-Apr-2022 |
| C-O-C number | : 20220402044000-ALS-21 | Issue Date | : 08-Apr-2022 16:50 |
| Sampler | : DL - Agon, LR - EP Risk | | |
| Site | : 20220402044000-ALS-21 | | |
| Quote number | : EN/150/19 -WGTP -Bulk Sample Quote | | |
| No. of samples received | : 14 | | |
| No. of samples analysed | : 14 | | |

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* |
|---|---|---|
| Dilani Fernando | Laboratory Coordinator | Melbourne Inorganics, Springvale, VIC |
| Xing Lin | Senior Organic Chemist | Melbourne Inorganics, Springvale, VIC |
| Xing Lin | Senior Organic Chemist | Melbourne Organics, Springvale, VIC |

## General Comments

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

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

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

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 Contact 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.
- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP074-UT: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP074-WF: Where reported, Sum of trichlorobenzenes is the sum of the reported concentrations of 1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene, and 1,3,5-Trichlorobenzene at or above the LOR.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.
- EN60: Where leachable PFAS analysis is requested, centrifugation rather than pressure filtration is used as the default approach for removal of particulates, in line with AS 4439.3.
- EN60-DI: Where leachable PFAS analysis is requested, centrifugation rather than pressure filtration is used as the default approach for removal of particulates, in line with AS 4439.3.
- EP231X-INJ: The direct injection LCMSMS method may be used where the sample matrix is not suitable for Solid Phase Extraction (e.g. significant particulate load) or where only a single sample container is received.

## Analytical Results

| Sub-Matrix: ASLP LEACHATE (Matrix: WATER) | | | Sample ID | SX_OB_20220401_2008_SS_Primary_ALS | SX_OB_20220401_2009_SS_Duplicate_ALS | SX_OB_20220402_0000_SS_Primary_ALS | SX_OB_20220402_0402_SS_Triplicate_ALS | SX_OB_20220402_0407_SS_Primary_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 20:08 | 01-Apr-2022 20:09 | 02-Apr-2022 00:00 | 02-Apr-2022 04:02 | 02-Apr-2022 04:07 |
| Compound | CAS Number | LOR | Unit | EM2205886-001 | EM2205886-002 | EM2205886-005 | EM2205886-006 | EM2205886-007 |
| | | | | Result | Result | Result | Result | Result |
| **EP231A: Perfluoroalkyl Sulfonic Acids** | | | | | | | | |
| **Perfluorobutane sulfonic acid (PFBS)** | 375-73-5 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluoropentane sulfonic acid (PFPeS)** | 2706-91-4 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorohexane sulfonic acid (PFHxS)** | 355-46-4 | 0.01 | µg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| **Perfluoroheptane sulfonic acid (PFHpS)** | 375-92-8 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorooctane sulfonic acid (PFOS)** | 1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| **Perfluorodecane sulfonic acid (PFDS)** | 335-77-3 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP231B: Perfluoroalkyl Carboxylic Acids** | | | | | | | | |
| **Perfluorobutanoic acid (PFBA)** | 375-22-4 | 0.1 | µg/L | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| **Perfluoropentanoic acid (PFPeA)** | 2706-90-3 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorohexanoic acid (PFHxA)** | 307-24-4 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluoroheptanoic acid (PFHpA)** | 375-85-9 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorooctanoic acid (PFOA)** | 335-67-1 | 0.01 | µg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| **Perfluorononanoic acid (PFNA)** | 375-95-1 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorodecanoic acid (PFDA)** | 335-76-2 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluoroundecanoic acid (PFUnDA)** | 2058-94-8 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorododecanoic acid (PFDoDA)** | 307-55-1 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorotridecanoic acid (PFTrDA)** | 72629-94-8 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorotetradecanoic acid (PFTeDA)** | 376-06-7 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| **EP231C: Perfluoroalkyl Sulfonamides** | | | | | | | | |
| **Perfluorooctane sulfonamide (FOSA)** | 754-91-6 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **N-Methyl perfluorooctane sulfonamide (MeFOSA)** | 31506-32-8 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |

## Analytical Results

| Sub-Matrix: ASLP LEACHATE (Matrix: WATER) | | | Sample ID | SX_OB_20220401_2008_SS_Primary_ALS | SX_OB_20220401_2009_SS_Duplicate_ALS | SX_OB_20220402_0000_SS_Primary_ALS | SX_OB_20220402_0402_SS_Triplicate_ALS | SX_OB_20220402_0407_SS_Primary_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 20:08 | 01-Apr-2022 20:09 | 02-Apr-2022 00:00 | 02-Apr-2022 04:02 | 02-Apr-2022 04:07 |
| Compound | CAS Number | LOR | Unit | EM2205886-001 | EM2205886-002 | EM2205886-005 | EM2205886-006 | EM2205886-007 |
| | | | | Result | Result | Result | Result | Result |
| **EP231C: Perfluoroalkyl Sulfonamides - Continued** | | | | | | | | |
| N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids** | | | | | | | | |
| 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| **EP231P: PFAS Sums** | | | | | | | | |
| Sum of PFAS | ---- | 0.01 | µg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Sum of PFHxS and PFOS | 355-46-4/1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Sum of PFAS (WA DER List) | ---- | 0.01 | µg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| **EP231S: PFAS Surrogate** | | | | | | | | |
| 13C4-PFOS | ---- | 0.02 | % | **95.9** | **94.9** | **101** | **93.2** | **97.3** |
| 13C8-PFOA | ---- | 0.02 | % | **102** | **100** | **102** | **100** | **110** |

## Analytical Results

| Sub-Matrix: ASLP LEACHATE (Matrix: WATER) | | | Sample ID | SX_OB_20220401_08_08_SS_Primary_ALS | ---- | ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 08:08 | ---- | ---- | ---- | ---- |
| Compound | CAS Number | LOR | Unit | EM2205886-008 | -------- | -------- | -------- | -------- |
| | | | | Result | ---- | ---- | ---- | ---- |
| **EP231A: Perfluoroalkyl Sulfonic Acids** | | | | | | | | |
| Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |
| Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |
| Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| **EP231B: Perfluoroalkyl Carboxylic Acids** | | | | | | | | |
| Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.1 | µg/L | <0.1 | ---- | ---- | ---- | ---- |
| Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |
| Perfluorononanoic acid (PFNA) | 375-95-1 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.05 | µg/L | <0.05 | ---- | ---- | ---- | ---- |
| **EP231C: Perfluoroalkyl Sulfonamides** | | | | | | | | |
| Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.05 | µg/L | <0.05 | ---- | ---- | ---- | ---- |
| N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.05 | µg/L | <0.05 | ---- | ---- | ---- | ---- |

## Analytical Results

| Sub-Matrix: ASLP LEACHATE (Matrix: WATER) | | | Sample ID | SX_OB_20220401_08_08_SS_Primary_ALS | ---- | ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 08:08 | ---- | ---- | ---- | ---- |
| Compound | CAS Number | LOR | Unit | EM2205886-008 | -------- | -------- | -------- | -------- |
| | | | | Result | ---- | ---- | ---- | ---- |
| **EP231C: Perfluoroalkyl Sulfonamides - Continued** | | | | | | | | |
| N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.05 | µg/L | <0.05 | ---- | ---- | ---- | ---- |
| N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.05 | µg/L | <0.05 | ---- | ---- | ---- | ---- |
| N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids** | | | | | | | | |
| 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.05 | µg/L | <0.05 | ---- | ---- | ---- | ---- |
| 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.05 | µg/L | <0.05 | ---- | ---- | ---- | ---- |
| 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.05 | µg/L | <0.05 | ---- | ---- | ---- | ---- |
| 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.05 | µg/L | <0.05 | ---- | ---- | ---- | ---- |
| **EP231P: PFAS Sums** | | | | | | | | |
| Sum of PFAS | ---- | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |
| Sum of PFHxS and PFOS | 355-46-4/1763-23-1 | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |
| Sum of PFAS (WA DER List) | ---- | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |
| **EP231S: PFAS Surrogate** | | | | | | | | |
| 13C4-PFOS | ---- | 0.02 | % | **97.2** | ---- | ---- | ---- | ---- |
| 13C8-PFOA | ---- | 0.02 | % | **105** | ---- | ---- | ---- | ---- |

## Analytical Results

| Sub-Matrix: DI WATER LEACHATE (Matrix: WATER) | | | Sample ID | SX_OB_20220401_20_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS | SX_OB_20220402_00_00_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS | SX_OB_20220402_04_07_SS_Primary_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 20:08 | 01-Apr-2022 20:09 | 02-Apr-2022 00:00 | 02-Apr-2022 04:02 | 02-Apr-2022 04:07 |
| Compound | CAS Number | LOR | Unit | EM2205886-009 | EM2205886-010 | EM2205886-011 | EM2205886-012 | EM2205886-013 |
| | | | | Result | Result | Result | Result | Result |
| **EP231A: Perfluoroalkyl Sulfonic Acids** | | | | | | | | |
| **Perfluorobutane sulfonic acid (PFBS)** | 375-73-5 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluoropentane sulfonic acid (PFPeS)** | 2706-91-4 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorohexane sulfonic acid (PFHxS)** | 355-46-4 | 0.01 | µg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| **Perfluoroheptane sulfonic acid (PFHpS)** | 375-92-8 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorooctane sulfonic acid (PFOS)** | 1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| **Perfluorodecane sulfonic acid (PFDS)** | 335-77-3 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP231B: Perfluoroalkyl Carboxylic Acids** | | | | | | | | |
| **Perfluorobutanoic acid (PFBA)** | 375-22-4 | 0.1 | µg/L | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| **Perfluoropentanoic acid (PFPeA)** | 2706-90-3 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorohexanoic acid (PFHxA)** | 307-24-4 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluoroheptanoic acid (PFHpA)** | 375-85-9 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorooctanoic acid (PFOA)** | 335-67-1 | 0.01 | µg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| **Perfluorononanoic acid (PFNA)** | 375-95-1 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorodecanoic acid (PFDA)** | 335-76-2 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluoroundecanoic acid (PFUnDA)** | 2058-94-8 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorododecanoic acid (PFDoDA)** | 307-55-1 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorotridecanoic acid (PFTrDA)** | 72629-94-8 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorotetradecanoic acid (PFTeDA)** | 376-06-7 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| **EP231C: Perfluoroalkyl Sulfonamides** | | | | | | | | |
| **Perfluorooctane sulfonamide (FOSA)** | 754-91-6 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| **N-Methyl perfluorooctane sulfonamide (MeFOSA)** | 31506-32-8 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |

## Analytical Results

| Sub-Matrix: DI WATER LEACHATE (Matrix: WATER) | | | Sample ID | SX_OB_20220401_20_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS | SX_OB_20220402_00_00_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS | SX_OB_20220402_04_07_SS_Primary_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 20:08 | 01-Apr-2022 20:09 | 02-Apr-2022 00:00 | 02-Apr-2022 04:02 | 02-Apr-2022 04:07 |
| Compound | CAS Number | LOR | Unit | EM2205886-009 | EM2205886-010 | EM2205886-011 | EM2205886-012 | EM2205886-013 |
| | | | | Result | Result | Result | Result | Result |
| **EP231C: Perfluoroalkyl Sulfonamides - Continued** | | | | | | | | |
| N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids** | | | | | | | | |
| 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| **EP231P: PFAS Sums** | | | | | | | | |
| Sum of PFAS | ---- | 0.10 | µg/L | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| Sum of PFHxS and PFOS | 355-46-4/1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Sum of PFAS (WA DER List) | ---- | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| **EP231S: PFAS Surrogate** | | | | | | | | |
| 13C4-PFOS | ---- | 0.02 | % | 96.4 | 93.8 | 95.1 | 94.1 | 94.2 |
| 13C8-PFOA | ---- | 0.02 | % | 97.1 | 99.7 | 99.0 | 96.5 | 100 |

## Analytical Results

| Sub-Matrix: DI WATER LEACHATE (Matrix: WATER) | | | Sample ID | SX_OB_20220401_08_08_SS_Primary_ALS | ---- | ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 08:08 | ---- | ---- | ---- | ---- |
| Compound | CAS Number | LOR | Unit | EM2205886-014 | -------- | -------- | -------- | -------- |
| | | | | Result | ---- | ---- | ---- | ---- |
| **EP231A: Perfluoroalkyl Sulfonic Acids** | | | | | | | | |
| Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |
| Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |
| Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| **EP231B: Perfluoroalkyl Carboxylic Acids** | | | | | | | | |
| Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.1 | µg/L | <0.1 | ---- | ---- | ---- | ---- |
| Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |
| Perfluorononanoic acid (PFNA) | 375-95-1 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.02 | µg/L | <0.02 | ---- | ---- | ---- | ---- |
| Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.05 | µg/L | <0.05 | ---- | ---- | ---- | ---- |
| **EP231C: Perfluoroalkyl Sulfonamides** | | | | | | | | |
| Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.05 | µg/L | <0.05 | ---- | ---- | ---- | ---- |
| N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.05 | µg/L | <0.05 | ---- | ---- | ---- | ---- |
| N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.05 | µg/L | <0.05 | ---- | ---- | ---- | ---- |

## Analytical Results

| Sub-Matrix: DI WATER LEACHATE (Matrix: WATER) | | | Sample ID | SX_OB_20220401_08_08_SS_Primary_ALS | ---- | ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 08:08 | ---- | ---- | ---- | ---- |
| Compound | CAS Number | LOR | Unit | EM2205886-014 | -------- | -------- | -------- | -------- |
| | | | | Result | ---- | ---- | ---- | ---- |
| **EP231C: Perfluoroalkyl Sulfonamides - Continued** | | | | | | | | |
| N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.05 | µg/L | <0.05 | ---- | ---- | ---- | ---- |
| N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.05 | µg/L | <0.05 | ---- | ---- | ---- | ---- |
| N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.05 | µg/L | <0.05 | ---- | ---- | ---- | ---- |
| N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.05 | µg/L | <0.05 | ---- | ---- | ---- | ---- |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids** | | | | | | | | |
| 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.05 | µg/L | <0.05 | ---- | ---- | ---- | ---- |
| 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.05 | µg/L | <0.05 | ---- | ---- | ---- | ---- |
| 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.05 | µg/L | <0.05 | ---- | ---- | ---- | ---- |
| 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.05 | µg/L | <0.05 | ---- | ---- | ---- | ---- |
| **EP231P: PFAS Sums** | | | | | | | | |
| Sum of PFAS | ---- | 0.10 | µg/L | <0.10 | ---- | ---- | ---- | ---- |
| Sum of PFHxS and PFOS | 355-46-4/1763-23-1 | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |
| Sum of PFAS (WA DER List) | ---- | 0.05 | µg/L | <0.05 | ---- | ---- | ---- | ---- |
| **EP231S: PFAS Surrogate** | | | | | | | | |
| 13C4-PFOS | ---- | 0.02 | % | **96.3** | ---- | ---- | ---- | ---- |
| 13C8-PFOA | ---- | 0.02 | % | **99.3** | ---- | ---- | ---- | ---- |

## Analytical Results

Sub-Matrix: SOIL
(Matrix: SOIL)

| Compound | CAS Number | LOR | Unit | SX_OB_20220401_2008_SS_Primary_ALS | SX_OB_20220401_2009_SS_Duplicate_ALS | SX_OB_20220402_0000_SS_Primary_ALS | SX_OB_20220402_0402_SS_Triplicate_ALS | SX_OB_20220402_0407_SS_Primary_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 20:08 | 01-Apr-2022 20:09 | 02-Apr-2022 00:00 | 02-Apr-2022 04:02 | 02-Apr-2022 04:07 |
| | | | | EM2205886-001 | EM2205886-002 | EM2205886-005 | EM2205886-006 | EM2205886-007 |
| | | | | Result | Result | Result | Result | Result |
| **EA001: pH in soil using 0.01M CaCl extract** | | | | | | | | |
| pH (CaCl2) | ---- | 0.1 | pH Unit | 7.7 | 7.6 | 7.8 | 7.7 | 7.7 |
| **EA055: Moisture Content (Dried @ 105-110°C)** | | | | | | | | |
| Moisture Content | ---- | 1.0 | % | 28.4 | 26.6 | 30.3 | 29.0 | 30.8 |
| **EG005(ED093)T: Total Metals by ICP-AES** | | | | | | | | |
| Arsenic | 7440-38-2 | 5 | mg/kg | 29 | 28 | 22 | 19 | 24 |
| Cadmium | 7440-43-9 | 1 | mg/kg | <1 | 1 | <1 | <1 | <1 |
| Chromium | 7440-47-3 | 5 | mg/kg | 100 | 88 | 71 | 94 | 81 |
| Copper | 7440-50-8 | 5 | mg/kg | 56 | 56 | 47 | 53 | 50 |
| Lead | 7439-92-1 | 5 | mg/kg | <5 | <5 | <5 | <5 | <5 |
| Molybdenum | 7439-98-7 | 5 | mg/kg | <5 | <5 | <5 | <5 | <5 |
| Nickel | 7440-02-0 | 5 | mg/kg | 174 | 169 | 169 | 162 | 152 |
| Selenium | 7782-49-2 | 5 | mg/kg | <5 | <5 | <5 | <5 | <5 |
| Silver | 7440-22-4 | 2 | mg/kg | <2 | <2 | <2 | <2 | <2 |
| Tin | 7440-31-5 | 10 | mg/kg | <10 | <10 | <10 | <10 | <10 |
| Zinc | 7440-66-6 | 5 | mg/kg | 88 | 78 | 68 | 70 | 71 |
| **EG035T: Total Recoverable Mercury by FIMS** | | | | | | | | |
| Mercury | 7439-97-6 | 0.1 | mg/kg | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| **EG048: Hexavalent Chromium (Alkaline Digest)** | | | | | | | | |
| Hexavalent Chromium | 18540-29-9 | 1.0 | mg/kg | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| **EK026SF: Total CN by Segmented Flow Analyser** | | | | | | | | |
| Total Cyanide | 57-12-5 | 5 | mg/kg | <5 | <5 | <5 | <5 | <5 |
| **EK040T: Fluoride Total** | | | | | | | | |
| Fluoride | 16984-48-8 | 100 | mg/kg | 190 | 200 | 280 | 210 | 190 |
| **EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)** | | | | | | | | |
| Initial pH | ---- | 0.1 | pH Unit | 9.3 | 9.4 | 9.6 | 9.5 | 9.3 |
| After HCl pH | ---- | 0.1 | pH Unit | 1.3 | 1.9 | 1.3 | 1.3 | 1.2 |
| Extraction Fluid pH | ---- | 0.1 | pH Unit | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Final pH | ---- | 0.1 | pH Unit | 4.9 | 4.9 | 4.9 | 5.0 | 4.9 |
| **EP066: Polychlorinated Biphenyls (PCB)** | | | | | | | | |
| Total Polychlorinated biphenyls | ---- | 0.1 | mg/kg | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| **EP074A: Monocyclic Aromatic Hydrocarbons** | | | | | | | | |
| Benzene | 71-43-2 | 0.2 | mg/kg | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |

## Analytical Results

| Sub-Matrix: SOIL (Matrix: SOIL) | | | Sample ID | SX_OB_20220401_2008_SS_Primary_ALS | SX_OB_20220401_2009_SS_Duplicate_ALS | SX_OB_20220402_0000_SS_Primary_ALS | SX_OB_20220402_0402_SS_Triplicate_ALS | SX_OB_20220402_0407_SS_Primary_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 20:08 | 01-Apr-2022 20:09 | 02-Apr-2022 00:00 | 02-Apr-2022 04:02 | 02-Apr-2022 04:07 |
| Compound | CAS Number | LOR | Unit | EM2205886-001 | EM2205886-002 | EM2205886-005 | EM2205886-006 | EM2205886-007 |
| | | | | Result | Result | Result | Result | Result |
| **EP074A: Monocyclic Aromatic Hydrocarbons - Continued** | | | | | | | | |
| Toluene | 108-88-3 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Ethylbenzene | 100-41-4 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| meta- & para-Xylene | 108-38-3 106-42-3 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Styrene | 100-42-5 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| ortho-Xylene | 95-47-6 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| ^ Sum of monocyclic aromatic hydrocarbons | ---- | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| ^ Total Xylenes | ---- | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **EP074H: Naphthalene** | | | | | | | | |
| Naphthalene | 91-20-3 | 1 | mg/kg | <1 | <1 | <1 | <1 | <1 |
| **EP074I: Volatile Halogenated Compounds** | | | | | | | | |
| Vinyl chloride | 75-01-4 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| 1.1-Dichloroethene | 75-35-4 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| Methylene chloride | 75-09-2 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| trans-1.2-Dichloroethene | 156-60-5 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| cis-1.2-Dichloroethene | 156-59-2 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| Chloroform | 67-66-3 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| 1.1.1-Trichloroethane | 71-55-6 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| Carbon Tetrachloride | 56-23-5 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| 1.2-Dichloroethane | 107-06-2 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| Trichloroethene | 79-01-6 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| 1.1.2-Trichloroethane | 79-00-5 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| Tetrachloroethene | 127-18-4 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| 1.1.1.2-Tetrachloroethane | 630-20-6 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| 1.1.2.2-Tetrachloroethane | 79-34-5 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| Hexachlorobutadiene | 87-68-3 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| Chlorobenzene | 108-90-7 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| 1.4-Dichlorobenzene | 106-46-7 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| 1.2-Dichlorobenzene | 95-50-1 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| 1.2.4-Trichlorobenzene | 120-82-1 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| ^ Sum of volatile chlorinated hydrocarbons | ---- | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| ^ Sum of other chlorinated hydrocarbons | ---- | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| **EP075A: Phenolic Compounds (Halogenated)** | | | | | | | | |

## Analytical Results

Sub-Matrix: SOIL
(Matrix: SOIL)

| Compound | CAS Number | LOR | Unit | SX_OB_20220401_20_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS | SX_OB_20220402_00_00_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS | SX_OB_20220402_04_07_SS_Primary_ALS |
|---|---|---|---|---|---|---|---|---|
| Sampling date / time | | | | 01-Apr-2022 20:08 | 01-Apr-2022 20:09 | 02-Apr-2022 00:00 | 02-Apr-2022 04:02 | 02-Apr-2022 04:07 |
| | | | | EM2205886-001 | EM2205886-002 | EM2205886-005 | EM2205886-006 | EM2205886-007 |
| | | | | Result | Result | Result | Result | Result |
| **EP075A: Phenolic Compounds (Halogenated) - Continued** | | | | | | | | |
| 2-Chlorophenol | 95-57-8 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| 2.4-Dichlorophenol | 120-83-2 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| 2.6-Dichlorophenol | 87-65-0 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| 4-Chloro-3-methylphenol | 59-50-7 | 1.00 | mg/kg | <1.00 | <1.00 | <1.00 | <1.00 | <1.00 |
| 2.4.5-Trichlorophenol | 95-95-4 | 1.00 | mg/kg | <1.00 | <1.00 | <1.00 | <1.00 | <1.00 |
| 2.4.6-Trichlorophenol | 88-06-2 | 1.00 | mg/kg | <1.00 | <1.00 | <1.00 | <1.00 | <1.00 |
| 2.3.5.6-Tetrachlorophenol | 935-95-5 | 0.03 | mg/kg | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 |
| 2.3.4.5 & 2.3.4.6-Tetrachlorophenol | 4901-51-3/58-90-2 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Pentachlorophenol | 87-86-5 | 1.0 | mg/kg | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| ^ Sum of Phenols (halogenated) | ---- | 1.00 | mg/kg | <1.00 | <1.00 | <1.00 | <1.00 | <1.00 |
| **EP075A: Phenolic Compounds (Non-halogenated)** | | | | | | | | |
| Phenol | 108-95-2 | 1 | mg/kg | <1 | <1 | <1 | <1 | <1 |
| 2-Methylphenol | 95-48-7 | 1 | mg/kg | <1 | <1 | <1 | <1 | <1 |
| 3- & 4-Methylphenol | 1319-77-3 | 1 | mg/kg | <1 | <1 | <1 | <1 | <1 |
| 2-Nitrophenol | 88-75-5 | 1 | mg/kg | <1 | <1 | <1 | <1 | <1 |
| 2.4-Dimethylphenol | 105-67-9 | 1 | mg/kg | <1 | <1 | <1 | <1 | <1 |
| 2.4-Dinitrophenol | 51-28-5 | 5 | mg/kg | <5 | <5 | <5 | <5 | <5 |
| 4-Nitrophenol | 100-02-7 | 5 | mg/kg | <5 | <5 | <5 | <5 | <5 |
| 2-Methyl-4.6-dinitrophenol | 8071-51-0 | 5 | mg/kg | <5 | <5 | <5 | <5 | <5 |
| Dinoseb | 88-85-7 | 20 | mg/kg | <20 | <20 | <20 | <20 | <20 |
| 2-Cyclohexyl-4.6-Dinitrophenol | 131-89-5 | 20 | mg/kg | <20 | <20 | <20 | <20 | <20 |
| ^ Sum of Phenols (non-halogenated) | ---- | 20 | mg/kg | <20 | <20 | <20 | <20 | <20 |
| **EP075B: Polynuclear Aromatic Hydrocarbons** | | | | | | | | |
| Naphthalene | 91-20-3 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Acenaphthene | 83-32-9 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Acenaphthylene | 208-96-8 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Fluorene | 86-73-7 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Phenanthrene | 85-01-8 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Anthracene | 120-12-7 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Fluoranthene | 206-44-0 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Pyrene | 129-00-0 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Benz(a)anthracene | 56-55-3 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |

## Analytical Results

Sub-Matrix: SOIL
(Matrix: SOIL)

| | | | Sample ID | SX_OB_20220401_20_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS | SX_OB_20220402_00_00_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS | SX_OB_20220402_04_07_SS_Primary_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 20:08 | 01-Apr-2022 20:09 | 02-Apr-2022 00:00 | 02-Apr-2022 04:02 | 02-Apr-2022 04:07 |
| Compound | CAS Number | LOR | Unit | EM2205886-001 | EM2205886-002 | EM2205886-005 | EM2205886-006 | EM2205886-007 |
| | | | | Result | Result | Result | Result | Result |
| **EP075B: Polynuclear Aromatic Hydrocarbons - Continued** | | | | | | | | |
| Chrysene | 218-01-9 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Benzo(b+j) & Benzo(k)fluoranthene | 205-99-2 207-08-9 | 1.0 | mg/kg | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Benzo(a)pyrene | 50-32-8 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Indeno(1.2.3.cd)pyrene | 193-39-5 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Dibenz(a.h)anthracene | 53-70-3 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Benzo(g.h.i)perylene | 191-24-2 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| ^ Sum of polycyclic aromatic hydrocarbons | ---- | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| ^ Benzo(a)pyrene TEQ (zero) | ---- | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| ^ Benzo(a)pyrene TEQ (half LOR) | ---- | 0.5 | mg/kg | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** |
| ^ Benzo(a)pyrene TEQ (LOR) | ---- | 0.5 | mg/kg | **1.2** | **1.2** | **1.2** | **1.2** | **1.2** |
| **EP075I: Organochlorine Pesticides** | | | | | | | | |
| alpha-BHC | 319-84-6 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Hexachlorobenzene (HCB) | 118-74-1 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| beta-BHC | 319-85-7 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| gamma-BHC | 58-89-9 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| delta-BHC | 319-86-8 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Heptachlor | 76-44-8 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Aldrin | 309-00-2 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Heptachlor epoxide | 1024-57-3 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| cis-Chlordane | 5103-71-9 | 0.03 | mg/kg | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 |
| trans-Chlordane | 5103-74-2 | 0.03 | mg/kg | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 |
| Endosulfan 1 | 959-98-8 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| 4.4`-DDE | 72-55-9 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Dieldrin | 60-57-1 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Endrin aldehyde | 7421-93-4 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Endrin | 72-20-8 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Endosulfan 2 | 33213-65-9 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| 4.4`-DDD | 72-54-8 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Endosulfan sulfate | 1031-07-8 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| 4.4`-DDT | 50-29-3 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Methoxychlor | 72-43-5 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| ^ Sum of organochlorine pesticides | ---- | 0.10 | mg/kg | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |

## Analytical Results

| Sub-Matrix: SOIL (Matrix: SOIL) | | | Sample ID | SX_OB_20220401_2008_SS_Primary_ALS | SX_OB_20220401_2009_SS_Duplicate_ALS | SX_OB_20220402_0000_SS_Primary_ALS | SX_OB_20220402_0402_SS_Triplicate_ALS | SX_OB_20220402_0407_SS_Primary_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 20:08 | 01-Apr-2022 20:09 | 02-Apr-2022 00:00 | 02-Apr-2022 04:02 | 02-Apr-2022 04:07 |
| Compound | CAS Number | LOR | Unit | EM2205886-001 | EM2205886-002 | EM2205886-005 | EM2205886-006 | EM2205886-007 |
| | | | | Result | Result | Result | Result | Result |
| **EP075I: Organochlorine Pesticides - Continued** | | | | | | | | |
| ^ Sum of Aldrin + Dieldrin | 309-00-2/60-57-1 | 0.30 | mg/kg | <0.30 | <0.30 | <0.30 | <0.30 | <0.30 |
| ^ Sum of DDD + DDE + DDT | 72-54-8/72-55-9/50-2 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| ^ Chlordane | 57-74-9 | 0.10 | mg/kg | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| ^ Sum of other organochlorine pesticides | ---- | 0.03 | mg/kg | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 |
| **EP080/071: Total Petroleum Hydrocarbons** | | | | | | | | |
| C6 - C9 Fraction | ---- | 20 | mg/kg | <20 | <20 | <20 | <20 | <20 |
| C10 - C14 Fraction | ---- | 50 | mg/kg | <50 | <50 | <50 | <50 | <50 |
| C6 - C10 Fraction | C6_C10 | 20 | mg/kg | <20 | <20 | <20 | <20 | <20 |
| C15 - C28 Fraction | ---- | 100 | mg/kg | <100 | <100 | <100 | <100 | <100 |
| C29 - C36 Fraction | ---- | 100 | mg/kg | <100 | <100 | <100 | <100 | <100 |
| ^ C10 - C36 Fraction (sum) | ---- | 50 | mg/kg | <50 | <50 | <50 | <50 | <50 |
| **EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions** | | | | | | | | |
| >C10 - C16 Fraction | ---- | 50 | mg/kg | <50 | <50 | <50 | <50 | <50 |
| >C16 - C34 Fraction | ---- | 100 | mg/kg | <100 | <100 | <100 | <100 | <100 |
| >C34 - C40 Fraction | ---- | 100 | mg/kg | <100 | <100 | <100 | <100 | <100 |
| ^ >C10 - C40 Fraction (sum) | ---- | 50 | mg/kg | <50 | <50 | <50 | <50 | <50 |
| >C10 - C16 Fraction minus Naphthalene (F2) | ---- | 50 | mg/kg | ---- | ---- | ---- | <50 | ---- |
| >C10 - C16 Fraction minus Naphthalene (F2) | ---- | 50 | mg/kg | <50 | <50 | <50 | ---- | <50 |
| C6 - C10 Fraction minus BTEX (F1) | C6_C10-BTEX | 20 | mg/kg | <20 | <20 | <20 | <20 | <20 |
| **EP231A: Perfluoroalkyl Sulfonic Acids** | | | | | | | | |
| Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |

## Analytical Results

Sub-Matrix: SOIL
(Matrix: SOIL)

| Compound | CAS Number | LOR | Unit | SX_OB_20220401_2008_SS_Primary_ALS | SX_OB_20220401_2009_SS_Duplicate_ALS | SX_OB_20220402_0000_SS_Primary_ALS | SX_OB_20220402_0402_SS_Triplicate_ALS | SX_OB_20220402_0407_SS_Primary_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 20:08 | 01-Apr-2022 20:09 | 02-Apr-2022 00:00 | 02-Apr-2022 04:02 | 02-Apr-2022 04:07 |
| | | | | EM2205886-001 | EM2205886-002 | EM2205886-005 | EM2205886-006 | EM2205886-007 |
| | | | | Result | Result | Result | Result | Result |
| **EP231A: Perfluoroalkyl Sulfonic Acids - Continued** | | | | | | | | |
| **Perfluorodecane sulfonic acid (PFDS)** | 335-77-3 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **EP231B: Perfluoroalkyl Carboxylic Acids** | | | | | | | | |
| **Perfluorobutanoic acid (PFBA)** | 375-22-4 | 5 | µg/kg | <5 | <5 | <5 | <5 | <5 |
| **Perfluoropentanoic acid (PFPeA)** | 2706-90-3 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **Perfluorohexanoic acid (PFHxA)** | 307-24-4 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **Perfluoroheptanoic acid (PFHpA)** | 375-85-9 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **Perfluorooctanoic acid (PFOA)** | 335-67-1 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **Perfluorononanoic acid (PFNA)** | 375-95-1 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **Perfluorodecanoic acid (PFDA)** | 335-76-2 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **Perfluoroundecanoic acid (PFUnDA)** | 2058-94-8 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **Perfluorododecanoic acid (PFDoDA)** | 307-55-1 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **Perfluorotridecanoic acid (PFTrDA)** | 72629-94-8 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **Perfluorotetradecanoic acid (PFTeDA)** | 376-06-7 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **EP231C: Perfluoroalkyl Sulfonamides** | | | | | | | | |
| **Perfluorooctane sulfonamide (FOSA)** | 754-91-6 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **N-Methyl perfluorooctane sulfonamide (MeFOSA)** | 31506-32-8 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **N-Ethyl perfluorooctane sulfonamide (EtFOSA)** | 4151-50-2 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)** | 24448-09-7 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)** | 1691-99-2 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)** | 2355-31-9 | 10.0 | µg/kg | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 |

## Analytical Results

Sub-Matrix: SOIL
(Matrix: SOIL)

| Compound | CAS Number | LOR | Unit | SX_OB_20220401_20_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS | SX_OB_20220402_00_00_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS | SX_OB_20220402_04_07_SS_Primary_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 20:08 | 01-Apr-2022 20:09 | 02-Apr-2022 00:00 | 02-Apr-2022 04:02 | 02-Apr-2022 04:07 |
| | | | | EM2205886-001 | EM2205886-002 | EM2205886-005 | EM2205886-006 | EM2205886-007 |
| | | | | Result | Result | Result | Result | Result |
| **EP231C: Perfluoroalkyl Sulfonamides - Continued** | | | | | | | | |
| **N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)** | 2991-50-6 | 10.0 | µg/kg | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids** | | | | | | | | |
| **4:2 Fluorotelomer sulfonic acid (4:2 FTS)** | 757124-72-4 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **6:2 Fluorotelomer sulfonic acid (6:2 FTS)** | 27619-97-2 | 10.0 | µg/kg | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 |
| **8:2 Fluorotelomer sulfonic acid (8:2 FTS)** | 39108-34-4 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **10:2 Fluorotelomer sulfonic acid (10:2 FTS)** | 120226-60-0 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **EP231P: PFAS Sums** | | | | | | | | |
| **Sum of PFAS** | ---- | 50.0 | µg/kg | <50.0 | <50.0 | <50.0 | <50.0 | <50.0 |
| **Sum of PFHxS and PFOS** | 355-46-4/1763-23-1 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **Sum of PFAS (WA DER List)** | ---- | 10.0 | µg/kg | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 |
| **EP066S: PCB Surrogate** | | | | | | | | |
| **Decachlorobiphenyl** | 2051-24-3 | 0.1 | % | **115** | **122** | **118** | **115** | **117** |
| **EP074S: VOC Surrogates (Ultra-Trace)** | | | | | | | | |
| **1.2-Dichloroethane-D4** | 17060-07-0 | 0.1 | % | **87.7** | **89.3** | **81.9** | **90.6** | **92.3** |
| **Toluene-D8** | 2037-26-5 | 0.1 | % | **91.2** | **87.1** | **79.4** | **74.3** | **78.4** |
| **4-Bromofluorobenzene** | 460-00-4 | 0.1 | % | **111** | **77.9** | **81.2** | **76.3** | **80.4** |
| **EP075S: Acid Extractable Surrogates (Waste Classification)** | | | | | | | | |
| **Phenol-d6** | 13127-88-3 | 0.025 | % | **110** | **99.8** | **93.9** | **97.2** | **108** |
| **2-Chlorophenol-D4** | 93951-73-6 | 0.025 | % | **111** | **76.3** | **84.2** | **89.1** | **89.8** |
| **2.4.6-Tribromophenol** | 118-79-6 | 0.025 | % | **81.8** | **75.3** | **82.7** | **80.8** | **77.5** |
| **EP075T: Base/Neutral Extractable Surrogates (Waste Classification)** | | | | | | | | |
| **Nitrobenzene-D5** | 4165-60-0 | 0.025 | % | **91.5** | **101** | **77.5** | **92.1** | **96.3** |
| **1.2-Dichlorobenzene-D4** | 2199-69-1 | 0.025 | % | **71.1** | **76.8** | **69.5** | **75.4** | **76.7** |
| **2-Fluorobiphenyl** | 321-60-8 | 0.025 | % | **81.2** | **83.9** | **81.5** | **78.6** | **80.8** |
| **Anthracene-d10** | 1719-06-8 | 0.025 | % | **83.8** | **91.4** | **85.7** | **88.8** | **93.9** |
| **4-Terphenyl-d14** | 1718-51-0 | 0.025 | % | **84.2** | **82.8** | **86.2** | **87.5** | **94.5** |

## Analytical Results

| Sub-Matrix: SOIL (Matrix: SOIL) | | | Sample ID | SX_OB_20220401_2008_SS_Primary_ALS | SX_OB_20220401_2009_SS_Duplicate_ALS | SX_OB_20220402_0000_SS_Primary_ALS | SX_OB_20220402_0402_SS_Triplicate_ALS | SX_OB_20220402_0407_SS_Primary_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 20:08 | 01-Apr-2022 20:09 | 02-Apr-2022 00:00 | 02-Apr-2022 04:02 | 02-Apr-2022 04:07 |
| Compound | CAS Number | LOR | Unit | EM2205886-001 | EM2205886-002 | EM2205886-005 | EM2205886-006 | EM2205886-007 |
| | | | | Result | Result | Result | Result | Result |
| **EP231S: PFAS Surrogate** | | | | | | | | |
| **13C4-PFOS** | ---- | 0.0002 | % | **83.6** | **105** | **108** | **89.0** | **95.2** |
| **13C8-PFOA** | ---- | 0.0002 | % | **95.4** | **101** | **99.7** | **99.6** | **102** |

## Analytical Results

| Sub-Matrix: SOIL (Matrix: SOIL) | | | Sample ID | SX_OB_20220401_08_08_SS_Primary_ALS | SX_OB_20220401_20_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS | SX_OB_20220402_00_00_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 08:08 | 01-Apr-2022 20:08 | 01-Apr-2022 20:09 | 02-Apr-2022 00:00 | 02-Apr-2022 04:02 |
| Compound | CAS Number | LOR | Unit | EM2205886-008 | EM2205886-009 | EM2205886-010 | EM2205886-011 | EM2205886-012 |
| | | | | Result | Result | Result | Result | Result |
| **EA001: pH in soil using 0.01M CaCl extract** | | | | | | | | |
| pH (CaCl2) | ---- | 0.1 | pH Unit | **7.6** | ---- | ---- | ---- | ---- |
| **EA055: Moisture Content (Dried @ 105-110°C)** | | | | | | | | |
| Moisture Content | ---- | 1.0 | % | **32.2** | ---- | ---- | ---- | ---- |
| **EG005(ED093)T: Total Metals by ICP-AES** | | | | | | | | |
| Arsenic | 7440-38-2 | 5 | mg/kg | **33** | ---- | ---- | ---- | ---- |
| Cadmium | 7440-43-9 | 1 | mg/kg | **1** | ---- | ---- | ---- | ---- |
| Chromium | 7440-47-3 | 5 | mg/kg | **126** | ---- | ---- | ---- | ---- |
| Copper | 7440-50-8 | 5 | mg/kg | **72** | ---- | ---- | ---- | ---- |
| Lead | 7439-92-1 | 5 | mg/kg | <5 | ---- | ---- | ---- | ---- |
| Molybdenum | 7439-98-7 | 5 | mg/kg | <5 | ---- | ---- | ---- | ---- |
| Nickel | 7440-02-0 | 5 | mg/kg | **186** | ---- | ---- | ---- | ---- |
| Selenium | 7782-49-2 | 5 | mg/kg | <5 | ---- | ---- | ---- | ---- |
| Silver | 7440-22-4 | 2 | mg/kg | <2 | ---- | ---- | ---- | ---- |
| Tin | 7440-31-5 | 10 | mg/kg | <10 | ---- | ---- | ---- | ---- |
| Zinc | 7440-66-6 | 5 | mg/kg | **102** | ---- | ---- | ---- | ---- |
| **EG035T: Total Recoverable Mercury by FIMS** | | | | | | | | |
| Mercury | 7439-97-6 | 0.1 | mg/kg | <0.1 | ---- | ---- | ---- | ---- |
| **EG048: Hexavalent Chromium (Alkaline Digest)** | | | | | | | | |
| Hexavalent Chromium | 18540-29-9 | 1.0 | mg/kg | <1.0 | ---- | ---- | ---- | ---- |
| **EK026SF: Total CN by Segmented Flow Analyser** | | | | | | | | |
| Total Cyanide | 57-12-5 | 5 | mg/kg | <5 | ---- | ---- | ---- | ---- |
| **EK040T: Fluoride Total** | | | | | | | | |
| Fluoride | 16984-48-8 | 100 | mg/kg | **200** | ---- | ---- | ---- | ---- |
| **EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)** | | | | | | | | |
| Initial pH | ---- | 0.1 | pH Unit | **9.2** | ---- | ---- | ---- | ---- |
| After HCl pH | ---- | 0.1 | pH Unit | **1.2** | ---- | ---- | ---- | ---- |
| Extraction Fluid pH | ---- | 0.1 | pH Unit | **5.0** | ---- | ---- | ---- | ---- |
| Final pH | ---- | 0.1 | pH Unit | **5.0** | ---- | ---- | ---- | ---- |
| **EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)** | | | | | | | | |
| Final pH | ---- | 0.1 | pH Unit | ---- | **9.6** | **9.4** | **9.6** | **9.5** |
| **EP066: Polychlorinated Biphenyls (PCB)** | | | | | | | | |
| Total Polychlorinated biphenyls | ---- | 0.1 | mg/kg | <0.1 | ---- | ---- | ---- | ---- |

## Analytical Results

| Sub-Matrix: SOIL (Matrix: SOIL) | | | Sample ID | SX_OB_20220401_08_08_SS_Primary_ALS | SX_OB_20220401_20_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS | SX_OB_20220402_00_00_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 08:08 | 01-Apr-2022 20:08 | 01-Apr-2022 20:09 | 02-Apr-2022 00:00 | 02-Apr-2022 04:02 |
| Compound | CAS Number | LOR | Unit | EM2205886-008 | EM2205886-009 | EM2205886-010 | EM2205886-011 | EM2205886-012 |
| | | | | Result | Result | Result | Result | Result |
| **EP074A: Monocyclic Aromatic Hydrocarbons** | | | | | | | | |
| 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 | ---- | ---- | ---- | ---- |
| Styrene | 100-42-5 | 0.5 | mg/kg | <0.5 | ---- | ---- | ---- | ---- |
| ortho-Xylene | 95-47-6 | 0.5 | mg/kg | <0.5 | ---- | ---- | ---- | ---- |
| ^ Sum of monocyclic aromatic hydrocarbons | ---- | 0.5 | mg/kg | <0.5 | ---- | ---- | ---- | ---- |
| ^ Total Xylenes | ---- | 0.5 | mg/kg | <0.5 | ---- | ---- | ---- | ---- |
| **EP074H: Naphthalene** | | | | | | | | |
| Naphthalene | 91-20-3 | 1 | mg/kg | <1 | ---- | ---- | ---- | ---- |
| **EP074I: Volatile Halogenated Compounds** | | | | | | | | |
| Vinyl chloride | 75-01-4 | 0.50 | mg/kg | <0.50 | ---- | ---- | ---- | ---- |
| 1.1-Dichloroethene | 75-35-4 | 0.50 | mg/kg | <0.50 | ---- | ---- | ---- | ---- |
| Methylene chloride | 75-09-2 | 0.5 | mg/kg | <0.5 | ---- | ---- | ---- | ---- |
| trans-1.2-Dichloroethene | 156-60-5 | 0.50 | mg/kg | <0.50 | ---- | ---- | ---- | ---- |
| cis-1.2-Dichloroethene | 156-59-2 | 0.50 | mg/kg | <0.50 | ---- | ---- | ---- | ---- |
| Chloroform | 67-66-3 | 0.50 | mg/kg | <0.50 | ---- | ---- | ---- | ---- |
| 1.1.1-Trichloroethane | 71-55-6 | 0.50 | mg/kg | <0.50 | ---- | ---- | ---- | ---- |
| Carbon Tetrachloride | 56-23-5 | 0.50 | mg/kg | <0.50 | ---- | ---- | ---- | ---- |
| 1.2-Dichloroethane | 107-06-2 | 0.50 | mg/kg | <0.50 | ---- | ---- | ---- | ---- |
| Trichloroethene | 79-01-6 | 0.50 | mg/kg | <0.50 | ---- | ---- | ---- | ---- |
| 1.1.2-Trichloroethane | 79-00-5 | 0.50 | mg/kg | <0.50 | ---- | ---- | ---- | ---- |
| Tetrachloroethene | 127-18-4 | 0.50 | mg/kg | <0.50 | ---- | ---- | ---- | ---- |
| 1.1.1.2-Tetrachloroethane | 630-20-6 | 0.50 | mg/kg | <0.50 | ---- | ---- | ---- | ---- |
| 1.1.2.2-Tetrachloroethane | 79-34-5 | 0.50 | mg/kg | <0.50 | ---- | ---- | ---- | ---- |
| Hexachlorobutadiene | 87-68-3 | 0.50 | mg/kg | <0.50 | ---- | ---- | ---- | ---- |
| Chlorobenzene | 108-90-7 | 0.50 | mg/kg | <0.50 | ---- | ---- | ---- | ---- |
| 1.4-Dichlorobenzene | 106-46-7 | 0.50 | mg/kg | <0.50 | ---- | ---- | ---- | ---- |
| 1.2-Dichlorobenzene | 95-50-1 | 0.50 | mg/kg | <0.50 | ---- | ---- | ---- | ---- |
| 1.2.4-Trichlorobenzene | 120-82-1 | 0.50 | mg/kg | <0.50 | ---- | ---- | ---- | ---- |
| ^ Sum of volatile chlorinated hydrocarbons | ---- | 0.50 | mg/kg | <0.50 | ---- | ---- | ---- | ---- |
| ^ Sum of other chlorinated hydrocarbons | ---- | 0.50 | mg/kg | <0.50 | ---- | ---- | ---- | ---- |

## Analytical Results

| Sub-Matrix: SOIL (Matrix: SOIL) | | | Sample ID | SX_OB_20220401_08_08_SS_Primary_ALS | SX_OB_20220401_20_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS | SX_OB_20220402_00_00_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 08:08 | 01-Apr-2022 20:08 | 01-Apr-2022 20:09 | 02-Apr-2022 00:00 | 02-Apr-2022 04:02 |
| Compound | CAS Number | LOR | Unit | EM2205886-008 | EM2205886-009 | EM2205886-010 | EM2205886-011 | EM2205886-012 |
| | | | | Result | Result | Result | Result | Result |
| **EP075A: Phenolic Compounds (Halogenated)** | | | | | | | | |
| 2-Chlorophenol | 95-57-8 | 0.50 | mg/kg | <0.50 | ---- | ---- | ---- | ---- |
| 2.4-Dichlorophenol | 120-83-2 | 0.50 | mg/kg | <0.50 | ---- | ---- | ---- | ---- |
| 2.6-Dichlorophenol | 87-65-0 | 0.50 | mg/kg | <0.50 | ---- | ---- | ---- | ---- |
| 4-Chloro-3-methylphenol | 59-50-7 | 1.00 | mg/kg | <1.00 | ---- | ---- | ---- | ---- |
| 2.4.5-Trichlorophenol | 95-95-4 | 1.00 | mg/kg | <1.00 | ---- | ---- | ---- | ---- |
| 2.4.6-Trichlorophenol | 88-06-2 | 1.00 | mg/kg | <1.00 | ---- | ---- | ---- | ---- |
| 2.3.5.6-Tetrachlorophenol | 935-95-5 | 0.03 | mg/kg | <0.03 | ---- | ---- | ---- | ---- |
| 2.3.4.5 & 2.3.4.6-Tetrachlorophenol | 4901-51-3/58-90-2 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| Pentachlorophenol | 87-86-5 | 1.0 | mg/kg | <1.0 | ---- | ---- | ---- | ---- |
| ^ Sum of Phenols (halogenated) | ---- | 1.00 | mg/kg | <1.00 | ---- | ---- | ---- | ---- |
| **EP075A: Phenolic Compounds (Non-halogenated)** | | | | | | | | |
| Phenol | 108-95-2 | 1 | mg/kg | <1 | ---- | ---- | ---- | ---- |
| 2-Methylphenol | 95-48-7 | 1 | mg/kg | <1 | ---- | ---- | ---- | ---- |
| 3- & 4-Methylphenol | 1319-77-3 | 1 | mg/kg | <1 | ---- | ---- | ---- | ---- |
| 2-Nitrophenol | 88-75-5 | 1 | mg/kg | <1 | ---- | ---- | ---- | ---- |
| 2.4-Dimethylphenol | 105-67-9 | 1 | mg/kg | <1 | ---- | ---- | ---- | ---- |
| 2.4-Dinitrophenol | 51-28-5 | 5 | mg/kg | <5 | ---- | ---- | ---- | ---- |
| 4-Nitrophenol | 100-02-7 | 5 | mg/kg | <5 | ---- | ---- | ---- | ---- |
| 2-Methyl-4.6-dinitrophenol | 8071-51-0 | 5 | mg/kg | <5 | ---- | ---- | ---- | ---- |
| Dinoseb | 88-85-7 | 20 | mg/kg | <20 | ---- | ---- | ---- | ---- |
| 2-Cyclohexyl-4.6-Dinitrophenol | 131-89-5 | 20 | mg/kg | <20 | ---- | ---- | ---- | ---- |
| ^ Sum of Phenols (non-halogenated) | ---- | 20 | mg/kg | <20 | ---- | ---- | ---- | ---- |
| **EP075B: Polynuclear Aromatic Hydrocarbons** | | | | | | | | |
| Naphthalene | 91-20-3 | 0.5 | mg/kg | <0.5 | ---- | ---- | ---- | ---- |
| Acenaphthene | 83-32-9 | 0.5 | mg/kg | <0.5 | ---- | ---- | ---- | ---- |
| Acenaphthylene | 208-96-8 | 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 | ---- | ---- | ---- | ---- |
| Benz(a)anthracene | 56-55-3 | 0.5 | mg/kg | <0.5 | ---- | ---- | ---- | ---- |

## Analytical Results

| Sub-Matrix: SOIL (Matrix: SOIL) | | | Sample ID | SX_OB_20220401_08_08_SS_Primary_ALS | SX_OB_20220401_20_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS | SX_OB_20220402_00_00_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 08:08 | 01-Apr-2022 20:08 | 01-Apr-2022 20:09 | 02-Apr-2022 00:00 | 02-Apr-2022 04:02 |
| Compound | CAS Number | LOR | Unit | EM2205886-008 | EM2205886-009 | EM2205886-010 | EM2205886-011 | EM2205886-012 |
| | | | | Result | Result | Result | Result | Result |
| **EP075B: Polynuclear Aromatic Hydrocarbons - Continued** | | | | | | | | |
| Chrysene | 218-01-9 | 0.5 | mg/kg | <0.5 | ---- | ---- | ---- | ---- |
| Benzo(b+j) & Benzo(k)fluoranthene | 205-99-2 207-08-9 | 1.0 | mg/kg | <1.0 | ---- | ---- | ---- | ---- |
| 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** | ---- | ---- | ---- | ---- |
| **EP075I: Organochlorine Pesticides** | | | | | | | | |
| 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 | ---- | ---- | ---- | ---- |
| cis-Chlordane | 5103-71-9 | 0.03 | mg/kg | <0.03 | ---- | ---- | ---- | ---- |
| trans-Chlordane | 5103-74-2 | 0.03 | mg/kg | <0.03 | ---- | ---- | ---- | ---- |
| Endosulfan 1 | 959-98-8 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| 4.4`-DDE | 72-55-9 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| Dieldrin | 60-57-1 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| Endrin aldehyde | 7421-93-4 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| Endrin | 72-20-8 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| Endosulfan 2 | 33213-65-9 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| 4.4`-DDD | 72-54-8 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| Endosulfan sulfate | 1031-07-8 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| 4.4`-DDT | 50-29-3 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| Methoxychlor | 72-43-5 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| ^ Sum of organochlorine pesticides | ---- | 0.10 | mg/kg | <0.10 | ---- | ---- | ---- | ---- |

## Analytical Results

Sub-Matrix: SOIL
(Matrix: SOIL)

| | | | Sample ID | SX_OB_20220401_08_08_SS_Primary_ALS | SX_OB_20220401_20_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS | SX_OB_20220402_00_00_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 08:08 | 01-Apr-2022 20:08 | 01-Apr-2022 20:09 | 02-Apr-2022 00:00 | 02-Apr-2022 04:02 |
| Compound | CAS Number | LOR | Unit | EM2205886-008 | EM2205886-009 | EM2205886-010 | EM2205886-011 | EM2205886-012 |
| | | | | Result | Result | Result | Result | Result |
| **EP075I: Organochlorine Pesticides - Continued** | | | | | | | | |
| ^ Sum of Aldrin + Dieldrin | 309-00-2/60-57-1 | 0.30 | mg/kg | <0.30 | ---- | ---- | ---- | ---- |
| ^ Sum of DDD + DDE + DDT | 72-54-8/72-55-9/50-2 | 0.05 | mg/kg | <0.05 | ---- | ---- | ---- | ---- |
| ^ Chlordane | 57-74-9 | 0.10 | mg/kg | <0.10 | ---- | ---- | ---- | ---- |
| ^ Sum of other organochlorine pesticides | ---- | 0.03 | mg/kg | <0.03 | ---- | ---- | ---- | ---- |
| **EP080/071: Total Petroleum Hydrocarbons** | | | | | | | | |
| C6 - C9 Fraction | ---- | 20 | mg/kg | <20 | ---- | ---- | ---- | ---- |
| C10 - C14 Fraction | ---- | 50 | mg/kg | <50 | ---- | ---- | ---- | ---- |
| C6 - C10 Fraction | C6_C10 | 20 | mg/kg | <20 | ---- | ---- | ---- | ---- |
| 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** | | | | | | | | |
| >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 | ---- | ---- | ---- | ---- |
| C6 - C10 Fraction minus BTEX (F1) | C6_C10-BTEX | 20 | mg/kg | <20 | ---- | ---- | ---- | ---- |
| **EP231A: Perfluoroalkyl Sulfonic Acids** | | | | | | | | |
| Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 5.0 | µg/kg | <5.0 | ---- | ---- | ---- | ---- |
| Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 5.0 | µg/kg | <5.0 | ---- | ---- | ---- | ---- |
| Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 5.0 | µg/kg | <5.0 | ---- | ---- | ---- | ---- |
| Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 5.0 | µg/kg | <5.0 | ---- | ---- | ---- | ---- |
| Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 5.0 | µg/kg | <5.0 | ---- | ---- | ---- | ---- |
| Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 5.0 | µg/kg | <5.0 | ---- | ---- | ---- | ---- |

## Analytical Results

| Sub-Matrix: SOIL (Matrix: SOIL) | | | Sample ID | SX_OB_20220401_08_08_SS_Primary_ALS | SX_OB_20220401_20_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS | SX_OB_20220402_00_00_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 08:08 | 01-Apr-2022 20:08 | 01-Apr-2022 20:09 | 02-Apr-2022 00:00 | 02-Apr-2022 04:02 |
| Compound | CAS Number | LOR | Unit | EM2205886-008 | EM2205886-009 | EM2205886-010 | EM2205886-011 | EM2205886-012 |
| | | | | Result | Result | Result | Result | Result |
| **EP231B: Perfluoroalkyl Carboxylic Acids** | | | | | | | | |
| Perfluorobutanoic acid (PFBA) | 375-22-4 | 5 | µg/kg | <5 | ---- | ---- | ---- | ---- |
| Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 5.0 | µg/kg | <5.0 | ---- | ---- | ---- | ---- |
| Perfluorohexanoic acid (PFHxA) | 307-24-4 | 5.0 | µg/kg | <5.0 | ---- | ---- | ---- | ---- |
| Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 5.0 | µg/kg | <5.0 | ---- | ---- | ---- | ---- |
| Perfluorooctanoic acid (PFOA) | 335-67-1 | 5.0 | µg/kg | <5.0 | ---- | ---- | ---- | ---- |
| Perfluorononanoic acid (PFNA) | 375-95-1 | 5.0 | µg/kg | <5.0 | ---- | ---- | ---- | ---- |
| Perfluorodecanoic acid (PFDA) | 335-76-2 | 5.0 | µg/kg | <5.0 | ---- | ---- | ---- | ---- |
| Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 5.0 | µg/kg | <5.0 | ---- | ---- | ---- | ---- |
| Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 5.0 | µg/kg | <5.0 | ---- | ---- | ---- | ---- |
| Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 5.0 | µg/kg | <5.0 | ---- | ---- | ---- | ---- |
| Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 5.0 | µg/kg | <5.0 | ---- | ---- | ---- | ---- |
| **EP231C: Perfluoroalkyl Sulfonamides** | | | | | | | | |
| Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 5.0 | µg/kg | <5.0 | ---- | ---- | ---- | ---- |
| N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 5.0 | µg/kg | <5.0 | ---- | ---- | ---- | ---- |
| N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 5.0 | µg/kg | <5.0 | ---- | ---- | ---- | ---- |
| N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 5.0 | µg/kg | <5.0 | ---- | ---- | ---- | ---- |
| N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 5.0 | µg/kg | <5.0 | ---- | ---- | ---- | ---- |
| N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 10.0 | µg/kg | <10.0 | ---- | ---- | ---- | ---- |
| N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 10.0 | µg/kg | <10.0 | ---- | ---- | ---- | ---- |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids** | | | | | | | | |

## Analytical Results

| Sub-Matrix: SOIL (Matrix: SOIL) | | | Sample ID | SX_OB_20220401_08_08_SS_Primary_ALS | SX_OB_20220401_20_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS | SX_OB_20220402_00_00_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 08:08 | 01-Apr-2022 20:08 | 01-Apr-2022 20:09 | 02-Apr-2022 00:00 | 02-Apr-2022 04:02 |
| Compound | CAS Number | LOR | Unit | EM2205886-008 | EM2205886-009 | EM2205886-010 | EM2205886-011 | EM2205886-012 |
| | | | | Result | Result | Result | Result | Result |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued** | | | | | | | | |
| **4:2 Fluorotelomer sulfonic acid (4:2 FTS)** | 757124-72-4 | 5.0 | µg/kg | <5.0 | ---- | ---- | ---- | ---- |
| **6:2 Fluorotelomer sulfonic acid (6:2 FTS)** | 27619-97-2 | 10.0 | µg/kg | <10.0 | ---- | ---- | ---- | ---- |
| **8:2 Fluorotelomer sulfonic acid (8:2 FTS)** | 39108-34-4 | 5.0 | µg/kg | <5.0 | ---- | ---- | ---- | ---- |
| **10:2 Fluorotelomer sulfonic acid (10:2 FTS)** | 120226-60-0 | 5.0 | µg/kg | <5.0 | ---- | ---- | ---- | ---- |
| **EP231P: PFAS Sums** | | | | | | | | |
| **Sum of PFAS** | ---- | 50.0 | µg/kg | <50.0 | ---- | ---- | ---- | ---- |
| **Sum of PFHxS and PFOS** | 355-46-4/1763-23-1 | 5.0 | µg/kg | <5.0 | ---- | ---- | ---- | ---- |
| **Sum of PFAS (WA DER List)** | ---- | 10.0 | µg/kg | <10.0 | ---- | ---- | ---- | ---- |
| **EP066S: PCB Surrogate** | | | | | | | | |
| **Decachlorobiphenyl** | 2051-24-3 | 0.1 | % | **119** | ---- | ---- | ---- | ---- |
| **EP074S: VOC Surrogates (Ultra-Trace)** | | | | | | | | |
| **1.2-Dichloroethane-D4** | 17060-07-0 | 0.1 | % | **83.4** | ---- | ---- | ---- | ---- |
| **Toluene-D8** | 2037-26-5 | 0.1 | % | **97.7** | ---- | ---- | ---- | ---- |
| **4-Bromofluorobenzene** | 460-00-4 | 0.1 | % | **79.9** | ---- | ---- | ---- | ---- |
| **EP075S: Acid Extractable Surrogates (Waste Classification)** | | | | | | | | |
| **Phenol-d6** | 13127-88-3 | 0.025 | % | **105** | ---- | ---- | ---- | ---- |
| **2-Chlorophenol-D4** | 93951-73-6 | 0.025 | % | **80.4** | ---- | ---- | ---- | ---- |
| **2.4.6-Tribromophenol** | 118-79-6 | 0.025 | % | **78.7** | ---- | ---- | ---- | ---- |
| **EP075T: Base/Neutral Extractable Surrogates (Waste Classification)** | | | | | | | | |
| **Nitrobenzene-D5** | 4165-60-0 | 0.025 | % | **86.4** | ---- | ---- | ---- | ---- |
| **1.2-Dichlorobenzene-D4** | 2199-69-1 | 0.025 | % | **76.5** | ---- | ---- | ---- | ---- |
| **2-Fluorobiphenyl** | 321-60-8 | 0.025 | % | **84.4** | ---- | ---- | ---- | ---- |
| **Anthracene-d10** | 1719-06-8 | 0.025 | % | **89.4** | ---- | ---- | ---- | ---- |
| **4-Terphenyl-d14** | 1718-51-0 | 0.025 | % | **89.9** | ---- | ---- | ---- | ---- |
| **EP231S: PFAS Surrogate** | | | | | | | | |
| **13C4-PFOS** | ---- | 0.0002 | % | **101** | ---- | ---- | ---- | ---- |
| **13C8-PFOA** | ---- | 0.0002 | % | **98.0** | ---- | ---- | ---- | ---- |

## Analytical Results

| Sub-Matrix: SOIL (Matrix: SOIL) | | | Sample ID | SX_OB_20220402_04_07_SS_Primary_ALS | SX_OB_20220401_08_08_SS_Primary_ALS | ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 02-Apr-2022 04:07 | 01-Apr-2022 08:08 | ---- | ---- | ---- |
| Compound | CAS Number | LOR | Unit | EM2205886-013 | EM2205886-014 | -------- | -------- | -------- |
| | | | | Result | Result | ---- | ---- | ---- |
| **EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)** | | | | | | | | |
| Final pH | ---- | 0.1 | pH Unit | 9.5 | 9.2 | ---- | ---- | ---- |

## Analytical Results

| Sub-Matrix: WATER (Matrix: WATER) | | | Sample ID | SX_OB_20220401_20_29_SB_Blank_ALS | SX_OB_20220401_20_28_SR_Rinsate_ALS | ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 20:29 | 01-Apr-2022 20:28 | ---- | ---- | ---- |
| Compound | CAS Number | LOR | Unit | EM2205886-003 | EM2205886-004 | -------- | -------- | -------- |
| | | | | Result | Result | ---- | ---- | ---- |
| **EP231A: Perfluoroalkyl Sulfonic Acids** | | | | | | | | |
| **Perfluorobutane sulfonic acid (PFBS)** | 375-73-5 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **Perfluoropentane sulfonic acid (PFPeS)** | 2706-91-4 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **Perfluorohexane sulfonic acid (PFHxS)** | 355-46-4 | 0.01 | µg/L | <0.01 | <0.01 | ---- | ---- | ---- |
| **Perfluoroheptane sulfonic acid (PFHpS)** | 375-92-8 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **Perfluorooctane sulfonic acid (PFOS)** | 1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | ---- | ---- | ---- |
| **Perfluorodecane sulfonic acid (PFDS)** | 335-77-3 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **EP231B: Perfluoroalkyl Carboxylic Acids** | | | | | | | | |
| **Perfluorobutanoic acid (PFBA)** | 375-22-4 | 0.10 | µg/L | <0.10 | <0.10 | ---- | ---- | ---- |
| **Perfluoropentanoic acid (PFPeA)** | 2706-90-3 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **Perfluorohexanoic acid (PFHxA)** | 307-24-4 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **Perfluoroheptanoic acid (PFHpA)** | 375-85-9 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **Perfluorooctanoic acid (PFOA)** | 335-67-1 | 0.01 | µg/L | <0.01 | <0.01 | ---- | ---- | ---- |
| **Perfluorononanoic acid (PFNA)** | 375-95-1 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **Perfluorodecanoic acid (PFDA)** | 335-76-2 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **Perfluoroundecanoic acid (PFUnDA)** | 2058-94-8 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **Perfluorododecanoic acid (PFDoDA)** | 307-55-1 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **Perfluorotridecanoic acid (PFTrDA)** | 72629-94-8 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **Perfluorotetradecanoic acid (PFTeDA)** | 376-06-7 | 0.05 | µg/L | <0.05 | <0.05 | ---- | ---- | ---- |
| **EP231C: Perfluoroalkyl Sulfonamides** | | | | | | | | |
| **Perfluorooctane sulfonamide (FOSA)** | 754-91-6 | 0.05 | µg/L | <0.05 | <0.05 | ---- | ---- | ---- |
| **N-Methyl perfluorooctane sulfonamide (MeFOSA)** | 31506-32-8 | 0.05 | µg/L | <0.05 | <0.05 | ---- | ---- | ---- |
| **N-Ethyl perfluorooctane sulfonamide (EtFOSA)** | 4151-50-2 | 0.05 | µg/L | <0.05 | <0.05 | ---- | ---- | ---- |

## Analytical Results

| Sub-Matrix: WATER (Matrix: WATER) | | | Sample ID | SX_OB_20220401_20_29_SB_Blank_ALS | SX_OB_20220401_20_28_SR_Rinsate_ALS | ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 20:29 | 01-Apr-2022 20:28 | ---- | ---- | ---- |
| Compound | CAS Number | LOR | Unit | EM2205886-003 | EM2205886-004 | -------- | -------- | -------- |
| | | | | Result | Result | ---- | ---- | ---- |
| **EP231C: Perfluoroalkyl Sulfonamides - Continued** | | | | | | | | |
| N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.05 | µg/L | <0.05 | <0.05 | ---- | ---- | ---- |
| N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.05 | µg/L | <0.05 | <0.05 | ---- | ---- | ---- |
| N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.05 | µg/L | <0.05 | <0.05 | ---- | ---- | ---- |
| N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.05 | µg/L | <0.05 | <0.05 | ---- | ---- | ---- |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids** | | | | | | | | |
| 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.05 | µg/L | <0.05 | <0.05 | ---- | ---- | ---- |
| 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.05 | µg/L | <0.05 | <0.05 | ---- | ---- | ---- |
| 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.05 | µg/L | <0.05 | <0.05 | ---- | ---- | ---- |
| 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.05 | µg/L | <0.05 | <0.05 | ---- | ---- | ---- |
| **EP231P: PFAS Sums** | | | | | | | | |
| Sum of PFAS | ---- | 0.10 | µg/L | <0.10 | <0.10 | ---- | ---- | ---- |
| Sum of PFHxS and PFOS | 355-46-4/1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | ---- | ---- | ---- |
| Sum of PFAS (WA DER List) | ---- | 0.05 | µg/L | <0.05 | <0.05 | ---- | ---- | ---- |
| **EP231S: PFAS Surrogate** | | | | | | | | |
| 13C4-PFOS | ---- | 0.02 | % | **108** | **111** | ---- | ---- | ---- |
| 13C8-PFOA | ---- | 0.02 | % | **103** | **103** | ---- | ---- | ---- |

## Surrogate Control Limits

Sub-Matrix: **ASLP LEACHATE**

| Compound | CAS Number | Recovery Limits (%) Low | High |
|---|---|---|---|
| **EP231S: PFAS Surrogate** | | | |
| **13C4-PFOS** | ---- | 65 | 140 |
| **13C8-PFOA** | ---- | 71 | 133 |

Sub-Matrix: **DI WATER LEACHATE**

| Compound | CAS Number | Recovery Limits (%) Low | High |
|---|---|---|---|
| **EP231S: PFAS Surrogate** | | | |
| **13C4-PFOS** | ---- | 65 | 140 |
| **13C8-PFOA** | ---- | 71 | 133 |

Sub-Matrix: **SOIL**

| Compound | CAS Number | Recovery Limits (%) Low | High |
|---|---|---|---|
| **EP066S: PCB Surrogate** | | | |
| **Decachlorobiphenyl** | 2051-24-3 | 41 | 122 |
| **EP074S: VOC Surrogates (Ultra-Trace)** | | | |
| **1.2-Dichloroethane-D4** | 17060-07-0 | 59 | 119 |
| **Toluene-D8** | 2037-26-5 | 55 | 117 |
| **4-Bromofluorobenzene** | 460-00-4 | 59 | 123 |
| **EP075S: Acid Extractable Surrogates (Waste Classification)** | | | |
| **Phenol-d6** | 13127-88-3 | 63 | 134 |
| **2-Chlorophenol-D4** | 93951-73-6 | 60 | 125 |
| **2.4.6-Tribromophenol** | 118-79-6 | 54 | 129 |
| **EP075T: Base/Neutral Extractable Surrogates (Waste Classification)** | | | |
| **Nitrobenzene-D5** | 4165-60-0 | 63 | 131 |
| **1.2-Dichlorobenzene-D4** | 2199-69-1 | 61 | 124 |
| **2-Fluorobiphenyl** | 321-60-8 | 69 | 131 |
| **Anthracene-d10** | 1719-06-8 | 70 | 133 |
| **4-Terphenyl-d14** | 1718-51-0 | 59 | 141 |
| **EP231S: PFAS Surrogate** | | | |
| **13C4-PFOS** | ---- | 68 | 136 |
| **13C8-PFOA** | ---- | 69 | 133 |

Sub-Matrix: **WATER**

| Compound | CAS Number | Recovery Limits (%) Low | High |
|---|---|---|---|
| **EP231S: PFAS Surrogate** | | | |
| **13C4-PFOS** | ---- | 65 | 140 |
| **13C8-PFOA** | ---- | 71 | 133 |

# QUALITY CONTROL REPORT

| | | | |
|---|---|---|---|
| **Work Order** | : **EM2205886** | Page | : 1 of 30 |
| Client | : **AGON ENVIRONMENTAL PTY LTD** | Laboratory | : Environmental Division Melbourne |
| Contact | : DAVID LAWSON | Contact | : Bronwyn Sheen |
| Address | : D1.1 63-85 TURNER STREET<br>PORT MELBOURNE 3207 | Address | : 4 Westall Rd Springvale VIC Australia 3171 |
| Telephone | : ---- | Telephone | : +6138549 9600 |
| Project | : JC0927 | Date Samples Received | : 02-Apr-2022 |
| Order number | : ---- | Date Analysis Commenced | : 05-Apr-2022 |
| C-O-C number | : 20220402044000-ALS-21 | Issue Date | : 08-Apr-2022 |
| Sampler | : DL - Agon, LR - EP Risk | | |
| Site | : 20220402044000-ALS-21 | | |
| Quote number | : EN/150/19 -WGTP -Bulk Sample Quote | | |
| No. of samples received | : 14 | | |
| No. of samples analysed | : 14 | | |

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* |
|---|---|---|
| Dilani Fernando | Laboratory Coordinator | Melbourne Inorganics, Springvale, VIC |
| Xing Lin | Senior Organic Chemist | Melbourne Inorganics, Springvale, VIC |
| Xing Lin | Senior Organic Chemist | Melbourne Organics, Springvale, VIC |

## General Comments

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

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

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

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

## Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; 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: 4270115)** | | | | | | | | | |
| EM2205577-066 | Anonymous | EG005T: Chromium | 7440-47-3 | 2 | mg/kg | 204 | 176 | 14.9 | 0% - 20% |
| | | EG005T: Nickel | 7440-02-0 | 2 | mg/kg | 120 | 107 | 11.8 | 0% - 20% |
| | | EG005T: Lead | 7439-92-1 | 5 | mg/kg | 236 | 255 | 7.7 | 0% - 20% |
| | | EG005T: Zinc | 7440-66-6 | 5 | mg/kg | 120 | 104 | 14.1 | 0% - 20% |
| EM2205577-066 | Anonymous | EG005T: Cadmium | 7440-43-9 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EG005T: Molybdenum | 7439-98-7 | 2 | mg/kg | <2 | <2 | 0.0 | No Limit |
| | | EG005T: Silver | 7440-22-4 | 2 | mg/kg | <2 | <2 | 0.0 | No Limit |
| | | EG005T: Arsenic | 7440-38-2 | 5 | mg/kg | 7 | <5 | 31.5 | No Limit |
| | | EG005T: Copper | 7440-50-8 | 5 | mg/kg | 22 | 15 | 40.4 | No Limit |
| | | EG005T: Selenium | 7782-49-2 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EG005T: Tin | 7440-31-5 | 5 | mg/kg | 6 | <5 | 0.0 | No Limit |
| EM2205812-003 | Anonymous | EG005T: Cadmium | 7440-43-9 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EG005T: Chromium | 7440-47-3 | 2 | mg/kg | 13 | 12 | 0.0 | No Limit |
| | | EG005T: Molybdenum | 7439-98-7 | 2 | mg/kg | <2 | <2 | 0.0 | No Limit |
| | | EG005T: Nickel | 7440-02-0 | 2 | mg/kg | 18 | 10 | 57.7 | No Limit |
| | | EG005T: Silver | 7440-22-4 | 2 | mg/kg | <2 | <2 | 0.0 | No Limit |
| | | EG005T: Arsenic | 7440-38-2 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EG005T: Copper | 7440-50-8 | 5 | mg/kg | 8 | <5 | 43.4 | No Limit |
| | | EG005T: Lead | 7439-92-1 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EG005T: Selenium | 7782-49-2 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EG005T: Tin | 7440-31-5 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EG005T: Zinc | 7440-66-6 | 5 | mg/kg | 53 | 34 | 43.8 | 0% - 50% |
| **EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4271370)** | | | | | | | | | |
| EM2205808-028 | Anonymous | EA001: pH (CaCl2) | ---- | 0.1 | pH Unit | 5.1 | 5.0 | 0.0 | 0% - 20% |

Sub-Matrix: **SOIL**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Laboratory Duplicate (DUP) Report | | | | | |
| **EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4271370) - continued** | | | | | | | | | |
| EM2205808-042 | Anonymous | EA001: pH (CaCl2) | ---- | 0.1 | pH Unit | 7.4 | 7.7 | 3.3 | 0% - 20% |
| **EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4271371)** | | | | | | | | | |
| EM2205886-002 | SX_OB_20220401_20_09_SS_Duplicate_ALS | EA001: pH (CaCl2) | ---- | 0.1 | pH Unit | 7.6 | 7.6 | 0.0 | 0% - 20% |
| EM2205970-023 | Anonymous | EA001: pH (CaCl2) | ---- | 0.1 | pH Unit | 6.7 | 6.9 | 2.7 | 0% - 20% |
| **EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4270242)** | | | | | | | | | |
| EM2205886-001 | SX_OB_20220401_20_08_SS_Primary_ALS | EA055: Moisture Content | ---- | 0.1 | % | 28.4 | 28.9 | 1.7 | 0% - 20% |
| EM2205970-008 | Anonymous | EA055: Moisture Content | ---- | 0.1 | % | 17.5 | 17.2 | 1.5 | 0% - 20% |
| **EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 4270148)** | | | | | | | | | |
| EM2205808-036 | Anonymous | EG048G: Hexavalent Chromium | 18540-29-9 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| EM2205808-047 | Anonymous | EG048G: Hexavalent Chromium | 18540-29-9 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| **EK026SF: Total CN by Segmented Flow Analyser (QC Lot: 4271348)** | | | | | | | | | |
| EM2205808-043 | Anonymous | EK026SF: Total Cyanide | 57-12-5 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| EM2205900-038 | Anonymous | EK026SF: Total Cyanide | 57-12-5 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| **EK040T: Fluoride Total (QC Lot: 4270153)** | | | | | | | | | |
| EM2205808-043 | Anonymous | EK040T: Fluoride | 16984-48-8 | 40 | mg/kg | 410 | 430 | 5.1 | 0% - 50% |
| EM2205886-006 | SX_OB_20220402_04_02_SS_Triplicate_ALS | EK040T: Fluoride | 16984-48-8 | 40 | mg/kg | 210 | 270 | 22.4 | No Limit |
| **EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4269395)** | | | | | | | | | |
| EM2205808-043 | Anonymous | EP066-EM: Total Polychlorinated biphenyls | ---- | 0.1 | mg/kg | <0.1 | <0.1 | 0.0 | No Limit |
| EM2205886-006 | SX_OB_20220402_04_02_SS_Triplicate_ALS | EP066-EM: Total Polychlorinated biphenyls | ---- | 0.1 | mg/kg | <0.1 | <0.1 | 0.0 | No Limit |
| **EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 4265612)** | | | | | | | | | |
| EM2205886-001 | SX_OB_20220401_20_08_SS_Primary_ALS | EP074-UT: Benzene | 71-43-2 | 0.2 | mg/kg | <0.2 | <0.2 | 0.0 | No Limit |
| | | EP074-UT: Toluene | 108-88-3 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP074-UT: Ethylbenzene | 100-41-4 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP074-UT: meta- & para-Xylene | 108-38-3 106-42-3 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP074-UT: Styrene | 100-42-5 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP074-UT: ortho-Xylene | 95-47-6 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| **EP074H: Naphthalene (QC Lot: 4265612)** | | | | | | | | | |
| EM2205886-001 | SX_OB_20220401_20_08_SS_Primary_ALS | EP074-UT: Naphthalene | 91-20-3 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| **EP074I: Volatile Halogenated Compounds (QC Lot: 4265612)** | | | | | | | | | |
| EM2205886-001 | SX_OB_20220401_20_08_SS_Primary_ALS | EP074-UT: 1.1-Dichloroethene | 75-35-4 | 0.01 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: cis-1.2-Dichloroethene | 156-59-2 | 0.01 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |

Sub-Matrix: **SOIL**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Laboratory Duplicate (DUP) Report | | | | | |
| **EP074I: Volatile Halogenated Compounds (QC Lot: 4265612) - continued** | | | | | | | | | |
| EM2205886-001 | SX_OB_20220401_20_08_ SS_Primary_ALS | EP074-UT: 1.1.1-Trichloroethane | 71-55-6 | 0.01 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: Carbon Tetrachloride | 56-23-5 | 0.01 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: 1.1.1.2-Tetrachloroethane | 630-20-6 | 0.01 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: 1.2.4-Trichlorobenzene | 120-82-1 | 0.01 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: Vinyl chloride | 75-01-4 | 0.02 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: trans-1.2-Dichloroethene | 156-60-5 | 0.02 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: Chloroform | 67-66-3 | 0.02 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: 1.2-Dichloroethane | 107-06-2 | 0.02 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: Trichloroethene | 79-01-6 | 0.02 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: Tetrachloroethene | 127-18-4 | 0.02 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: 1.1.2.2-Tetrachloroethane | 79-34-5 | 0.02 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: Hexachlorobutadiene | 87-68-3 | 0.02 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: Chlorobenzene | 108-90-7 | 0.02 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: 1.4-Dichlorobenzene | 106-46-7 | 0.02 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: 1.2-Dichlorobenzene | 95-50-1 | 0.02 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: 1.1.2-Trichloroethane | 79-00-5 | 0.04 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: Methylene chloride | 75-09-2 | 0.4 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| **EP075A: Phenolic Compounds (Halogenated) (QC Lot: 4269397)** | | | | | | | | | |
| EM2205808-043 | Anonymous | EP075-EM: 2-Chlorophenol | 95-57-8 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: 2.4-Dichlorophenol | 120-83-2 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: 2.6-Dichlorophenol | 87-65-0 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: 4-Chloro-3-methylphenol | 59-50-7 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: 2.3.5.6-Tetrachlorophenol | 935-95-5 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: 2.4.5-Trichlorophenol | 95-95-4 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: 2.4.6-Trichlorophenol | 88-06-2 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: 2.3.4.5 & 2.3.4.6-Tetrachlorophenol | 4901-51-3/58-9 0-2 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: Pentachlorophenol | 87-86-5 | 0.2 | mg/kg | <0.2 | <0.2 | 0.0 | No Limit |
| EM2205886-006 | SX_OB_20220402_04_02_ SS_Triplicate_ALS | EP075-EM: 2-Chlorophenol | 95-57-8 | 0.03 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP075-EM: 2.4-Dichlorophenol | 120-83-2 | 0.03 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP075-EM: 2.6-Dichlorophenol | 87-65-0 | 0.03 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP075-EM: 4-Chloro-3-methylphenol | 59-50-7 | 0.03 | mg/kg | <1.00 | <1.00 | 0.0 | No Limit |
| | | EP075-EM: 2.3.5.6-Tetrachlorophenol | 935-95-5 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: 2.4.5-Trichlorophenol | 95-95-4 | 0.05 | mg/kg | <1.00 | <1.00 | 0.0 | No Limit |
| | | EP075-EM: 2.4.6-Trichlorophenol | 88-06-2 | 0.05 | mg/kg | <1.00 | <1.00 | 0.0 | No Limit |
| | | EP075-EM: 2.3.4.5 & 2.3.4.6-Tetrachlorophenol | 4901-51-3/58-9 0-2 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: Pentachlorophenol | 87-86-5 | 0.2 | mg/kg | <1.0 | <1.0 | 0.0 | No Limit |

Sub-Matrix: **SOIL**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Laboratory Duplicate (DUP) Report | | | | | |
| **EP075A: Phenolic Compounds (Non-halogenated) (QC Lot: 4269397)** | | | | | | | | | |
| EM2205808-043 | Anonymous | EP075-EM: Phenol | 108-95-2 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EP075-EM: 2-Methylphenol | 95-48-7 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EP075-EM: 3- & 4-Methylphenol | 1319-77-3 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EP075-EM: 2-Nitrophenol | 88-75-5 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EP075-EM: 2.4-Dimethylphenol | 105-67-9 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EP075-EM: 2.4-Dinitrophenol | 51-28-5 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EP075-EM: 4-Nitrophenol | 100-02-7 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EP075-EM: 2-Methyl-4.6-dinitrophenol | 8071-51-0 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EP075-EM: Dinoseb | 88-85-7 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EP075-EM: 2-Cyclohexyl-4.6-Dinitrophenol | 131-89-5 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| EM2205886-006 | SX_OB_20220402_04_02_SS_Triplicate_ALS | EP075-EM: Phenol | 108-95-2 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EP075-EM: 2-Methylphenol | 95-48-7 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EP075-EM: 3- & 4-Methylphenol | 1319-77-3 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EP075-EM: 2-Nitrophenol | 88-75-5 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EP075-EM: 2.4-Dimethylphenol | 105-67-9 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EP075-EM: 2.4-Dinitrophenol | 51-28-5 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EP075-EM: 4-Nitrophenol | 100-02-7 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EP075-EM: 2-Methyl-4.6-dinitrophenol | 8071-51-0 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EP075-EM: Dinoseb | 88-85-7 | 5 | mg/kg | <20 | <20 | 0.0 | No Limit |
| | | EP075-EM: 2-Cyclohexyl-4.6-Dinitrophenol | 131-89-5 | 5 | mg/kg | <20 | <20 | 0.0 | No Limit |
| **EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4269397)** | | | | | | | | | |
| EM2205808-043 | Anonymous | EP075-EM: Naphthalene | 91-20-3 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Acenaphthene | 83-32-9 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Acenaphthylene | 208-96-8 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Fluorene | 86-73-7 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Phenanthrene | 85-01-8 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Anthracene | 120-12-7 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Fluoranthene | 206-44-0 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Pyrene | 129-00-0 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Benz(a)anthracene | 56-55-3 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Chrysene | 218-01-9 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Benzo(a)pyrene | 50-32-8 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Indeno(1.2.3.cd)pyrene | 193-39-5 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Dibenz(a.h)anthracene | 53-70-3 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Benzo(g.h.i)perylene | 191-24-2 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene | 205-99-2 207-08-9 | 1 | mg/kg | <1.0 | <1.0 | 0.0 | No Limit |
| EM2205886-006 | SX_OB_20220402_04_02_SS_Triplicate_ALS | EP075-EM: Naphthalene | 91-20-3 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |

Sub-Matrix: **SOIL**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Laboratory Duplicate (DUP) Report | | | | | |
| **EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4269397) - continued** | | | | | | | | | |
| EM2205886-006 | SX_OB_20220402_04_02_ SS_Triplicate_ALS | EP075-EM: Acenaphthene | 83-32-9 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Acenaphthylene | 208-96-8 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Fluorene | 86-73-7 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Phenanthrene | 85-01-8 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Anthracene | 120-12-7 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Fluoranthene | 206-44-0 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Pyrene | 129-00-0 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Benz(a)anthracene | 56-55-3 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Chrysene | 218-01-9 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Benzo(a)pyrene | 50-32-8 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Indeno(1.2.3.cd)pyrene | 193-39-5 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Dibenz(a.h)anthracene | 53-70-3 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Benzo(g.h.i)perylene | 191-24-2 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene | 205-99-2 207-08-9 | 1 | mg/kg | <1.0 | <1.0 | 0.0 | No Limit |
| **EP075I: Organochlorine Pesticides (QC Lot: 4269397)** | | | | | | | | | |
| EM2205808-043 | Anonymous | EP075-EM: alpha-BHC | 319-84-6 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Hexachlorobenzene (HCB) | 118-74-1 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: beta-BHC | 319-85-7 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: gamma-BHC | 58-89-9 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: delta-BHC | 319-86-8 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Heptachlor | 76-44-8 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Aldrin | 309-00-2 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Heptachlor epoxide | 1024-57-3 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: cis-Chlordane | 5103-71-9 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: trans-Chlordane | 5103-74-2 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Endosulfan 1 | 959-98-8 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Dieldrin | 60-57-1 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Endrin aldehyde | 7421-93-4 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Endrin | 72-20-8 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Endosulfan 2 | 33213-65-9 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Endosulfan sulfate | 1031-07-8 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Methoxychlor | 72-43-5 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: 4.4`-DDE | 72-55-9 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: 4.4`-DDD | 72-54-8 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: 4.4`-DDT | 50-29-3 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| EM2205886-006 | SX_OB_20220402_04_02_ SS_Triplicate_ALS | EP075-EM: alpha-BHC | 319-84-6 | 0.03 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: Hexachlorobenzene (HCB) | 118-74-1 | 0.03 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |

Sub-Matrix: **SOIL**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Laboratory Duplicate (DUP) Report | | | | | |
| **EP075I: Organochlorine Pesticides (QC Lot: 4269397) - continued** | | | | | | | | | |
| EM2205886-006 | SX_OB_20220402_04_02_ SS_Triplicate_ALS | EP075-EM: beta-BHC | 319-85-7 | 0.03 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: gamma-BHC | 58-89-9 | 0.03 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: delta-BHC | 319-86-8 | 0.03 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: Heptachlor | 76-44-8 | 0.03 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: Aldrin | 309-00-2 | 0.03 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: Heptachlor epoxide | 1024-57-3 | 0.03 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: cis-Chlordane | 5103-71-9 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: trans-Chlordane | 5103-74-2 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Endosulfan 1 | 959-98-8 | 0.03 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: Dieldrin | 60-57-1 | 0.03 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: Endrin aldehyde | 7421-93-4 | 0.03 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: Endrin | 72-20-8 | 0.03 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: Endosulfan 2 | 33213-65-9 | 0.03 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: Endosulfan sulfate | 1031-07-8 | 0.03 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: Methoxychlor | 72-43-5 | 0.03 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: 4.4`-DDE | 72-55-9 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: 4.4`-DDD | 72-54-8 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: 4.4`-DDT | 50-29-3 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| **EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4265612)** | | | | | | | | | |
| EM2205886-001 | SX_OB_20220401_20_08_ SS_Primary_ALS | EP074-UT: C6 - C9 Fraction | ---- | 10 | mg/kg | <20 | <20 | 0.0 | No Limit |
| **EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4269396)** | | | | | | | | | |
| EM2205808-043 | Anonymous | EP071-EM: C15 - C28 Fraction | ---- | 100 | mg/kg | <100 | <100 | 0.0 | No Limit |
| | | EP071-EM: C29 - C36 Fraction | ---- | 100 | mg/kg | <100 | <100 | 0.0 | No Limit |
| | | EP071-EM: C10 - C14 Fraction | ---- | 50 | mg/kg | <50 | <50 | 0.0 | No Limit |
| | | EP071-EM: C10 - C36 Fraction (sum) | ---- | 50 | mg/kg | <50 | <50 | 0.0 | No Limit |
| EM2205886-006 | SX_OB_20220402_04_02_ SS_Triplicate_ALS | EP071-EM: C15 - C28 Fraction | ---- | 100 | mg/kg | <100 | <100 | 0.0 | No Limit |
| | | EP071-EM: C29 - C36 Fraction | ---- | 100 | mg/kg | <100 | <100 | 0.0 | No Limit |
| | | EP071-EM: C10 - C14 Fraction | ---- | 50 | mg/kg | <50 | <50 | 0.0 | No Limit |
| | | EP071-EM: C10 - C36 Fraction (sum) | ---- | 50 | mg/kg | <50 | <50 | 0.0 | No Limit |
| **EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4265612)** | | | | | | | | | |
| EM2205886-001 | SX_OB_20220401_20_08_ SS_Primary_ALS | EP074-UT: C6 - C10 Fraction | C6_C10 | 10 | mg/kg | <20 | <20 | 0.0 | No Limit |
| | | EP074-UT: C6 - C10 Fraction minus BTEX (F1) | C6_C10-BTEX | 10 | mg/kg | <20 | <20 | 0.0 | No Limit |
| **EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4269396)** | | | | | | | | | |
| EM2205808-043 | Anonymous | EP071-EM: >C16 - C34 Fraction | ---- | 100 | mg/kg | <100 | <100 | 0.0 | No Limit |
| | | EP071-EM: >C34 - C40 Fraction | ---- | 100 | mg/kg | <100 | <100 | 0.0 | No Limit |
| | | EP071-EM: >C10 - C16 Fraction | ---- | 50 | mg/kg | <50 | <50 | 0.0 | No Limit |

Sub-Matrix: **SOIL**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Laboratory Duplicate (DUP) Report | | | | | |
| **EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4269396) - continued** | | | | | | | | | |
| EM2205808-043 | Anonymous | EP071-EM: >C10 - C40 Fraction (sum) | ---- | 50 | mg/kg | <50 | <50 | 0.0 | No Limit |
| EM2205886-006 | SX_OB_20220402_04_02_SS_Triplicate_ALS | EP071-EM: >C16 - C34 Fraction | ---- | 100 | mg/kg | <100 | <100 | 0.0 | No Limit |
| | | EP071-EM: >C34 - C40 Fraction | ---- | 100 | mg/kg | <100 | <100 | 0.0 | No Limit |
| | | EP071-EM: >C10 - C16 Fraction | ---- | 50 | mg/kg | <50 | <50 | 0.0 | No Limit |
| | | EP071-EM: >C10 - C40 Fraction (sum) | ---- | 50 | mg/kg | <50 | <50 | 0.0 | No Limit |
| **EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4268126)** | | | | | | | | | |
| EM2205792-001 | Anonymous | EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| EM2205918-002 | Anonymous | EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4268126)** | | | | | | | | | |
| EM2205792-001 | Anonymous | EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.001 | mg/kg | <0.001 | <0.001 | 0.0 | No Limit |
| EM2205918-002 | Anonymous | EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |

Sub-Matrix: **SOIL**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Laboratory Duplicate (DUP) Report | | | | | |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4268126) - continued** | | | | | | | | | |
| EM2205918-002 | Anonymous | EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.001 | mg/kg | <0.001 | <0.001 | 0.0 | No Limit |
| **EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4268126)** | | | | | | | | | |
| EM2205792-001 | Anonymous | EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| EM2205918-002 | Anonymous | EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4268126)** | | | | | | | | | |
| EM2205792-001 | Anonymous | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| EM2205918-002 | Anonymous | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |

Sub-Matrix: **SOIL**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
|---|---|---|---|---|---|---|---|---|---|
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4268126) - continued** | | | | | | | | | |
| EM2205918-002 | Anonymous | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| **EP231P: PFAS Sums (QC Lot: 4268126)** | | | | | | | | | |
| EM2205792-001 | Anonymous | EP231X: Sum of PFAS | ---- | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Sum of PFHxS and PFOS | 355-46-4/1763-23-1 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Sum of PFAS (WA DER List) | ---- | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| EM2205918-002 | Anonymous | EP231X: Sum of PFAS | ---- | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Sum of PFHxS and PFOS | 355-46-4/1763-23-1 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Sum of PFAS (WA DER List) | ---- | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |

Sub-Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
|---|---|---|---|---|---|---|---|---|---|
| **EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4271683)** | | | | | | | | | |
| EM2205932-004 | Anonymous | EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X-INJ: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X-INJ: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X-INJ: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| **EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4274095)** | | | | | | | | | |
| EM2205886-005 | SX_OB_20220402_00_00_SS_Primary_ALS | EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| EM2205940-003 | Anonymous | EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |

Sub-Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
| **EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4274095) - continued** | | | | | | | | | |
| EM2205940-003 | Anonymous | EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| **EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4274112)** | | | | | | | | | |
| EM2205886-009 | SX_OB_20220401_20_08_SS_Primary_ALS | EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| EM2205914-015 | Anonymous | EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.01 | µg/L | 0.12 | 0.12 | 0.0 | 0% - 50% |
| | | EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.01 | µg/L | 3.52 | 3.45 | 2.0 | 0% - 20% |
| | | EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.02 | µg/L | 0.02 | 0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4271683)** | | | | | | | | | |
| EM2205932-004 | Anonymous | EP231X-INJ: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X-INJ: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X-INJ: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X-INJ: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X-INJ: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X-INJ: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X-INJ: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X-INJ: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X-INJ: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X-INJ: Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.1 | µg/L | <0.10 | <0.10 | 0.0 | No Limit |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4274095)** | | | | | | | | | |
| EM2205886-005 | SX_OB_20220402_00_00_SS_Primary_ALS | EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |

Sub-Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4274095) - continued** | | | | | | | | | |
| EM2205886-005 | SX_OB_20220402_00_00_ SS_Primary_ALS | EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.1 | µg/L | <0.1 | <0.1 | 0.0 | No Limit |
| EM2205940-003 | Anonymous | EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.1 | µg/L | <0.1 | <0.1 | 0.0 | No Limit |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4274112)** | | | | | | | | | |
| EM2205886-009 | SX_OB_20220401_20_08_ SS_Primary_ALS | EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.1 | µg/L | <0.1 | <0.1 | 0.0 | No Limit |
| EM2205914-015 | Anonymous | EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.01 | µg/L | 0.02 | 0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.1 | µg/L | <0.1 | <0.1 | 0.0 | No Limit |

Sub-Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Laboratory Duplicate (DUP) Report | | | | | |
| **EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4271683)** | | | | | | | | | |
| EM2205932-004 | Anonymous | EP231X-INJ: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| **EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4274095)** | | | | | | | | | |
| EM2205886-005 | SX_OB_20220402_00_00_SS_Primary_ALS | EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| EM2205940-003 | Anonymous | EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |

Sub-Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Laboratory Duplicate (DUP) Report | | | | | |
| **EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4274095) - continued** | | | | | | | | | |
| EM2205940-003 | Anonymous | EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| **EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4274112)** | | | | | | | | | |
| EM2205886-009 | SX_OB_20220401_20_08_SS_Primary_ALS | EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.02 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.02 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.02 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| EM2205914-015 | Anonymous | EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4271683)** | | | | | | | | | |
| EM2205932-004 | Anonymous | EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4274095)** | | | | | | | | | |

Sub-Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Laboratory Duplicate (DUP) Report | | | | | |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4274095) - continued** | | | | | | | | | |
| EM2205886-005 | SX_OB_20220402_00_00_SS_Primary_ALS | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| EM2205940-003 | Anonymous | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4274112)** | | | | | | | | | |
| EM2205886-009 | SX_OB_20220401_20_08_SS_Primary_ALS | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| EM2205914-015 | Anonymous | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| **EP231P: PFAS Sums (QC Lot: 4271683)** | | | | | | | | | |
| EM2205932-004 | Anonymous | EP231X-INJ: Sum of PFAS | ---- | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X-INJ: Sum of PFHxS and PFOS | 355-46-4/1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X-INJ: Sum of PFAS (WA DER List) | ---- | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| **EP231P: PFAS Sums (QC Lot: 4274095)** | | | | | | | | | |
| EM2205886-005 | SX_OB_20220402_00_00_SS_Primary_ALS | EP231X: Sum of PFAS | ---- | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |

Sub-Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Laboratory Duplicate (DUP) Report | | | | | |
| **EP231P: PFAS Sums (QC Lot: 4274095) - continued** | | | | | | | | | |
| EM2205886-005 | SX_OB_20220402_00_00_SS_Primary_ALS | EP231X: Sum of PFHxS and PFOS | 355-46-4/1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Sum of PFAS (WA DER List) | ---- | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| EM2205940-003 | Anonymous | EP231X: Sum of PFAS | ---- | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Sum of PFHxS and PFOS | 355-46-4/1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Sum of PFAS (WA DER List) | ---- | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| **EP231P: PFAS Sums (QC Lot: 4274112)** | | | | | | | | | |
| EM2205886-009 | SX_OB_20220401_20_08_SS_Primary_ALS | EP231X: Sum of PFAS | ---- | 0.01 | µg/L | <0.10 | <0.10 | 0.0 | No Limit |
| | | EP231X: Sum of PFHxS and PFOS | 355-46-4/1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Sum of PFAS (WA DER List) | ---- | 0.01 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| EM2205914-015 | Anonymous | EP231X: Sum of PFAS | ---- | 0.01 | µg/L | 3.68 | 3.61 | 1.9 | 0% - 20% |
| | | EP231X: Sum of PFHxS and PFOS | 355-46-4/1763-23-1 | 0.01 | µg/L | 3.64 | 3.57 | 1.9 | 0% - 20% |
| | | EP231X: Sum of PFAS (WA DER List) | ---- | 0.01 | µg/L | 3.66 | 3.59 | 1.9 | 0% - 20% |

## 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: 4270115)** | | | | | | | | |
| EG005T: Arsenic | 7440-38-2 | 5 | mg/kg | <5 | 123 mg/kg | 96.7 | 70.0 | 130 |
| EG005T: Cadmium | 7440-43-9 | 1 | mg/kg | <1 | 1.23 mg/kg | 63.0 | 50.0 | 130 |
| EG005T: Chromium | 7440-47-3 | 2 | mg/kg | <2 | 20.2 mg/kg | 108 | 70.0 | 130 |
| EG005T: Copper | 7440-50-8 | 5 | mg/kg | <5 | 55.9 mg/kg | 98.9 | 70.0 | 130 |
| EG005T: Lead | 7439-92-1 | 5 | mg/kg | <5 | 62.4 mg/kg | 89.9 | 70.0 | 130 |
| EG005T: Molybdenum | 7439-98-7 | 2 | mg/kg | <2 | 2.19 mg/kg | 81.9 | 70.0 | 130 |
| EG005T: Nickel | 7440-02-0 | 2 | mg/kg | <2 | 15.4 mg/kg | 97.1 | 70.0 | 130 |
| EG005T: Selenium | 7782-49-2 | 5 | mg/kg | <5 | ---- | ---- | ---- | ---- |
| EG005T: Silver | 7440-22-4 | 2 | mg/kg | <2 | 2.9 mg/kg | 91.9 | 70.0 | 130 |
| EG005T: Tin | 7440-31-5 | 5 | mg/kg | <5 | 5.33 mg/kg | 130 | 70.0 | 130 |
| EG005T: Zinc | 7440-66-6 | 5 | mg/kg | <5 | 162 mg/kg | 129 | 70.0 | 130 |
| **EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel) (QCLot: 4270705)** | | | | | | | | |
| EN60-DIa-P: Final pH | ---- | 0.1 | pH Unit | 7.1 | ---- | ---- | ---- | ---- |
| **EA001: pH in soil using 0.01M CaCl extract (QCLot: 4271370)** | | | | | | | | |
| EA001: pH (CaCl2) | ---- | ---- | pH Unit | ---- | 4 pH Unit | 101 | 98.8 | 101 |
| | | | | ---- | 7 pH Unit | 100 | 99.3 | 101 |
| **EA001: pH in soil using 0.01M CaCl extract (QCLot: 4271371)** | | | | | | | | |
| EA001: pH (CaCl2) | ---- | ---- | pH Unit | ---- | 4 pH Unit | 100 | 98.8 | 101 |
| | | | | ---- | 7 pH Unit | 101 | 99.3 | 101 |
| **EG035T: Total Recoverable Mercury by FIMS (QCLot: 4270116)** | | | | | | | | |
| EG035T: Mercury | 7439-97-6 | 0.1 | mg/kg | <0.1 | 0.64 mg/kg | 99.2 | 70.0 | 130 |
| **EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4270148)** | | | | | | | | |
| EG048G: Hexavalent Chromium | 18540-29-9 | 0.5 | mg/kg | <0.5 | 20 mg/kg | 82.7 | 70.0 | 130 |
| **EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4271348)** | | | | | | | | |
| EK026SF: Total Cyanide | 57-12-5 | 1 | mg/kg | <1 | 20 mg/kg | 79.8 | 70.0 | 130 |
| **EK040T: Fluoride Total (QCLot: 4270153)** | | | | | | | | |
| EK040T: Fluoride | 16984-48-8 | 40 | mg/kg | <40 | 400 mg/kg | 103 | 75.2 | 110 |
| **EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4269395)** | | | | | | | | |
| EP066-EM: Total Polychlorinated biphenyls | ---- | 0.1 | mg/kg | <0.1 | 1 mg/kg | 95.8 | 67.4 | 136 |
| **EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4265612)** | | | | | | | | |
| EP074-UT: Benzene | 71-43-2 | 0.2 | mg/kg | <0.2 | 2.1 mg/kg | 78.6 | 69.2 | 116 |
| EP074-UT: Toluene | 108-88-3 | 0.5 | mg/kg | <0.5 | 2.1 mg/kg | 78.6 | 67.7 | 116 |
| EP074-UT: Ethylbenzene | 100-41-4 | 0.5 | mg/kg | <0.5 | 2.1 mg/kg | 77.4 | 66.6 | 115 |

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 | High |
|---|---|---|---|---|---|---|---|---|
| **EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4265612) - continued** | | | | | | | | |
| EP074-UT: meta- & para-Xylene | 108-38-3 106-42-3 | 0.5 | mg/kg | <0.5 | 4.2 mg/kg | 77.8 | 65.2 | 112 |
| EP074-UT: Styrene | 100-42-5 | 0.5 | mg/kg | <0.5 | 2.1 mg/kg | 72.8 | 69.4 | 111 |
| EP074-UT: ortho-Xylene | 95-47-6 | 0.5 | mg/kg | <0.5 | 2.1 mg/kg | 71.3 | 68.4 | 110 |
| **EP074H: Naphthalene (QCLot: 4265612)** | | | | | | | | |
| EP074-UT: Naphthalene | 91-20-3 | 1 | mg/kg | <1 | 0.6 mg/kg | 84.6 | 72.3 | 114 |
| **EP074I: Volatile Halogenated Compounds (QCLot: 4265612)** | | | | | | | | |
| EP074-UT: Vinyl chloride | 75-01-4 | 0.02 | mg/kg | <0.02 | 0.1 mg/kg | 91.8 | 47.0 | 138 |
| EP074-UT: 1.1-Dichloroethene | 75-35-4 | 0.01 | mg/kg | <0.01 | 0.1 mg/kg | 74.2 | 57.6 | 125 |
| EP074-UT: Methylene chloride | 75-09-2 | 0.4 | mg/kg | <0.4 | 2.1 mg/kg | 80.4 | 72.3 | 115 |
| EP074-UT: trans-1.2-Dichloroethene | 156-60-5 | 0.02 | mg/kg | <0.02 | 0.1 mg/kg | 78.4 | 60.5 | 122 |
| EP074-UT: cis-1.2-Dichloroethene | 156-59-2 | 0.01 | mg/kg | <0.01 | 0.1 mg/kg | 80.0 | 70.3 | 112 |
| EP074-UT: Chloroform | 67-66-3 | 0.02 | mg/kg | <0.02 | 0.1 mg/kg | 81.6 | 66.6 | 115 |
| EP074-UT: 1.1.1-Trichloroethane | 71-55-6 | 0.01 | mg/kg | <0.01 | 0.1 mg/kg | 75.0 | 64.4 | 122 |
| EP074-UT: Carbon Tetrachloride | 56-23-5 | 0.01 | mg/kg | <0.01 | 0.1 mg/kg | 72.0 | 58.4 | 127 |
| EP074-UT: 1.2-Dichloroethane | 107-06-2 | 0.02 | mg/kg | <0.02 | 0.1 mg/kg | 79.4 | 72.9 | 114 |
| EP074-UT: Trichloroethene | 79-01-6 | 0.02 | mg/kg | <0.02 | 0.1 mg/kg | 78.4 | 64.7 | 115 |
| EP074-UT: 1.1.2-Trichloroethane | 79-00-5 | 0.04 | mg/kg | <0.04 | 0.1 mg/kg | 90.0 | 72.6 | 116 |
| EP074-UT: Tetrachloroethene | 127-18-4 | 0.02 | mg/kg | <0.02 | 0.1 mg/kg | 67.2 | 60.0 | 119 |
| EP074-UT: 1.1.1.2-Tetrachloroethane | 630-20-6 | 0.01 | mg/kg | <0.01 | 0.1 mg/kg | 78.6 | 71.8 | 116 |
| EP074-UT: 1.1.2.2-Tetrachloroethane | 79-34-5 | 0.02 | mg/kg | <0.02 | 0.1 mg/kg | 84.7 | 66.1 | 116 |
| EP074-UT: Hexachlorobutadiene | 87-68-3 | 0.02 | mg/kg | <0.02 | 0.1 mg/kg | 77.6 | 39.8 | 128 |
| EP074-UT: Chlorobenzene | 108-90-7 | 0.02 | mg/kg | <0.02 | 0.1 mg/kg | 82.8 | 70.3 | 113 |
| EP074-UT: 1.4-Dichlorobenzene | 106-46-7 | 0.02 | mg/kg | <0.02 | 0.1 mg/kg | 92.6 | 62.6 | 113 |
| EP074-UT: 1.2-Dichlorobenzene | 95-50-1 | 0.02 | mg/kg | <0.02 | 0.1 mg/kg | 80.4 | 70.8 | 110 |
| EP074-UT: 1.2.4-Trichlorobenzene | 120-82-1 | 0.01 | mg/kg | <0.01 | 0.1 mg/kg | 81.9 | 48.4 | 120 |
| **EP075A: Phenolic Compounds (Halogenated) (QCLot: 4269397)** | | | | | | | | |
| EP075-EM: 2-Chlorophenol | 95-57-8 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 100 | 74.5 | 126 |
| EP075-EM: 2.4-Dichlorophenol | 120-83-2 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 98.8 | 72.7 | 126 |
| EP075-EM: 2.6-Dichlorophenol | 87-65-0 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 98.1 | 73.5 | 132 |
| EP075-EM: 4-Chloro-3-methylphenol | 59-50-7 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 98.3 | 72.8 | 128 |
| EP075-EM: 2.4.5-Trichlorophenol | 95-95-4 | 0.05 | mg/kg | <0.05 | 2 mg/kg | 99.9 | 73.3 | 134 |
| EP075-EM: 2.4.6-Trichlorophenol | 88-06-2 | 0.05 | mg/kg | <0.05 | 2 mg/kg | 99.7 | 72.4 | 128 |
| EP075-EM: 2.3.5.6-Tetrachlorophenol | 935-95-5 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 96.5 | 69.4 | 126 |
| EP075-EM: 2.3.4.5 & 2.3.4.6-Tetrachlorophenol | 4901-51-3/5 8-90-2 | 0.05 | mg/kg | <0.05 | 4 mg/kg | 108 | 71.9 | 128 |
| EP075-EM: Pentachlorophenol | 87-86-5 | 0.2 | mg/kg | <0.2 | 4 mg/kg | 99.8 | 54.4 | 135 |
| **EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4269397)** | | | | | | | | |

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 |
|---|---|---|---|---|---|---|---|---|
| **EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4269397) - continued** | | | | | | | | |
| EP075-EM: Phenol | 108-95-2 | 1 | mg/kg | <1 | 2 mg/kg | 102 | 71.5 | 130 |
| EP075-EM: 2-Methylphenol | 95-48-7 | 1 | mg/kg | <1 | 2 mg/kg | 95.5 | 73.4 | 129 |
| EP075-EM: 3- & 4-Methylphenol | 1319-77-3 | 1 | mg/kg | <1 | 4 mg/kg | 96.3 | 74.3 | 129 |
| EP075-EM: 2-Nitrophenol | 88-75-5 | 1 | mg/kg | <1 | 2 mg/kg | 96.1 | 70.9 | 133 |
| EP075-EM: 2.4-Dimethylphenol | 105-67-9 | 1 | mg/kg | <1 | 2 mg/kg | 96.1 | 71.8 | 132 |
| EP075-EM: 2.4-Dinitrophenol | 51-28-5 | 5 | mg/kg | <5 | 10 mg/kg | 92.1 | 41.0 | 156 |
| EP075-EM: 4-Nitrophenol | 100-02-7 | 5 | mg/kg | <5 | 10 mg/kg | 105 | 65.3 | 134 |
| EP075-EM: 2-Methyl-4.6-dinitrophenol | 8071-51-0 | 5 | mg/kg | <5 | 10 mg/kg | 91.5 | 43.6 | 128 |
| EP075-EM: Dinoseb | 88-85-7 | 5 | mg/kg | <5 | 10 mg/kg | 94.1 | 62.0 | 128 |
| EP075-EM: 2-Cyclohexyl-4.6-Dinitrophenol | 131-89-5 | 5 | mg/kg | <5 | 10 mg/kg | 88.0 | 34.5 | 137 |
| **EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4269397)** | | | | | | | | |
| EP075-EM: Naphthalene | 91-20-3 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 101 | 73.0 | 131 |
| EP075-EM: Acenaphthene | 83-32-9 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 101 | 76.3 | 130 |
| EP075-EM: Acenaphthylene | 208-96-8 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 99.8 | 72.0 | 135 |
| EP075-EM: Fluorene | 86-73-7 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 102 | 74.4 | 131 |
| EP075-EM: Phenanthrene | 85-01-8 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 101 | 73.3 | 130 |
| EP075-EM: Anthracene | 120-12-7 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 100 | 78.4 | 127 |
| EP075-EM: Fluoranthene | 206-44-0 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 102 | 75.3 | 132 |
| EP075-EM: Pyrene | 129-00-0 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 103 | 75.4 | 130 |
| EP075-EM: Benz(a)anthracene | 56-55-3 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 105 | 69.6 | 133 |
| EP075-EM: Chrysene | 218-01-9 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 107 | 75.0 | 133 |
| EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene | 205-99-2<br>207-08-9 | 1 | mg/kg | <1.0 | 4 mg/kg | 109 | 75.8 | 133 |
| EP075-EM: Benzo(a)pyrene | 50-32-8 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 109 | 65.1 | 130 |
| EP075-EM: Indeno(1.2.3.cd)pyrene | 193-39-5 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 101 | 72.1 | 134 |
| EP075-EM: Dibenz(a.h)anthracene | 53-70-3 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 99.5 | 72.9 | 135 |
| EP075-EM: Benzo(g.h.i)perylene | 191-24-2 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 110 | 71.3 | 134 |
| **EP075I: Organochlorine Pesticides (QCLot: 4269397)** | | | | | | | | |
| EP075-EM: alpha-BHC | 319-84-6 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 98.8 | 71.0 | 129 |
| EP075-EM: Hexachlorobenzene (HCB) | 118-74-1 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 98.8 | 74.8 | 126 |
| EP075-EM: beta-BHC | 319-85-7 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 97.0 | 75.7 | 130 |
| EP075-EM: gamma-BHC | 58-89-9 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 101 | 70.8 | 130 |
| EP075-EM: delta-BHC | 319-86-8 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 101 | 76.5 | 134 |
| EP075-EM: Heptachlor | 76-44-8 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 98.1 | 75.5 | 131 |
| EP075-EM: Aldrin | 309-00-2 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 97.9 | 76.8 | 130 |
| EP075-EM: Heptachlor epoxide | 1024-57-3 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 97.0 | 73.6 | 130 |
| EP075-EM: cis-Chlordane | 5103-71-9 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 98.1 | 75.0 | 133 |
| EP075-EM: trans-Chlordane | 5103-74-2 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 98.0 | 75.3 | 131 |
| EP075-EM: Endosulfan 1 | 959-98-8 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 100 | 69.4 | 134 |

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 |
| **EP075I: Organochlorine Pesticides (QCLot: 4269397) - continued** | | | | | | | | |
| EP075-EM: 4.4`-DDE | 72-55-9 | 0.05 | mg/kg | <0.05 | 2 mg/kg | 105 | 71.0 | 132 |
| EP075-EM: Dieldrin | 60-57-1 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 103 | 78.0 | 133 |
| EP075-EM: Endrin aldehyde | 7421-93-4 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 101 | 69.0 | 143 |
| EP075-EM: Endrin | 72-20-8 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 91.2 | 55.7 | 145 |
| EP075-EM: Endosulfan 2 | 33213-65-9 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 106 | 71.4 | 135 |
| EP075-EM: 4.4`-DDD | 72-54-8 | 0.05 | mg/kg | <0.05 | 2 mg/kg | 100 | 74.8 | 134 |
| EP075-EM: Endosulfan sulfate | 1031-07-8 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 104 | 70.2 | 135 |
| EP075-EM: 4.4`-DDT | 50-29-3 | 0.05 | mg/kg | <0.05 | 2 mg/kg | 102 | 77.7 | 133 |
| EP075-EM: Methoxychlor | 72-43-5 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 103 | 63.6 | 135 |
| **EP080/071: Total Petroleum Hydrocarbons (QCLot: 4265612)** | | | | | | | | |
| EP074-UT: C6 - C9 Fraction | ---- | 10 | mg/kg | <10 | 39.6 mg/kg | 69.1 | 61.1 | 119 |
| **EP080/071: Total Petroleum Hydrocarbons (QCLot: 4269396)** | | | | | | | | |
| EP071-EM: C10 - C14 Fraction | ---- | 50 | mg/kg | <50 | 760 mg/kg | 92.2 | 74.4 | 129 |
| EP071-EM: C15 - C28 Fraction | ---- | 100 | mg/kg | <100 | 3270 mg/kg | 93.3 | 81.0 | 123 |
| EP071-EM: C29 - C36 Fraction | ---- | 100 | mg/kg | <100 | 1550 mg/kg | 92.8 | 81.8 | 121 |
| EP071-EM: C10 - C36 Fraction (sum) | ---- | 50 | mg/kg | <50 | 5580 mg/kg | 93.0 | 70.0 | 130 |
| **EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4265612)** | | | | | | | | |
| EP074-UT: C6 - C10 Fraction | C6_C10 | 10 | mg/kg | <10 | 48.9 mg/kg | 70.6 | 59.9 | 119 |
| EP074-UT: C6 - C10 Fraction minus BTEX (F1) | C6_C10-BTEX | 10 | mg/kg | <10 | ---- | ---- | ---- | ---- |
| **EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4269396)** | | | | | | | | |
| EP071-EM: >C10 - C16 Fraction | ---- | 50 | mg/kg | <50 | 1110 mg/kg | 88.6 | 75.4 | 132 |
| EP071-EM: >C16 - C34 Fraction | ---- | 100 | mg/kg | <100 | 4180 mg/kg | 92.0 | 80.8 | 120 |
| EP071-EM: >C34 - C40 Fraction | ---- | 100 | mg/kg | <100 | 290 mg/kg | 95.2 | 73.3 | 136 |
| EP071-EM: >C10 - C40 Fraction (sum) | ---- | 50 | mg/kg | <50 | 5580 mg/kg | 91.4 | 70.0 | 130 |
| **EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4268126)** | | | | | | | | |
| EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.0002 | mg/kg | <0.0002 | 0.00111 mg/kg | 109 | 72.0 | 128 |
| EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.0002 | mg/kg | <0.0002 | 0.00118 mg/kg | 96.7 | 73.0 | 123 |
| EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.0002 | mg/kg | <0.0002 | 0.0014 mg/kg | 77.2 | 67.0 | 130 |
| EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.0002 | mg/kg | <0.0002 | 0.00119 mg/kg | 107 | 70.0 | 132 |
| EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.0002 | mg/kg | <0.0002 | 0.00116 mg/kg | 96.9 | 68.0 | 136 |
| EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.0002 | mg/kg | <0.0002 | 0.00121 mg/kg | 90.4 | 59.0 | 134 |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4268126)** | | | | | | | | |
| EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.001 | mg/kg | <0.001 | 0.00625 mg/kg | 108 | 71.0 | 135 |
| EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.0002 | mg/kg | <0.0002 | 0.00125 mg/kg | 99.2 | 69.0 | 132 |
| EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.0002 | mg/kg | <0.0002 | 0.00125 mg/kg | 108 | 70.0 | 132 |
| EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.0002 | mg/kg | <0.0002 | 0.00125 mg/kg | 106 | 71.0 | 131 |
| EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.0002 | mg/kg | <0.0002 | 0.00125 mg/kg | 98.1 | 69.0 | 133 |

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 |
|---|---|---|---|---|---|---|---|---|
| **EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4268126) - continued** | | | | | | | | |
| EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.0002 | mg/kg | <0.0002 | 0.00125 mg/kg | 105 | 72.0 | 129 |
| EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.0002 | mg/kg | <0.0002 | 0.00125 mg/kg | 105 | 69.0 | 133 |
| EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.0002 | mg/kg | <0.0002 | 0.00125 mg/kg | 95.8 | 64.0 | 136 |
| EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.0002 | mg/kg | <0.0002 | 0.00125 mg/kg | 92.2 | 69.0 | 135 |
| EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.0002 | mg/kg | <0.0002 | 0.00125 mg/kg | 90.6 | 66.0 | 139 |
| EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.0005 | mg/kg | <0.0005 | 0.00312 mg/kg | 95.5 | 69.0 | 133 |
| **EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4268126)** | | | | | | | | |
| EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.0002 | mg/kg | <0.0002 | 0.00125 mg/kg | 108 | 67.0 | 137 |
| EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.0005 | mg/kg | <0.0005 | 0.00312 mg/kg | 109 | 70.0 | 130 |
| EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.0005 | mg/kg | <0.0005 | 0.00312 mg/kg | 109 | 70.0 | 130 |
| EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.0005 | mg/kg | <0.0005 | 0.00312 mg/kg | 104 | 70.0 | 130 |
| EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.0005 | mg/kg | <0.0005 | 0.00312 mg/kg | 107 | 70.0 | 130 |
| EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.0002 | mg/kg | <0.0002 | 0.00125 mg/kg | 116 | 63.0 | 144 |
| EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.0002 | mg/kg | <0.0002 | 0.00125 mg/kg | 110 | 61.0 | 139 |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4268126)** | | | | | | | | |
| EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.0005 | mg/kg | <0.0005 | 0.00117 mg/kg | 101 | 62.0 | 145 |
| EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.0005 | mg/kg | <0.0005 | 0.00119 mg/kg | 104 | 64.0 | 140 |
| EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.0005 | mg/kg | <0.0005 | 0.0012 mg/kg | 106 | 65.0 | 137 |
| EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.0005 | mg/kg | <0.0005 | 0.00121 mg/kg | 113 | 70.0 | 130 |
| **EP231P: PFAS Sums (QCLot: 4268126)** | | | | | | | | |
| EP231X: Sum of PFAS | ---- | 0.0002 | mg/kg | <0.0002 | ---- | ---- | ---- | ---- |
| EP231X: Sum of PFHxS and PFOS | 355-46-4/1763-23-1 | 0.0002 | mg/kg | <0.0002 | ---- | ---- | ---- | ---- |
| EP231X: Sum of PFAS (WA DER List) | ---- | 0.0002 | mg/kg | <0.0002 | ---- | ---- | ---- | ---- |

Sub-Matrix: **WATER**

| 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 |
|---|---|---|---|---|---|---|---|---|
| **EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4271683)** | | | | | | | | |
| EP231X-INJ: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.02 | µg/L | <0.02 | 0.444 µg/L | 106 | 72.0 | 130 |
| EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.02 | µg/L | <0.02 | 0.47 µg/L | 98.2 | 71.0 | 127 |
| EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.01 | µg/L | <0.01 | 0.457 µg/L | 94.6 | 68.0 | 131 |
| EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.02 | µg/L | <0.02 | 0.477 µg/L | 106 | 69.0 | 134 |
| EP231X-INJ: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.01 | µg/L | <0.01 | 0.465 µg/L | 104 | 65.0 | 140 |
| EP231X-INJ: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.02 | µg/L | <0.02 | 0.482 µg/L | 118 | 53.0 | 142 |

Sub-Matrix: **WATER**

| Method: Compound | CAS Number | LOR | Unit | Method Blank (MB) Report: Result | LCS Report: Spike Concentration | Spike Recovery (%): LCS | Acceptable Limits (%): Low | Acceptable Limits (%): High |
|---|---|---|---|---|---|---|---|---|
| **EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4274095)** | | | | | | | | |
| EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.02 | µg/L | <0.02 | 0.222 µg/L | 98.1 | 72.0 | 130 |
| EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.02 | µg/L | <0.02 | 0.235 µg/L | 90.6 | 71.0 | 127 |
| EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.01 | µg/L | <0.01 | 0.228 µg/L | 91.4 | 68.0 | 131 |
| EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 89.0 | 69.0 | 134 |
| EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.01 | µg/L | <0.01 | 0.232 µg/L | 93.1 | 65.0 | 140 |
| EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.02 | µg/L | <0.02 | 0.241 µg/L | 87.1 | 53.0 | 142 |
| **EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4274112)** | | | | | | | | |
| EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.02 | µg/L | <0.02 | 0.222 µg/L | 105 | 72.0 | 130 |
| EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.02 | µg/L | <0.02 | 0.235 µg/L | 95.4 | 71.0 | 127 |
| EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.01 | µg/L | <0.01 | 0.228 µg/L | 98.6 | 68.0 | 131 |
| EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 100 | 69.0 | 134 |
| EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.01 | µg/L | <0.01 | 0.232 µg/L | 105 | 65.0 | 140 |
| EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.02 | µg/L | <0.02 | 0.241 µg/L | 112 | 53.0 | 142 |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4271683)** | | | | | | | | |
| EP231X-INJ: Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.1 | µg/L | <0.10 | 2.5 µg/L | 93.8 | 73.0 | 129 |
| EP231X-INJ: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.02 | µg/L | <0.02 | 0.5 µg/L | 103 | 72.0 | 129 |
| EP231X-INJ: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.02 | µg/L | <0.02 | 0.5 µg/L | 99.9 | 72.0 | 129 |
| EP231X-INJ: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.02 | µg/L | <0.02 | 0.5 µg/L | 90.4 | 72.0 | 130 |
| EP231X-INJ: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.01 | µg/L | <0.01 | 0.5 µg/L | 92.9 | 71.0 | 133 |
| EP231X-INJ: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.02 | µg/L | <0.02 | 0.5 µg/L | 96.8 | 69.0 | 130 |
| EP231X-INJ: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.02 | µg/L | <0.02 | 0.5 µg/L | 95.5 | 71.0 | 129 |
| EP231X-INJ: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.02 | µg/L | <0.02 | 0.5 µg/L | 83.9 | 69.0 | 133 |
| EP231X-INJ: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.02 | µg/L | <0.02 | 0.5 µg/L | 100 | 72.0 | 134 |
| EP231X-INJ: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.02 | µg/L | <0.02 | 0.5 µg/L | 91.7 | 65.0 | 144 |
| EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.05 | µg/L | <0.05 | 1.25 µg/L | 113 | 71.0 | 132 |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4274095)** | | | | | | | | |
| EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.1 | µg/L | <0.1 | 1.25 µg/L | 102 | 73.0 | 129 |
| EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 103 | 72.0 | 129 |
| EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 94.9 | 72.0 | 129 |
| EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 92.4 | 72.0 | 130 |
| EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.01 | µg/L | <0.01 | 0.25 µg/L | 90.2 | 71.0 | 133 |
| EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 97.6 | 69.0 | 130 |
| EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 98.9 | 71.0 | 129 |
| EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 93.3 | 69.0 | 133 |
| EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 94.6 | 72.0 | 134 |
| EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 90.3 | 65.0 | 144 |
| EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.05 | µg/L | <0.05 | 0.625 µg/L | 98.8 | 71.0 | 132 |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4274112)** | | | | | | | | |

Sub-Matrix: **WATER**

| 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 |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4274112) - continued** | | | | | | | | |
| EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.1 | µg/L | <0.1 | 1.25 µg/L | 95.8 | 73.0 | 129 |
| EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 98.6 | 72.0 | 129 |
| EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 97.0 | 72.0 | 129 |
| EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 97.5 | 72.0 | 130 |
| EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.01 | µg/L | <0.01 | 0.25 µg/L | 99.7 | 71.0 | 133 |
| EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 100 | 69.0 | 130 |
| EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 101 | 71.0 | 129 |
| EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 87.4 | 69.0 | 133 |
| EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 95.1 | 72.0 | 134 |
| EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 93.0 | 65.0 | 144 |
| EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.05 | µg/L | <0.05 | 0.625 µg/L | 92.4 | 71.0 | 132 |
| **EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4271683)** | | | | | | | | |
| EP231X-INJ: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.02 | µg/L | <0.02 | 0.5 µg/L | 102 | 67.0 | 137 |
| EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.05 | µg/L | <0.05 | 1.25 µg/L | 94.4 | 68.0 | 141 |
| EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.05 | µg/L | <0.05 | 1.25 µg/L | 99.3 | 70.0 | 130 |
| EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.05 | µg/L | <0.05 | 1.25 µg/L | 89.4 | 70.0 | 130 |
| EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.05 | µg/L | <0.05 | 1.25 µg/L | 91.8 | 70.0 | 130 |
| EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.02 | µg/L | <0.02 | 0.5 µg/L | 98.4 | 65.0 | 136 |
| EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.02 | µg/L | <0.02 | 0.5 µg/L | 106 | 61.0 | 135 |
| **EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4274095)** | | | | | | | | |
| EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 93.6 | 67.0 | 137 |
| EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.05 | µg/L | <0.05 | 0.625 µg/L | 113 | 68.0 | 141 |
| EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.05 | µg/L | <0.05 | 0.625 µg/L | 113 | 70.0 | 130 |
| EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.05 | µg/L | <0.05 | 0.625 µg/L | 90.5 | 70.0 | 130 |
| EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.05 | µg/L | <0.05 | 0.625 µg/L | 96.4 | 70.0 | 130 |
| EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 110 | 65.0 | 136 |
| EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 96.0 | 61.0 | 135 |
| **EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4274112)** | | | | | | | | |
| EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 108 | 67.0 | 137 |
| EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.05 | µg/L | <0.05 | 0.625 µg/L | 99.7 | 68.0 | 141 |

Sub-Matrix: **WATER**

| 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 |
| **EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4274112) - continued** | | | | | | | | |
| EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.05 | µg/L | <0.05 | 0.625 µg/L | 97.2 | 70.0 | 130 |
| EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.05 | µg/L | <0.05 | 0.625 µg/L | 99.8 | 70.0 | 130 |
| EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.05 | µg/L | <0.05 | 0.625 µg/L | 103 | 70.0 | 130 |
| EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 104 | 65.0 | 136 |
| EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 114 | 61.0 | 135 |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4271683)** | | | | | | | | |
| EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.05 | µg/L | <0.05 | 0.469 µg/L | 107 | 63.0 | 143 |
| EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.05 | µg/L | <0.05 | 0.476 µg/L | 99.4 | 64.0 | 140 |
| EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.05 | µg/L | <0.05 | 0.48 µg/L | 99.1 | 67.0 | 138 |
| EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.05 | µg/L | <0.05 | 0.483 µg/L | 77.0 | 70.0 | 130 |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4274095)** | | | | | | | | |
| EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.05 | µg/L | <0.05 | 0.234 µg/L | 91.3 | 63.0 | 143 |
| EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.05 | µg/L | <0.05 | 0.238 µg/L | 92.1 | 64.0 | 140 |
| EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.05 | µg/L | <0.05 | 0.24 µg/L | 93.5 | 67.0 | 138 |
| EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.05 | µg/L | <0.05 | 0.242 µg/L | 85.4 | 70.0 | 130 |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4274112)** | | | | | | | | |
| EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.05 | µg/L | <0.05 | 0.234 µg/L | 95.2 | 63.0 | 143 |
| EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.05 | µg/L | <0.05 | 0.238 µg/L | 107 | 64.0 | 140 |
| EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.05 | µg/L | <0.05 | 0.24 µg/L | 102 | 67.0 | 138 |
| EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.05 | µg/L | <0.05 | 0.242 µg/L | 91.6 | 70.0 | 130 |
| **EP231P: PFAS Sums (QCLot: 4271683)** | | | | | | | | |
| EP231X-INJ: Sum of PFAS | ---- | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |
| EP231X-INJ: Sum of PFHxS and PFOS | 355-46-4/17 63-23-1 | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |
| EP231X-INJ: Sum of PFAS (WA DER List) | ---- | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |
| **EP231P: PFAS Sums (QCLot: 4274095)** | | | | | | | | |
| EP231X: Sum of PFAS | ---- | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |
| EP231X: Sum of PFHxS and PFOS | 355-46-4/17 63-23-1 | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |
| EP231X: Sum of PFAS (WA DER List) | ---- | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |
| **EP231P: PFAS Sums (QCLot: 4274112)** | | | | | | | | |
| EP231X: Sum of PFAS | ---- | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |
| EP231X: Sum of PFHxS and PFOS | 355-46-4/17 63-23-1 | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |

Sub-Matrix: **WATER**

| | | | | 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 |
| **EP231P: PFAS Sums (QCLot: 4274112) - continued** | | | | | | | | |
| EP231X: Sum of PFAS (WA DER List) | ---- | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |

## 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**

| | | | | Matrix Spike (MS) Report | | | |
|---|---|---|---|---|---|---|---|
| | | | | Spike | SpikeRecovery(%) | Acceptable Limits (%) | |
| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Concentration | MS | Low | High |
| **EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4270115)** | | | | | | | |
| EM2205663-001 | Anonymous | EG005T: Arsenic | 7440-38-2 | 50 mg/kg | 97.9 | 78.0 | 124 |
| | | EG005T: Cadmium | 7440-43-9 | 50 mg/kg | 92.0 | 79.7 | 116 |
| | | EG005T: Chromium | 7440-47-3 | 50 mg/kg | 88.5 | 79.0 | 121 |
| | | EG005T: Copper | 7440-50-8 | 250 mg/kg | 97.7 | 80.0 | 120 |
| | | EG005T: Lead | 7439-92-1 | 250 mg/kg | 90.7 | 80.0 | 120 |
| | | EG005T: Nickel | 7440-02-0 | 50 mg/kg | 91.9 | 78.0 | 120 |
| | | EG005T: Zinc | 7440-66-6 | 250 mg/kg | 86.5 | 80.0 | 120 |
| **EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4270148)** | | | | | | | |
| EM2205808-039 | Anonymous | EG048G: Hexavalent Chromium | 18540-29-9 | 20 mg/kg | 67.8 | 58.0 | 114 |
| EM2205808-039 | Anonymous | EG048G: Hexavalent Chromium | 18540-29-9 | 20 mg/kg | 78.2 | 58.0 | 114 |
| **EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4271348)** | | | | | | | |
| EM2205808-044 | Anonymous | EK026SF: Total Cyanide | 57-12-5 | 20 mg/kg | 96.5 | 70.0 | 130 |
| **EK040T: Fluoride Total (QCLot: 4270153)** | | | | | | | |
| EM2205808-044 | Anonymous | EK040T: Fluoride | 16984-48-8 | 400 mg/kg | 90.1 | 70.0 | 130 |
| **EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4269395)** | | | | | | | |
| EM2205808-044 | Anonymous | EP066-EM: Total Polychlorinated biphenyls | ---- | 1 mg/kg | 98.6 | 59.6 | 152 |
| **EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4265612)** | | | | | | | |
| EM2205886-002 | SX_OB_20220401_20_09_SS_Duplicate_ALS | EP074-UT: Benzene | 71-43-2 | 2 mg/kg | 87.1 | 53.7 | 130 |
| | | EP074-UT: Toluene | 108-88-3 | 2 mg/kg | 90.8 | 55.1 | 124 |
| **EP074I: Volatile Halogenated Compounds (QCLot: 4265612)** | | | | | | | |
| EM2205886-002 | SX_OB_20220401_20_09_SS_Duplicate_ALS | EP074-UT: 1.1-Dichloroethene | 75-35-4 | 2 mg/kg | 83.6 | 38.4 | 145 |
| | | EP074-UT: Trichloroethene | 79-01-6 | 2 mg/kg | 82.0 | 48.1 | 128 |
| | | EP074-UT: Chlorobenzene | 108-90-7 | 2 mg/kg | 86.4 | 55.5 | 122 |
| **EP075A: Phenolic Compounds (Halogenated) (QCLot: 4269397)** | | | | | | | |
| EM2205808-046 | Anonymous | EP075-EM: 2-Chlorophenol | 95-57-8 | 3 mg/kg | 122 | 44.0 | 143 |
| | | EP075-EM: 4-Chloro-3-methylphenol | 59-50-7 | 3 mg/kg | 78.8 | 41.5 | 139 |

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 |
|---|---|---|---|---|---|---|---|
| **EP075A: Phenolic Compounds (Halogenated) (QCLot: 4269397) - continued** | | | | | | | |
| EM2205808-046 | Anonymous | EP075-EM: Pentachlorophenol | 87-86-5 | 3 mg/kg | 69.6 | 10.0 | 144 |
| **EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4269397)** | | | | | | | |
| EM2205808-046 | Anonymous | EP075-EM: Phenol | 108-95-2 | 3 mg/kg | 118 | 44.2 | 134 |
| | | EP075-EM: 2-Nitrophenol | 88-75-5 | 3 mg/kg | 66.9 | 34.2 | 129 |
| **EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4269397)** | | | | | | | |
| EM2205808-046 | Anonymous | EP075-EM: Acenaphthene | 83-32-9 | 3 mg/kg | 75.8 | 42.6 | 138 |
| | | EP075-EM: Pyrene | 129-00-0 | 3 mg/kg | 69.4 | 37.8 | 152 |
| **EP080/071: Total Petroleum Hydrocarbons (QCLot: 4265612)** | | | | | | | |
| EM2205886-002 | SX_OB_20220401_20_09_SS_Duplicate_ALS | EP074-UT: C6 - C9 Fraction | ---- | 28 mg/kg | 76.7 | 42.3 | 111 |
| **EP080/071: Total Petroleum Hydrocarbons (QCLot: 4269396)** | | | | | | | |
| EM2205808-045 | Anonymous | EP071-EM: C10 - C14 Fraction | ---- | 760 mg/kg | 90.6 | 71.3 | 126 |
| | | EP071-EM: C15 - C28 Fraction | ---- | 3270 mg/kg | 92.6 | 75.1 | 123 |
| | | EP071-EM: C29 - C36 Fraction | ---- | 1550 mg/kg | 92.2 | 78.1 | 120 |
| | | EP071-EM: C10 - C36 Fraction (sum) | ---- | 5580 mg/kg | 91.9 | 70.0 | 130 |
| **EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4265612)** | | | | | | | |
| EM2205886-002 | SX_OB_20220401_20_09_SS_Duplicate_ALS | EP074-UT: C6 - C10 Fraction | C6_C10 | 33 mg/kg | 75.5 | 39.9 | 109 |
| **EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4269396)** | | | | | | | |
| EM2205808-045 | Anonymous | EP071-EM: >C10 - C16 Fraction | ---- | 1110 mg/kg | 87.3 | 71.5 | 130 |
| | | EP071-EM: >C16 - C34 Fraction | ---- | 4180 mg/kg | 91.3 | 76.9 | 119 |
| | | EP071-EM: >C34 - C40 Fraction | ---- | 290 mg/kg | 95.0 | 65.3 | 139 |
| | | EP071-EM: >C10 - C40 Fraction (sum) | ---- | 5580 mg/kg | 90.6 | 70.0 | 130 |
| **EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4268126)** | | | | | | | |
| EM2205792-002 | Anonymous | EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.00111 mg/kg | 106 | 72.0 | 128 |
| | | EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.00118 mg/kg | 92.4 | 73.0 | 123 |
| | | EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.00114 mg/kg | 97.3 | 67.0 | 130 |
| | | EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.00119 mg/kg | 119 | 70.0 | 132 |
| | | EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.00116 mg/kg | 90.5 | 68.0 | 136 |
| | | EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.00121 mg/kg | 88.2 | 59.0 | 134 |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4268126)** | | | | | | | |
| EM2205792-002 | Anonymous | EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.00625 mg/kg | 105 | 71.0 | 135 |
| | | EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.00125 mg/kg | 102 | 69.0 | 132 |
| | | EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.00125 mg/kg | 104 | 70.0 | 132 |
| | | EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.00125 mg/kg | 101 | 71.0 | 131 |
| | | EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.00125 mg/kg | 95.3 | 69.0 | 133 |
| | | EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.00125 mg/kg | 108 | 72.0 | 129 |
| | | EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.00125 mg/kg | 99.2 | 69.0 | 133 |

Sub-Matrix: **SOIL**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Matrix Spike (MS) Report Spike Concentration | SpikeRecovery(%) MS | Acceptable Limits (%) Low | High |
|---|---|---|---|---|---|---|---|
| **EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4268126) - continued** | | | | | | | |
| EM2205792-002 | Anonymous | EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.00125 mg/kg | 98.1 | 64.0 | 136 |
| | | EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.00125 mg/kg | 100 | 69.0 | 135 |
| | | EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.00125 mg/kg | 94.3 | 66.0 | 139 |
| | | EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.00312 mg/kg | 98.5 | 69.0 | 133 |
| **EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4268126)** | | | | | | | |
| EM2205792-002 | Anonymous | EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.00125 mg/kg | 102 | 67.0 | 137 |
| | | EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.00312 mg/kg | 114 | 70.0 | 130 |
| | | EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.00312 mg/kg | 101 | 70.0 | 130 |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.00312 mg/kg | 99.1 | 70.0 | 130 |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.00312 mg/kg | 103 | 70.0 | 130 |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.00125 mg/kg | 102 | 63.0 | 144 |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.00125 mg/kg | 109 | 61.0 | 139 |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4268126)** | | | | | | | |
| EM2205792-002 | Anonymous | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.00117 mg/kg | 106 | 62.0 | 145 |
| | | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.00119 mg/kg | 113 | 64.0 | 140 |
| | | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.0012 mg/kg | 86.8 | 65.0 | 137 |
| | | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.00121 mg/kg | 93.2 | 70.0 | 130 |

Sub-Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Matrix Spike (MS) Report Spike Concentration | SpikeRecovery(%) MS | Acceptable Limits (%) Low | High |
|---|---|---|---|---|---|---|---|
| **EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4271683)** | | | | | | | |
| EM2205972-001 | Anonymous | EP231X-INJ: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.444 µg/L | 100 | 72.0 | 130 |
| | | EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.47 µg/L | 96.0 | 71.0 | 127 |
| | | EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.457 µg/L | 97.1 | 68.0 | 131 |
| | | EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.477 µg/L | 111 | 69.0 | 134 |
| | | EP231X-INJ: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.465 µg/L | 106 | 65.0 | 140 |
| | | EP231X-INJ: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.482 µg/L | 120 | 53.0 | 142 |
| **EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4274095)** | | | | | | | |
| EM2205943-004 | Anonymous | EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.222 µg/L | 94.9 | 72.0 | 130 |
| | | EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.235 µg/L | 91.2 | 71.0 | 127 |
| | | EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.228 µg/L | 92.1 | 68.0 | 131 |
| | | EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.238 µg/L | 104 | 69.0 | 134 |
| | | EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.232 µg/L | 95.5 | 65.0 | 140 |

Sub-Matrix: **WATER**

| | | | | Matrix Spike (MS) Report | | | |
|---|---|---|---|---|---|---|---|
| | | | | Spike | SpikeRecovery(%) | Acceptable Limits (%) | |
| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Concentration | MS | Low | High |
| **EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4274095) - continued** | | | | | | | |
| EM2205943-004 | Anonymous | EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.241 µg/L | 91.7 | 53.0 | 142 |
| **EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4274112)** | | | | | | | |
| EM2205886-014 | SX_OB_20220401_08_08_SS_Primary_ALS | EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.222 µg/L | 102 | 72.0 | 130 |
| | | EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.235 µg/L | 84.4 | 71.0 | 127 |
| | | EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.228 µg/L | 95.0 | 68.0 | 131 |
| | | EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.238 µg/L | 100 | 69.0 | 134 |
| | | EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.232 µg/L | 99.3 | 65.0 | 140 |
| | | EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.241 µg/L | 102 | 53.0 | 142 |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4271683)** | | | | | | | |
| EM2205972-001 | Anonymous | EP231X-INJ: Perfluorobutanoic acid (PFBA) | 375-22-4 | 2.5 µg/L | 84.1 | 73.0 | 129 |
| | | EP231X-INJ: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.5 µg/L | 97.8 | 72.0 | 129 |
| | | EP231X-INJ: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.5 µg/L | 99.3 | 72.0 | 129 |
| | | EP231X-INJ: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.5 µg/L | 94.2 | 72.0 | 130 |
| | | EP231X-INJ: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.5 µg/L | 92.2 | 71.0 | 133 |
| | | EP231X-INJ: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.5 µg/L | 96.3 | 69.0 | 130 |
| | | EP231X-INJ: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.5 µg/L | 98.7 | 71.0 | 129 |
| | | EP231X-INJ: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.5 µg/L | 80.0 | 69.0 | 133 |
| | | EP231X-INJ: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.5 µg/L | 102 | 72.0 | 134 |
| | | EP231X-INJ: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.5 µg/L | 94.1 | 65.0 | 144 |
| | | EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 1.25 µg/L | 105 | 71.0 | 132 |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4274095)** | | | | | | | |
| EM2205943-004 | Anonymous | EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 1.25 µg/L | 105 | 73.0 | 129 |
| | | EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.25 µg/L | 105 | 72.0 | 129 |
| | | EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.25 µg/L | 101 | 72.0 | 129 |
| | | EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.25 µg/L | 98.2 | 72.0 | 130 |
| | | EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.25 µg/L | 94.2 | 71.0 | 133 |
| | | EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.25 µg/L | 96.7 | 69.0 | 130 |
| | | EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.25 µg/L | 102 | 71.0 | 129 |
| | | EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.25 µg/L | 88.9 | 69.0 | 133 |
| | | EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.25 µg/L | 99.5 | 72.0 | 134 |
| | | EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.25 µg/L | 94.5 | 65.0 | 144 |
| | | EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.625 µg/L | 100 | 71.0 | 132 |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4274112)** | | | | | | | |
| EM2205886-014 | SX_OB_20220401_08_08_SS_Primary_ALS | EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 1.25 µg/L | 84.3 | 73.0 | 129 |
| | | EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.25 µg/L | 94.6 | 72.0 | 129 |
| | | EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.25 µg/L | 89.7 | 72.0 | 129 |
| | | EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.25 µg/L | 90.9 | 72.0 | 130 |
| | | EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.25 µg/L | 98.5 | 71.0 | 133 |

Sub-Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Matrix Spike (MS) Report Spike Concentration | SpikeRecovery(%) MS | Acceptable Limits (%) Low | Acceptable Limits (%) High |
|---|---|---|---|---|---|---|---|
| **EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4274112) - continued** | | | | | | | |
| EM2205886-014 | SX_OB_20220401_08_08_SS_Primary_ALS | EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.25 µg/L | 95.3 | 69.0 | 130 |
| | | EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.25 µg/L | 91.5 | 71.0 | 129 |
| | | EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.25 µg/L | 79.2 | 69.0 | 133 |
| | | EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.25 µg/L | 85.2 | 72.0 | 134 |
| | | EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.25 µg/L | 80.4 | 65.0 | 144 |
| | | EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.625 µg/L | 80.8 | 71.0 | 132 |
| **EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4271683)** | | | | | | | |
| EM2205972-001 | Anonymous | EP231X-INJ: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.5 µg/L | 99.1 | 67.0 | 137 |
| | | EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 1.25 µg/L | 96.5 | 68.0 | 141 |
| | | EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 1.25 µg/L | 98.9 | 70.0 | 130 |
| | | EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 1.25 µg/L | 89.2 | 70.0 | 130 |
| | | EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 1.25 µg/L | 99.7 | 70.0 | 130 |
| | | EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.5 µg/L | 104 | 65.0 | 136 |
| | | EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.5 µg/L | 107 | 61.0 | 135 |
| **EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4274095)** | | | | | | | |
| EM2205943-004 | Anonymous | EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.25 µg/L | 93.6 | 67.0 | 137 |
| | | EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.625 µg/L | 115 | 68.0 | 141 |
| | | EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.625 µg/L | 98.1 | 70.0 | 130 |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.625 µg/L | 93.6 | 70.0 | 130 |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.625 µg/L | 102 | 70.0 | 130 |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.25 µg/L | 106 | 65.0 | 136 |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.25 µg/L | 102 | 61.0 | 135 |
| **EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4274112)** | | | | | | | |
| EM2205886-014 | SX_OB_20220401_08_08_SS_Primary_ALS | EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.25 µg/L | 93.5 | 67.0 | 137 |
| | | EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.625 µg/L | 74.9 | 68.0 | 141 |
| | | EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.625 µg/L | 72.3 | 70.0 | 130 |

Sub-Matrix: **WATER**

| | | | | Matrix Spike (MS) Report | | | |
|---|---|---|---|---|---|---|---|
| | | | | Spike | SpikeRecovery(%) | Acceptable Limits (%) | |
| *Laboratory sample ID* | *Sample ID* | *Method: Compound* | *CAS Number* | Concentration | MS | Low | High |
| **EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4274112) - continued** | | | | | | | |
| EM2205886-014 | SX_OB_20220401_08_08_SS_Primary_ALS | EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.625 µg/L | 86.9 | 70.0 | 130 |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.625 µg/L | 91.2 | 70.0 | 130 |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.25 µg/L | 93.6 | 65.0 | 136 |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.25 µg/L | 94.9 | 61.0 | 135 |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4271683)** | | | | | | | |
| EM2205972-001 | Anonymous | EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.469 µg/L | 105 | 63.0 | 143 |
| | | EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.476 µg/L | 98.2 | 64.0 | 140 |
| | | EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.48 µg/L | 107 | 67.0 | 138 |
| | | EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.483 µg/L | 71.2 | 70.0 | 130 |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4274095)** | | | | | | | |
| EM2205943-004 | Anonymous | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.234 µg/L | 97.0 | 63.0 | 143 |
| | | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.238 µg/L | 102 | 64.0 | 140 |
| | | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.24 µg/L | 98.9 | 67.0 | 138 |
| | | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.242 µg/L | 92.1 | 70.0 | 130 |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4274112)** | | | | | | | |
| EM2205886-014 | SX_OB_20220401_08_08_SS_Primary_ALS | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.234 µg/L | 90.9 | 63.0 | 143 |
| | | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.238 µg/L | 104 | 64.0 | 140 |
| | | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.24 µg/L | 118 | 67.0 | 138 |
| | | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.242 µg/L | 90.2 | 70.0 | 130 |

# QA/QC Compliance Assessment to assist with Quality Review

| | | | |
|---|---|---|---|
| Work Order | : **EM2205886** | Page | : 1 of 13 |
| Client | : **AGON ENVIRONMENTAL PTY LTD** | Laboratory | : Environmental Division Melbourne |
| Contact | : DAVID LAWSON | Telephone | : +6138549 9600 |
| Project | : JC0927 | Date Samples Received | : 02-Apr-2022 |
| Site | : 20220402044000-ALS-21 | Issue Date | : 08-Apr-2022 |
| Sampler | : DL - Agon, LR - EP Risk | No. of samples received | : 14 |
| Order number | : ---- | No. of samples analysed | : 14 |

**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

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

## *Outliers : Frequency of Quality Control Samples*

Matrix: **SOIL**

| Quality Control Sample Type / Method | Count QC | Count Regular | Rate (%) Actual | Rate (%) Expected | Quality Control Specification |
|---|---|---|---|---|---|
| **Laboratory Duplicates (DUP)** | | | | | |
| Total Mercury by FIMS | 0 | 16 | 0.00 | 10.00 | NEPM 2013 B3 & ALS QC Standard |
| **Matrix Spikes (MS)** | | | | | |
| Total Mercury by FIMS | 0 | 16 | 0.00 | 5.00 | NEPM 2013 B3 & ALS QC Standard |

# *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: Date extracted | Due for extraction | Evaluation | Analysis: Date analysed | Due for analysis | Evaluation |
|---|---|---|---|---|---|---|---|---|
| **EA001: pH in soil using 0.01M CaCl extract** | | | | | | | | |
| **Soil Glass Jar - Unpreserved (EA001)** | | | | | | | | |
| SX_OB_20220401_20_08_SS_Primary_ALS, SX_OB_20220401_08_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS, | **01-Apr-2022** | **06-Apr-2022** | 08-Apr-2022 | ✓ | **06-Apr-2022** | 06-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EA001)** | | | | | | | | |
| SX_OB_20220402_00_00_SS_Primary_ALS, SX_OB_20220402_04_07_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS, | **02-Apr-2022** | **06-Apr-2022** | 09-Apr-2022 | ✓ | **06-Apr-2022** | 06-Apr-2022 | ✓ |
| **EA055: Moisture Content (Dried @ 105-110°C)** | | | | | | | | |
| **Soil Glass Jar - Unpreserved (EA055)** | | | | | | | | |
| SX_OB_20220401_20_08_SS_Primary_ALS, SX_OB_20220401_08_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS, | **01-Apr-2022** | **----** | ---- | ---- | **06-Apr-2022** | 15-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EA055)** | | | | | | | | |
| SX_OB_20220402_00_00_SS_Primary_ALS, SX_OB_20220402_04_07_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS, | **02-Apr-2022** | **----** | ---- | ---- | **06-Apr-2022** | 16-Apr-2022 | ✓ |
| **EG005(ED093)T: Total Metals by ICP-AES** | | | | | | | | |
| **Soil Glass Jar - Unpreserved (EG005T)** | | | | | | | | |
| SX_OB_20220401_20_08_SS_Primary_ALS, SX_OB_20220401_08_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS, | **01-Apr-2022** | **07-Apr-2022** | 28-Sep-2022 | ✓ | **07-Apr-2022** | 28-Sep-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EG005T)** | | | | | | | | |
| SX_OB_20220402_00_00_SS_Primary_ALS, SX_OB_20220402_04_07_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS, | **02-Apr-2022** | **07-Apr-2022** | 29-Sep-2022 | ✓ | **07-Apr-2022** | 29-Sep-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* |
| **EG035T: Total Recoverable Mercury by FIMS** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EG035T)** SX_OB_20220401_20_08_SS_Primary_ALS, SX_OB_20220401_20_09_SS_Duplicate_ALS, SX_OB_20220401_08_08_SS_Primary_ALS | **01-Apr-2022** | **07-Apr-2022** | 29-Apr-2022 | ✓ | **07-Apr-2022** | 29-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EG035T)** SX_OB_20220402_00_00_SS_Primary_ALS, SX_OB_20220402_04_02_SS_Triplicate_ALS, SX_OB_20220402_04_07_SS_Primary_ALS | **02-Apr-2022** | **07-Apr-2022** | 30-Apr-2022 | ✓ | **07-Apr-2022** | 30-Apr-2022 | ✓ |
| **EG048: Hexavalent Chromium (Alkaline Digest)** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EG048G)** SX_OB_20220401_20_08_SS_Primary_ALS, SX_OB_20220401_20_09_SS_Duplicate_ALS, SX_OB_20220401_08_08_SS_Primary_ALS | **01-Apr-2022** | **06-Apr-2022** | 29-Apr-2022 | ✓ | **06-Apr-2022** | 13-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EG048G)** SX_OB_20220402_00_00_SS_Primary_ALS, SX_OB_20220402_04_02_SS_Triplicate_ALS, SX_OB_20220402_04_07_SS_Primary_ALS | **02-Apr-2022** | **06-Apr-2022** | 30-Apr-2022 | ✓ | **06-Apr-2022** | 13-Apr-2022 | ✓ |
| **EK026SF: Total CN by Segmented Flow Analyser** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EK026SF)** SX_OB_20220401_20_08_SS_Primary_ALS, SX_OB_20220401_20_09_SS_Duplicate_ALS, SX_OB_20220401_08_08_SS_Primary_ALS | **01-Apr-2022** | **06-Apr-2022** | 15-Apr-2022 | ✓ | **07-Apr-2022** | 20-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EK026SF)** SX_OB_20220402_00_00_SS_Primary_ALS, SX_OB_20220402_04_02_SS_Triplicate_ALS, SX_OB_20220402_04_07_SS_Primary_ALS | **02-Apr-2022** | **06-Apr-2022** | 16-Apr-2022 | ✓ | **07-Apr-2022** | 20-Apr-2022 | ✓ |
| **EK040T: Fluoride Total** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EK040T)** SX_OB_20220401_20_08_SS_Primary_ALS, SX_OB_20220401_20_09_SS_Duplicate_ALS, SX_OB_20220401_08_08_SS_Primary_ALS | **01-Apr-2022** | **06-Apr-2022** | 29-Apr-2022 | ✓ | **08-Apr-2022** | 29-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EK040T)** SX_OB_20220402_00_00_SS_Primary_ALS, SX_OB_20220402_04_02_SS_Triplicate_ALS, SX_OB_20220402_04_07_SS_Primary_ALS | **02-Apr-2022** | **06-Apr-2022** | 30-Apr-2022 | ✓ | **08-Apr-2022** | 30-Apr-2022 | ✓ |
| **EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)** | | | | | | | |
| **Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P)** SX_OB_20220401_20_08_SS_Primary_ALS, SX_OB_20220401_20_09_SS_Duplicate_ALS, SX_OB_20220401_08_08_SS_Primary_ALS | **01-Apr-2022** | **06-Apr-2022** | 28-Sep-2022 | ✓ | **----** | ---- | ---- |
| **Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P)** SX_OB_20220402_00_00_SS_Primary_ALS, SX_OB_20220402_04_02_SS_Triplicate_ALS, SX_OB_20220402_04_07_SS_Primary_ALS | **02-Apr-2022** | **06-Apr-2022** | 29-Sep-2022 | ✓ | **----** | ---- | ---- |
| **EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)** | | | | | | | |
| **Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)** SX_OB_20220401_20_08_SS_Primary_ALS, SX_OB_20220401_20_09_SS_Duplicate_ALS, SX_OB_20220401_08_08_SS_Primary_ALS | **01-Apr-2022** | **06-Apr-2022** | 28-Sep-2022 | ✓ | **----** | ---- | ---- |
| **Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)** SX_OB_20220402_00_00_SS_Primary_ALS, SX_OB_20220402_04_02_SS_Triplicate_ALS, SX_OB_20220402_04_07_SS_Primary_ALS | **02-Apr-2022** | **06-Apr-2022** | 29-Sep-2022 | ✓ | **----** | ---- | ---- |

Work Order : EM2205886
Client : AGON ENVIRONMENTAL PTY LTD
Project : JC0927

Matrix: **SOIL**

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

| Method<br>Container / Client Sample ID(s) | | Sample Date | Extraction / Preparation<br>Date extracted | Due for extraction | Evaluation | Analysis<br>Date analysed | Due for analysis | Evaluation |
|---|---|---|---|---|---|---|---|---|
| **EP066: Polychlorinated Biphenyls (PCB)** | | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP066-EM)**<br>SX_OB_20220401_20_08_SS_Primary_ALS,<br>SX_OB_20220401_08_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS, | **01-Apr-2022** | **06-Apr-2022** | 15-Apr-2022 | ✓ | **06-Apr-2022** | 16-May-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP066-EM)**<br>SX_OB_20220402_00_00_SS_Primary_ALS,<br>SX_OB_20220402_04_07_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS, | **02-Apr-2022** | **06-Apr-2022** | 16-Apr-2022 | ✓ | **06-Apr-2022** | 16-May-2022 | ✓ |
| **EP074A: Monocyclic Aromatic Hydrocarbons** | | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP074-UT)**<br>SX_OB_20220401_20_08_SS_Primary_ALS,<br>SX_OB_20220401_08_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS, | **01-Apr-2022** | **05-Apr-2022** | 08-Apr-2022 | ✓ | **05-Apr-2022** | 08-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP074-UT)**<br>SX_OB_20220402_00_00_SS_Primary_ALS,<br>SX_OB_20220402_04_07_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS, | **02-Apr-2022** | **05-Apr-2022** | 09-Apr-2022 | ✓ | **05-Apr-2022** | 09-Apr-2022 | ✓ |
| **EP074H: Naphthalene** | | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP074-UT)**<br>SX_OB_20220401_20_08_SS_Primary_ALS,<br>SX_OB_20220401_08_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS, | **01-Apr-2022** | **05-Apr-2022** | 08-Apr-2022 | ✓ | **05-Apr-2022** | 08-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP074-UT)**<br>SX_OB_20220402_00_00_SS_Primary_ALS,<br>SX_OB_20220402_04_07_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS, | **02-Apr-2022** | **05-Apr-2022** | 09-Apr-2022 | ✓ | **05-Apr-2022** | 09-Apr-2022 | ✓ |
| **EP074I: Volatile Halogenated Compounds** | | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP074-UT)**<br>SX_OB_20220401_20_08_SS_Primary_ALS,<br>SX_OB_20220401_08_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS, | **01-Apr-2022** | **05-Apr-2022** | 08-Apr-2022 | ✓ | **05-Apr-2022** | 08-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP074-UT)**<br>SX_OB_20220402_00_00_SS_Primary_ALS,<br>SX_OB_20220402_04_07_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS, | **02-Apr-2022** | **05-Apr-2022** | 09-Apr-2022 | ✓ | **05-Apr-2022** | 09-Apr-2022 | ✓ |
| **EP075A: Phenolic Compounds (Halogenated)** | | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP075-EM)**<br>SX_OB_20220401_20_08_SS_Primary_ALS,<br>SX_OB_20220401_08_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS, | **01-Apr-2022** | **06-Apr-2022** | 15-Apr-2022 | ✓ | **06-Apr-2022** | 16-May-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP075-EM)**<br>SX_OB_20220402_00_00_SS_Primary_ALS,<br>SX_OB_20220402_04_07_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS, | **02-Apr-2022** | **06-Apr-2022** | 16-Apr-2022 | ✓ | **06-Apr-2022** | 16-May-2022 | ✓ |
| **EP075A: Phenolic Compounds (Non-halogenated)** | | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP075-EM)**<br>SX_OB_20220401_20_08_SS_Primary_ALS,<br>SX_OB_20220401_08_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS, | **01-Apr-2022** | **06-Apr-2022** | 15-Apr-2022 | ✓ | **06-Apr-2022** | 16-May-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP075-EM)**<br>SX_OB_20220402_00_00_SS_Primary_ALS,<br>SX_OB_20220402_04_07_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS, | **02-Apr-2022** | **06-Apr-2022** | 16-Apr-2022 | ✓ | **06-Apr-2022** | 16-May-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 |
| **EP075B: Polynuclear Aromatic Hydrocarbons** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP075-EM)** SX_OB_20220401_20_08_SS_Primary_ALS, SX_OB_20220401_20_09_SS_Duplicate_ALS, SX_OB_20220401_08_08_SS_Primary_ALS | **01-Apr-2022** | **06-Apr-2022** | 15-Apr-2022 | ✓ | **06-Apr-2022** | 16-May-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP075-EM)** SX_OB_20220402_00_00_SS_Primary_ALS, SX_OB_20220402_04_02_SS_Triplicate_ALS, SX_OB_20220402_04_07_SS_Primary_ALS | **02-Apr-2022** | **06-Apr-2022** | 16-Apr-2022 | ✓ | **06-Apr-2022** | 16-May-2022 | ✓ |
| **EP075I: Organochlorine Pesticides** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP075-EM)** SX_OB_20220401_20_08_SS_Primary_ALS, SX_OB_20220401_20_09_SS_Duplicate_ALS, SX_OB_20220401_08_08_SS_Primary_ALS | **01-Apr-2022** | **06-Apr-2022** | 15-Apr-2022 | ✓ | **06-Apr-2022** | 16-May-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP075-EM)** SX_OB_20220402_00_00_SS_Primary_ALS, SX_OB_20220402_04_02_SS_Triplicate_ALS, SX_OB_20220402_04_07_SS_Primary_ALS | **02-Apr-2022** | **06-Apr-2022** | 16-Apr-2022 | ✓ | **06-Apr-2022** | 16-May-2022 | ✓ |
| **EP080/071: Total Petroleum Hydrocarbons** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP074-UT)** SX_OB_20220401_20_08_SS_Primary_ALS, SX_OB_20220401_20_09_SS_Duplicate_ALS, SX_OB_20220401_08_08_SS_Primary_ALS | **01-Apr-2022** | **05-Apr-2022** | 08-Apr-2022 | ✓ | **05-Apr-2022** | 08-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP071-EM)** SX_OB_20220401_20_08_SS_Primary_ALS, SX_OB_20220401_20_09_SS_Duplicate_ALS, SX_OB_20220401_08_08_SS_Primary_ALS | **01-Apr-2022** | **06-Apr-2022** | 15-Apr-2022 | ✓ | **06-Apr-2022** | 16-May-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP074-UT)** SX_OB_20220402_00_00_SS_Primary_ALS, SX_OB_20220402_04_02_SS_Triplicate_ALS, SX_OB_20220402_04_07_SS_Primary_ALS | **02-Apr-2022** | **05-Apr-2022** | 09-Apr-2022 | ✓ | **05-Apr-2022** | 09-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP071-EM)** SX_OB_20220402_00_00_SS_Primary_ALS, SX_OB_20220402_04_02_SS_Triplicate_ALS, SX_OB_20220402_04_07_SS_Primary_ALS | **02-Apr-2022** | **06-Apr-2022** | 16-Apr-2022 | ✓ | **06-Apr-2022** | 16-May-2022 | ✓ |
| **EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP074-UT)** SX_OB_20220401_20_08_SS_Primary_ALS, SX_OB_20220401_20_09_SS_Duplicate_ALS, SX_OB_20220401_08_08_SS_Primary_ALS | **01-Apr-2022** | **05-Apr-2022** | 08-Apr-2022 | ✓ | **05-Apr-2022** | 08-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP071-EM)** SX_OB_20220401_20_08_SS_Primary_ALS, SX_OB_20220401_20_09_SS_Duplicate_ALS, SX_OB_20220401_08_08_SS_Primary_ALS | **01-Apr-2022** | **06-Apr-2022** | 15-Apr-2022 | ✓ | **06-Apr-2022** | 16-May-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP074-UT)** SX_OB_20220402_00_00_SS_Primary_ALS, SX_OB_20220402_04_02_SS_Triplicate_ALS, SX_OB_20220402_04_07_SS_Primary_ALS | **02-Apr-2022** | **05-Apr-2022** | 09-Apr-2022 | ✓ | **05-Apr-2022** | 09-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP071-EM)** SX_OB_20220402_00_00_SS_Primary_ALS, SX_OB_20220402_04_02_SS_Triplicate_ALS, SX_OB_20220402_04_07_SS_Primary_ALS | **02-Apr-2022** | **06-Apr-2022** | 16-Apr-2022 | ✓ | **06-Apr-2022** | 16-May-2022 | ✓ |

Matrix: **SOIL**

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

| Method<br>Container / Client Sample ID(s) | | Sample Date | Extraction / Preparation | | | Analysis | | |
|---|---|---|---|---|---|---|---|---|
| | | | Date extracted | Due for extraction | Evaluation | Date analysed | Due for analysis | Evaluation |
| **EP231A: Perfluoroalkyl Sulfonic Acids** | | | | | | | | |
| **HDPE Soil Jar (EP231X)**<br>SX_OB_20220401_20_08_SS_Primary_ALS,<br>SX_OB_20220401_08_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS, | **01-Apr-2022** | **05-Apr-2022** | 28-Sep-2022 | ✓ | **07-Apr-2022** | 15-May-2022 | ✓ |
| **HDPE Soil Jar (EP231X)**<br>SX_OB_20220402_00_00_SS_Primary_ALS,<br>SX_OB_20220402_04_07_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS, | **02-Apr-2022** | **05-Apr-2022** | 29-Sep-2022 | ✓ | **07-Apr-2022** | 15-May-2022 | ✓ |
| **EP231B: Perfluoroalkyl Carboxylic Acids** | | | | | | | | |
| **HDPE Soil Jar (EP231X)**<br>SX_OB_20220401_20_08_SS_Primary_ALS,<br>SX_OB_20220401_08_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS, | **01-Apr-2022** | **05-Apr-2022** | 28-Sep-2022 | ✓ | **07-Apr-2022** | 15-May-2022 | ✓ |
| **HDPE Soil Jar (EP231X)**<br>SX_OB_20220402_00_00_SS_Primary_ALS,<br>SX_OB_20220402_04_07_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS, | **02-Apr-2022** | **05-Apr-2022** | 29-Sep-2022 | ✓ | **07-Apr-2022** | 15-May-2022 | ✓ |
| **EP231C: Perfluoroalkyl Sulfonamides** | | | | | | | | |
| **HDPE Soil Jar (EP231X)**<br>SX_OB_20220401_20_08_SS_Primary_ALS,<br>SX_OB_20220401_08_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS, | **01-Apr-2022** | **05-Apr-2022** | 28-Sep-2022 | ✓ | **07-Apr-2022** | 15-May-2022 | ✓ |
| **HDPE Soil Jar (EP231X)**<br>SX_OB_20220402_00_00_SS_Primary_ALS,<br>SX_OB_20220402_04_07_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS, | **02-Apr-2022** | **05-Apr-2022** | 29-Sep-2022 | ✓ | **07-Apr-2022** | 15-May-2022 | ✓ |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids** | | | | | | | | |
| **HDPE Soil Jar (EP231X)**<br>SX_OB_20220401_20_08_SS_Primary_ALS,<br>SX_OB_20220401_08_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS, | **01-Apr-2022** | **05-Apr-2022** | 28-Sep-2022 | ✓ | **07-Apr-2022** | 15-May-2022 | ✓ |
| **HDPE Soil Jar (EP231X)**<br>SX_OB_20220402_00_00_SS_Primary_ALS,<br>SX_OB_20220402_04_07_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS, | **02-Apr-2022** | **05-Apr-2022** | 29-Sep-2022 | ✓ | **07-Apr-2022** | 15-May-2022 | ✓ |
| **EP231P: PFAS Sums** | | | | | | | | |
| **HDPE Soil Jar (EP231X)**<br>SX_OB_20220401_20_08_SS_Primary_ALS,<br>SX_OB_20220401_08_08_SS_Primary_ALS | SX_OB_20220401_20_09_SS_Duplicate_ALS, | **01-Apr-2022** | **05-Apr-2022** | 28-Sep-2022 | ✓ | **07-Apr-2022** | 15-May-2022 | ✓ |
| **HDPE Soil Jar (EP231X)**<br>SX_OB_20220402_00_00_SS_Primary_ALS,<br>SX_OB_20220402_04_07_SS_Primary_ALS | SX_OB_20220402_04_02_SS_Triplicate_ALS, | **02-Apr-2022** | **05-Apr-2022** | 29-Sep-2022 | ✓ | **07-Apr-2022** | 15-May-2022 | ✓ |

Matrix: **WATER**

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

| Method<br>Container / Client Sample ID(s) | Sample Date | Extraction / Preparation | | | Analysis | | |
|---|---|---|---|---|---|---|---|
| | | Date extracted | Due for extraction | Evaluation | Date analysed | Due for analysis | Evaluation |

Matrix: **WATER**

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

| Method / Container / Client Sample ID(s) | | Sample Date | Extraction / Preparation: Date extracted | Due for extraction | Evaluation | Analysis: Date analysed | Due for analysis | Evaluation |
|---|---|---|---|---|---|---|---|---|
| **EP231A: Perfluoroalkyl Sulfonic Acids** | | | | | | | | |
| **HDPE (no PTFE) (EP231X-INJ)** | | | | | | | | |
| SX_OB_20220401_20_29_SB_Blank_ALS, | SX_OB_20220401_20_28_SR_Rinsate_ALS | **01-Apr-2022** | **06-Apr-2022** | 28-Sep-2022 | ✓ | **06-Apr-2022** | 28-Sep-2022 | ✓ |
| **HDPE (no PTFE) (EP231X)** | | | | | | | | |
| SX_OB_20220401_20_08_SS_Primary_ALS, | SX_OB_20220401_20_09_SS_Duplicate_ALS, | **06-Apr-2022** | **07-Apr-2022** | 03-Oct-2022 | ✓ | **07-Apr-2022** | 03-Oct-2022 | ✓ |
| SX_OB_20220402_00_00_SS_Primary_ALS, | SX_OB_20220402_04_02_SS_Triplicate_ALS, | | | | | | | |
| SX_OB_20220402_04_07_SS_Primary_ALS, | SX_OB_20220401_08_08_SS_Primary_ALS, | | | | | | | |
| SX_OB_20220401_20_08_SS_Primary_ALS, | SX_OB_20220401_20_09_SS_Duplicate_ALS, | | | | | | | |
| SX_OB_20220402_00_00_SS_Primary_ALS, | SX_OB_20220402_04_02_SS_Triplicate_ALS, | | | | | | | |
| SX_OB_20220402_04_07_SS_Primary_ALS, | SX_OB_20220401_08_08_SS_Primary_ALS | | | | | | | |
| **EP231B: Perfluoroalkyl Carboxylic Acids** | | | | | | | | |
| **HDPE (no PTFE) (EP231X-INJ)** | | | | | | | | |
| SX_OB_20220401_20_29_SB_Blank_ALS, | SX_OB_20220401_20_28_SR_Rinsate_ALS | **01-Apr-2022** | **06-Apr-2022** | 28-Sep-2022 | ✓ | **06-Apr-2022** | 28-Sep-2022 | ✓ |
| **HDPE (no PTFE) (EP231X)** | | | | | | | | |
| SX_OB_20220401_20_08_SS_Primary_ALS, | SX_OB_20220401_20_09_SS_Duplicate_ALS, | **06-Apr-2022** | **07-Apr-2022** | 03-Oct-2022 | ✓ | **07-Apr-2022** | 03-Oct-2022 | ✓ |
| SX_OB_20220402_00_00_SS_Primary_ALS, | SX_OB_20220402_04_02_SS_Triplicate_ALS, | | | | | | | |
| SX_OB_20220402_04_07_SS_Primary_ALS, | SX_OB_20220401_08_08_SS_Primary_ALS, | | | | | | | |
| SX_OB_20220401_20_08_SS_Primary_ALS, | SX_OB_20220401_20_09_SS_Duplicate_ALS, | | | | | | | |
| SX_OB_20220402_00_00_SS_Primary_ALS, | SX_OB_20220402_04_02_SS_Triplicate_ALS, | | | | | | | |
| SX_OB_20220402_04_07_SS_Primary_ALS, | SX_OB_20220401_08_08_SS_Primary_ALS | | | | | | | |
| **EP231C: Perfluoroalkyl Sulfonamides** | | | | | | | | |
| **HDPE (no PTFE) (EP231X-INJ)** | | | | | | | | |
| SX_OB_20220401_20_29_SB_Blank_ALS, | SX_OB_20220401_20_28_SR_Rinsate_ALS | **01-Apr-2022** | **06-Apr-2022** | 28-Sep-2022 | ✓ | **06-Apr-2022** | 28-Sep-2022 | ✓ |
| **HDPE (no PTFE) (EP231X)** | | | | | | | | |
| SX_OB_20220401_20_08_SS_Primary_ALS, | SX_OB_20220401_20_09_SS_Duplicate_ALS, | **06-Apr-2022** | **07-Apr-2022** | 03-Oct-2022 | ✓ | **07-Apr-2022** | 03-Oct-2022 | ✓ |
| SX_OB_20220402_00_00_SS_Primary_ALS, | SX_OB_20220402_04_02_SS_Triplicate_ALS, | | | | | | | |
| SX_OB_20220402_04_07_SS_Primary_ALS, | SX_OB_20220401_08_08_SS_Primary_ALS, | | | | | | | |
| SX_OB_20220401_20_08_SS_Primary_ALS, | SX_OB_20220401_20_09_SS_Duplicate_ALS, | | | | | | | |
| SX_OB_20220402_00_00_SS_Primary_ALS, | SX_OB_20220402_04_02_SS_Triplicate_ALS, | | | | | | | |
| SX_OB_20220402_04_07_SS_Primary_ALS, | SX_OB_20220401_08_08_SS_Primary_ALS | | | | | | | |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids** | | | | | | | | |
| **HDPE (no PTFE) (EP231X-INJ)** | | | | | | | | |
| SX_OB_20220401_20_29_SB_Blank_ALS, | SX_OB_20220401_20_28_SR_Rinsate_ALS | **01-Apr-2022** | **06-Apr-2022** | 28-Sep-2022 | ✓ | **06-Apr-2022** | 28-Sep-2022 | ✓ |
| **HDPE (no PTFE) (EP231X)** | | | | | | | | |
| SX_OB_20220401_20_08_SS_Primary_ALS, | SX_OB_20220401_20_09_SS_Duplicate_ALS, | **06-Apr-2022** | **07-Apr-2022** | 03-Oct-2022 | ✓ | **07-Apr-2022** | 03-Oct-2022 | ✓ |
| SX_OB_20220402_00_00_SS_Primary_ALS, | SX_OB_20220402_04_02_SS_Triplicate_ALS, | | | | | | | |
| SX_OB_20220402_04_07_SS_Primary_ALS, | SX_OB_20220401_08_08_SS_Primary_ALS, | | | | | | | |
| SX_OB_20220401_20_08_SS_Primary_ALS, | SX_OB_20220401_20_09_SS_Duplicate_ALS, | | | | | | | |
| SX_OB_20220402_00_00_SS_Primary_ALS, | SX_OB_20220402_04_02_SS_Triplicate_ALS, | | | | | | | |
| SX_OB_20220402_04_07_SS_Primary_ALS, | SX_OB_20220401_08_08_SS_Primary_ALS | | | | | | | |

Matrix: **WATER**

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

| Method<br>Container / Client Sample ID(s) | | Sample Date | Extraction / Preparation | | | Analysis | | |
|---|---|---|---|---|---|---|---|---|
| | | | Date extracted | Due for extraction | Evaluation | Date analysed | Due for analysis | Evaluation |
| **EP231P: PFAS Sums** | | | | | | | | |
| **HDPE (no PTFE) (EP231X-INJ)** | | | | | | | | |
| SX_OB_20220401_20_29_SB_Blank_ALS, | SX_OB_20220401_20_28_SR_Rinsate_ALS | **01-Apr-2022** | **06-Apr-2022** | 28-Sep-2022 | ✓ | **06-Apr-2022** | 28-Sep-2022 | ✓ |
| **HDPE (no PTFE) (EP231X)** | | | | | | | | |
| SX_OB_20220401_20_08_SS_Primary_ALS, | SX_OB_20220401_20_09_SS_Duplicate_ALS, | **06-Apr-2022** | **07-Apr-2022** | 03-Oct-2022 | ✓ | **07-Apr-2022** | 03-Oct-2022 | ✓ |
| SX_OB_20220402_00_00_SS_Primary_ALS, | SX_OB_20220402_04_02_SS_Triplicate_ALS, | | | | | | | |
| SX_OB_20220402_04_07_SS_Primary_ALS, | SX_OB_20220401_08_08_SS_Primary_ALS, | | | | | | | |
| SX_OB_20220401_20_08_SS_Primary_ALS, | SX_OB_20220401_20_09_SS_Duplicate_ALS, | | | | | | | |
| SX_OB_20220402_00_00_SS_Primary_ALS, | SX_OB_20220402_04_02_SS_Triplicate_ALS, | | | | | | | |
| SX_OB_20220402_04_07_SS_Primary_ALS, | SX_OB_20220401_08_08_SS_Primary_ALS | | | | | | | |

## 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)** | | | | | | | |
| Hexavalent Chromium by Alkaline Digestion and DA Finish | EG048G | 2 | 20 | **10.00** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Moisture Content | EA055 | 2 | 20 | **10.00** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| PCB - VIC EPA 448.3 Screen | EP066-EM | 2 | 20 | **10.00** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X | 2 | 20 | **10.00** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| pH in soil using a 0.01M CaCl2 extract | EA001 | 4 | 40 | **10.00** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Semivolatile Organic Compounds - Waste Classification | EP075-EM | 2 | 20 | **10.00** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Cyanide by Segmented Flow Analyser | EK026SF | 2 | 20 | **10.00** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Fluoride | EK040T | 2 | 15 | **13.33** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Mercury by FIMS | EG035T | 0 | 16 | **0.00** | **10.00** | ✗ | NEPM 2013 B3 & ALS QC Standard |
| Total Metals by ICP-AES | EG005T | 3 | 19 | **15.79** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| TRH - Semivolatile Fraction | EP071-EM | 2 | 20 | **10.00** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Volatile Organic Compounds - Ultra-trace | EP074-UT | 1 | 6 | **16.67** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| **Laboratory Control Samples (LCS)** | | | | | | | |
| Hexavalent Chromium by Alkaline Digestion and DA Finish | EG048G | 2 | 20 | **10.00** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| PCB - VIC EPA 448.3 Screen | EP066-EM | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| pH in soil using a 0.01M CaCl2 extract | EA001 | 4 | 40 | **10.00** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Semivolatile Organic Compounds - Waste Classification | EP075-EM | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Cyanide by Segmented Flow Analyser | EK026SF | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Fluoride | EK040T | 1 | 15 | **6.67** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Mercury by FIMS | EG035T | 1 | 16 | **6.25** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Metals by ICP-AES | EG005T | 1 | 19 | **5.26** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| TRH - Semivolatile Fraction | EP071-EM | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Volatile Organic Compounds - Ultra-trace | EP074-UT | 1 | 6 | **16.67** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| **Method Blanks (MB)** | | | | | | | |
| Deionised Water Leach - Plastic Leaching Vessel | EN60-DIa-P | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Hexavalent Chromium by Alkaline Digestion and DA Finish | EG048G | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| PCB - VIC EPA 448.3 Screen | EP066-EM | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Semivolatile Organic Compounds - Waste Classification | EP075-EM | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Cyanide by Segmented Flow Analyser | EK026SF | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Fluoride | EK040T | 1 | 15 | **6.67** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Mercury by FIMS | EG035T | 1 | 16 | **6.25** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Metals by ICP-AES | EG005T | 1 | 19 | **5.26** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| TRH - Semivolatile Fraction | EP071-EM | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Volatile Organic Compounds - Ultra-trace | EP074-UT | 1 | 6 | **16.67** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |

Matrix: **SOIL**

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

| Quality Control Sample Type / *Analytical Methods* | *Method* | *Count* QC | Regular | *Rate (%)* Actual | Expected | Evaluation | *Quality Control Specification* |
|---|---|---|---|---|---|---|---|
| **Matrix Spikes (MS)** | | | | | | | |
| Hexavalent Chromium by Alkaline Digestion and DA Finish | EG048G | 2 | 20 | **10.00** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| PCB - VIC EPA 448.3 Screen | EP066-EM | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Semivolatile Organic Compounds - Waste Classification | EP075-EM | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Cyanide by Segmented Flow Analyser | EK026SF | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Fluoride | EK040T | 1 | 15 | **6.67** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Mercury by FIMS | EG035T | 0 | 16 | **0.00** | **5.00** | × | NEPM 2013 B3 & ALS QC Standard |
| Total Metals by ICP-AES | EG005T | 1 | 19 | **5.26** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| TRH - Semivolatile Fraction | EP071-EM | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Volatile Organic Compounds - Ultra-trace | EP074-UT | 1 | 6 | **16.67** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |

Matrix: **WATER**

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

| Quality Control Sample Type / *Analytical Methods* | *Method* | *Count* QC | Regular | *Rate (%)* Actual | Expected | Evaluation | *Quality Control Specification* |
|---|---|---|---|---|---|---|---|
| **Laboratory Duplicates (DUP)** | | | | | | | |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X | 4 | 35 | **11.43** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X-INJ | 1 | 7 | **14.29** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| **Laboratory Control Samples (LCS)** | | | | | | | |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X | 2 | 35 | **5.71** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X-INJ | 1 | 7 | **14.29** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| **Method Blanks (MB)** | | | | | | | |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X | 2 | 35 | **5.71** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X-INJ | 1 | 7 | **14.29** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| **Matrix Spikes (MS)** | | | | | | | |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X | 2 | 35 | **5.71** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X-INJ | 1 | 7 | **14.29** | **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* |
| --- | --- | --- | --- |
| pH in soil using a 0.01M CaCl2 extract | EA001 | SOIL | In house: Referenced to Rayment and Lyons 4B3 (mod.) or 4B4 (mod.) 10 g of soil is mixed with 50 mL of 0.01M CaCl2 and tumbled end over end for 1 hour. pH is measured from the continuous suspension. This method is compliant with NEPM Schedule B(3). |
| 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) |
| Hexavalent Chromium by Alkaline Digestion and DA Finish | EG048G | SOIL | In house: Referenced to USEPA SW846, Method 3060. Hexavalent chromium is extracted by alkaline digestion. The digest is determined by photometrically by automatic discrete analyser, following pH adjustment. The instrument uses colour development using dephenylcarbazide. Each run of samples is measured against a five-point calibration curve. This method is compliant with NEPM Schedule B(3) |
| Total Cyanide by Segmented Flow Analyser | EK026SF | SOIL | In house: Referenced to APHA 4500-CN C / ASTM D7511 / ISO 14403. Caustic leachates of soil samples are introduced into an automated segmented flow analyser. Complex bound cyanide is decomposed in a continuously flowing stream, at a pH of 3.8, by the effect of UV light. A UV-B lamp (312 nm) and a decomposition spiral of borosilicate glass are used to filter out UV light with a wavelength of less than 290 nm thus preventing the conversion of thiocyanate into cyanide. The hydrogen cyanide present at a pH of 3.8 is separated by gas dialysis. The hydrogen cyanide is then determined photometrically, based on the reaction of cyanide with chloramine-T to form cyanogen chloride. This then reacts with 4-pyridine carboxylic acid and 1,3-dimethylbarbituric acid to give a red colour which is measured at 600 nm. This method is compliant with NEPM Schedule B(3). |
| Total Fluoride | EK040T | SOIL | (In-house) Total fluoride is determined by ion specific electrode (ISE) in a solution obtained after a Sodium Carbonate / Potassium Carbonate fusion dissolution. |
| PCB - VIC EPA 448.3 Screen | EP066-EM | 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). |
| TRH - Semivolatile Fraction | EP071-EM | SOIL | In house: Referenced to USEPA SW 846 - 8015A Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40. |
| Volatile Organic Compounds - Ultra-trace | EP074-UT | SOIL | In house: Referenced to USEPA SW 846 - 8260 Extracts are analysed by Purge and Trap, Capillary GC/MS in partial SIM/Scan mode. Quantification is by comparison against an established multi-point calibration curves. This method is compliant with NEPM Schedule B(3). |

| Analytical Methods | Method | Matrix | Method Descriptions |
| --- | --- | --- | --- |
| Volatile Organic Compounds - Ultra-trace - Summations | EP074-UT-SUM | SOIL | Summation of MAHs and VHCs |
| Semivolatile Organic Compounds - Waste Classification | EP075-EM | 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). |
| SVOC - Waste Classification (Sums) | EP075-EM-SUM | SOIL | Summations for EP075 (EM variation) |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X | SOIL | In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements. |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X-INJ | WATER | In house: Direct injection analysis of fresh waters after dilution (1:1) with mobile phase solvent. Analysis by LC-Electrospray-MS-MS, Negative Mode using MRM. Where commercially available, isotopically labelled analogues of the target analytes are used as internal standards for quantification. Where a labelled analogue is not commercially available, the internal standard with similar chemistry and the closest retention time to the target is used for quantification. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. |

| Preparation Methods | Method | Matrix | Method Descriptions |
| --- | --- | --- | --- |
| NaOH leach for CN in Soils | CN-PR | SOIL | In house: APHA 4500 CN. Samples are extracted by end-over-end tumbling with NaOH. |
| pH in soil using a 0.01M CaCl2 extract | EA001-PR | SOIL | In house: Referenced to Rayment and Lyons 4B1, 10 g of soil is mixed with 50 mL of 0.01M CaCl2 and tumbled end over end for 1 hour. pH is measured from the continuous suspension. This method is compliant with NEPM Schedule B(3). |
| Alkaline digestion for Hexavalent Chromium | EG048PR | SOIL | In house: Referenced to USEPA SW846, Method 3060A. |
| Total Fluoride | EK040T-PR | SOIL | In house: Samples are fused with Sodium Carbonate / Potassium Carbonate flux. |
| ASLP for Non & Semivolatile Analytes - Plastic Leaching Vessel | EN60a-P | SOIL | In house QWI-EN/60 referenced to AS4439.3 Preparation of Leachates. |
| Deionised Water Leach - Plastic Leaching Vessel | EN60-DIa-P | SOIL | In house QWI-EN/60 referenced to AS4439.3 Preparation of Leachates |
| 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 - Ultra-trace. | ORG16-UT | 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 - VIC EPA Screen | ORG17-EM | 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. |

| *Preparation Methods* | *Method* | *Matrix* | *Method Descriptions* |
|---|---|---|---|
| QuEChеRS Extraction of Solids | ORG71 | SOIL | In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent. |
| Solid Phase Extraction (SPE) for PFAS in water | ORG72 | SOIL | In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements. |
| Preparation for PFAS in water. | EP231-PR | WATER | Method presumes direct injection without workup. Preparation includes addition of internal standard and surrogate, and filtration prior to analysis. |

ALS Melbourne: 4 Westall Rd, Springvale, VIC 3171 Phone (03) 8549 9600; Facsimile (03) 8549 9601. Email Samples.Melbourne@alsenviro.com

# CHAIN OF CUSTODY DOCUMENTATION

Australian Laboratory Services Pty Ltd

| | |
|---|---|
| CLIENT: Agon Evironmental | SAMPLER: WHO - Agon, TB - Agon |
| ADDRESS / OFFICE: Melbourne | MOBILE 1: +61 400 826 907 (Craig Trimbur) |
| PROJECT MANAGER (PM): Craig Trimbur | MOBILE 2: +61 490 411 004 (David Lawson) |
| PROJECT ID: JC0927 | EMAIL REPORT TO: Labreports.TST@agonenviro.com.au agonenvironmental@esdat.com.au motherhublabresults1@wgtp.com.au |
| SITE: 20220401043619-ALS-13 P.O. NO.: | |
| RESULTS REQUIRED (Date): 5 days QUOTE NO.: ME-150-19 WGTP | EMAIL INVOICE TO: (if different to report) Labreports.TST@agonenviro.com.au agonenvironmental@esdat.com.au |

ANALYSIS REQUIRED including SUITES (note - suite codes must be listed to attract suite prices)

FOR LABORATORY USE ONLY
COOLER SEAL (circle appropriate)
Intact: Yes No N/A
SAMPLE TEMPERATURE
CHILLED: Yes No

COMMENTS / SPECIAL HANDLING / STORAGE OR DIPOSAL:

Notes:

Environmental Division
Melbourne
Work Order Reference
EM2205909

Telephone : + 61-3-8549 9600

SAMPLE INFORMATION (note: S = Soil, W=Water) / CONTAINER INFORMATION

| | ALS ID | SAMPLE ID | MATRIX | DATE | Time | Type / Code | Total bottles | Spoil Sample Prep | P16 plus Cr | PFAS 28 Extended suite | ASLP PFAS - Extended Suite (Lab to determine pH) | DI Leachate PFAS - Extended Suite |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 1 | SX_OB_20220331_08_19_SS_Primary_ALS | S | 31/03/2022 | 08:19 | Bucket | 1 | x | x | x | x | x |
| 9 | 2 | SX_OB_20220331_07_51_SS_Duplicate_ALS | S | 31/03/2022 | 07:51 | Bucket | 1 | x | x | x | x | x |
| 10 | 3 | SX_OB_20220331_21_06_SS_Primary_ALS | S | 31/03/2022 | 21:06 | Bucket | 1 | x | x | x | x | x |
| 11 | 4 | SX_OB_20220401_00_08_SS_Primary_ALS | S | 1/04/2022 | 00:08 | Bucket | 1 | x | x | x | x | x |
| 12 | 5 | SX_OB_20220401_04_16_SS_Primary_ALS | S | 1/04/2022 | 04:16 | Bucket | 1 | x | x | x | x | x |
| | 6 | SX_OB_20220401_04_24_SR_Rinsate_ALS | S | 1/04/2022 | 04:24 | Bottle | 1 | | | x | | |
| | 7 | SX_OB_20220401_04_25_SB_Blank_ALS | S | 1/04/2022 | 04:25 | Bottle | 1 | | | x | | |

Received: 1/4, 13:40 Carrier: Courier
C/note:
Temp: 14.7 °C Seal: Y / N
Ice / Icebricks / NA
Tim

| RELINQUISHED BY: | | RECEIVED BY | | METHOD OF SHIPMENT |
|---|---|---|---|---|
| Name: David Lawson | Date: 1.4.22 | Name: | Date: | Con' Note No: |
| Of: Agon Enviro | Time: 12:00 | Of: | Time: | |
| Name: | Date: | Name: | Date: | Transport Co: |
| Of: | Time: | Of: | Time: | |

***Water Container Codes:*** P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserveed Plastic; AG = Amber Glass Unpreserved; V = VOA Vial HCl Preserved; VS = VOA Vial Sulphuric Preserved; SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass; Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bad for Acid Sulphate Soils; B = Unpreserved Bag.

AUSTRALIAN LABORATORY SERVICES P/L

# CERTIFICATE OF ANALYSIS

| | | | |
|---|---|---|---|
| **Work Order** | : **EM2205909** | Page | : 1 of 17 |
| Client | : **AGON ENVIRONMENTAL PTY LTD** | Laboratory | : Environmental Division Melbourne |
| Contact | : DAVID LAWSON | Contact | : Bronwyn Sheen |
| Address | : D1.1 63-85 TURNER STREET<br>PORT MELBOURNE 3207 | Address | : 4 Westall Rd Springvale VIC Australia 3171 |
| Telephone | : ---- | Telephone | : +6138549 9600 |
| Project | : JC0927 | Date Samples Received | : 01-Apr-2022 13:40 |
| Order number | : ---- | Date Analysis Commenced | : 04-Apr-2022 |
| C-O-C number | : 20220401043619-ALS-13 | Issue Date | : 07-Apr-2022 19:50 |
| Sampler | : TB - Agon, WHO - Agon | | |
| Site | : 20220401043619-ALS-13 | | |
| Quote number | : EN/150/19 -WGTP -Bulk Sample Quote | | |
| No. of samples received | : 12 | | |
| No. of samples analysed | : 12 | | |

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* |
|---|---|---|
| Dilani Fernando | Laboratory Coordinator | Melbourne Inorganics, Springvale, VIC |
| Nancy Wang | 2IC Organic Chemist | Melbourne Inorganics, Springvale, VIC |
| Nancy Wang | 2IC Organic Chemist | Melbourne Organics, Springvale, VIC |
| Xing Lin | Senior Organic Chemist | Melbourne Organics, Springvale, VIC |

## General Comments

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

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

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

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 Contact 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.

- EP231X: Poor matrix spike recovery for sample EM2205488-011 due to sample matrix interference.
- 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.
- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP074-UT: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP074-WF: Where reported, Sum of trichlorobenzenes is the sum of the reported concentrations of 1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene, and 1,3,5-Trichlorobenzene at or above the LOR.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.
- EN60: Where leachable PFAS analysis is requested, centrifugation rather than pressure filtration is used as the default approach for removal of particulates, in line with AS 4439.3.
- EN60-DI: Where leachable PFAS analysis is requested, centrifugation rather than pressure filtration is used as the default approach for removal of particulates, in line with AS 4439.3.

## Analytical Results

| Sub-Matrix: ASLP LEACHATE (Matrix: WATER) | | | Sample ID | SX_OB_20220331_08_19_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS | SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220401_00_08_SS_Primary_ALS | SX_OB_20220401_04_16_SS_Primary_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 31-Mar-2022 08:19 | 31-Mar-2022 07:51 | 31-Mar-2022 21:06 | 01-Apr-2022 00:08 | 01-Apr-2022 04:16 |
| Compound | CAS Number | LOR | Unit | EM2205909-001 | EM2205909-002 | EM2205909-003 | EM2205909-004 | EM2205909-005 |
| | | | | Result | Result | Result | Result | Result |
| **EP231A: Perfluoroalkyl Sulfonic Acids** | | | | | | | | |
| **Perfluorobutane sulfonic acid (PFBS)** | 375-73-5 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluoropentane sulfonic acid (PFPeS)** | 2706-91-4 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorohexane sulfonic acid (PFHxS)** | 355-46-4 | 0.01 | µg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| **Perfluoroheptane sulfonic acid (PFHpS)** | 375-92-8 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorooctane sulfonic acid (PFOS)** | 1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| **Perfluorodecane sulfonic acid (PFDS)** | 335-77-3 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP231B: Perfluoroalkyl Carboxylic Acids** | | | | | | | | |
| **Perfluorobutanoic acid (PFBA)** | 375-22-4 | 0.1 | µg/L | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| **Perfluoropentanoic acid (PFPeA)** | 2706-90-3 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorohexanoic acid (PFHxA)** | 307-24-4 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluoroheptanoic acid (PFHpA)** | 375-85-9 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorooctanoic acid (PFOA)** | 335-67-1 | 0.01 | µg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| **Perfluorononanoic acid (PFNA)** | 375-95-1 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorodecanoic acid (PFDA)** | 335-76-2 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluoroundecanoic acid (PFUnDA)** | 2058-94-8 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorododecanoic acid (PFDoDA)** | 307-55-1 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorotridecanoic acid (PFTrDA)** | 72629-94-8 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorotetradecanoic acid (PFTeDA)** | 376-06-7 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| **EP231C: Perfluoroalkyl Sulfonamides** | | | | | | | | |
| **Perfluorooctane sulfonamide (FOSA)** | 754-91-6 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| **N-Methyl perfluorooctane sulfonamide (MeFOSA)** | 31506-32-8 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |

## Analytical Results

| Sub-Matrix: ASLP LEACHATE (Matrix: WATER) | | | Sample ID | SX_OB_20220331_08_19_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS | SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220401_00_08_SS_Primary_ALS | SX_OB_20220401_04_16_SS_Primary_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 31-Mar-2022 08:19 | 31-Mar-2022 07:51 | 31-Mar-2022 21:06 | 01-Apr-2022 00:08 | 01-Apr-2022 04:16 |
| Compound | CAS Number | LOR | Unit | EM2205909-001 | EM2205909-002 | EM2205909-003 | EM2205909-004 | EM2205909-005 |
| | | | | Result | Result | Result | Result | Result |
| **EP231C: Perfluoroalkyl Sulfonamides - Continued** | | | | | | | | |
| N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids** | | | | | | | | |
| 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| **EP231P: PFAS Sums** | | | | | | | | |
| Sum of PFAS | ---- | 0.10 | µg/L | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| Sum of PFHxS and PFOS | 355-46-4/1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Sum of PFAS (WA DER List) | ---- | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| **EP231S: PFAS Surrogate** | | | | | | | | |
| 13C4-PFOS | ---- | 0.02 | % | **91.0** | **94.2** | **99.2** | **95.5** | **98.0** |
| 13C8-PFOA | ---- | 0.02 | % | **102** | **102** | **102** | **103** | **105** |

## Analytical Results

| Sub-Matrix: DI WATER LEACHATE (Matrix: WATER) | | | Sample ID | SX_OB_20220331_08_19_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS | SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220401_00_08_SS_Primary_ALS | SX_OB_20220401_04_16_SS_Primary_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 31-Mar-2022 09:18 | 31-Mar-2022 07:51 | 31-Mar-2022 21:06 | 01-Apr-2022 00:08 | 01-Apr-2022 04:16 |
| Compound | CAS Number | LOR | Unit | EM2205909-008 | EM2205909-009 | EM2205909-010 | EM2205909-011 | EM2205909-012 |
| | | | | Result | Result | Result | Result | Result |
| **EP231A: Perfluoroalkyl Sulfonic Acids** | | | | | | | | |
| **Perfluorobutane sulfonic acid (PFBS)** | 375-73-5 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluoropentane sulfonic acid (PFPeS)** | 2706-91-4 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorohexane sulfonic acid (PFHxS)** | 355-46-4 | 0.01 | µg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| **Perfluoroheptane sulfonic acid (PFHpS)** | 375-92-8 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorooctane sulfonic acid (PFOS)** | 1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| **Perfluorodecane sulfonic acid (PFDS)** | 335-77-3 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP231B: Perfluoroalkyl Carboxylic Acids** | | | | | | | | |
| **Perfluorobutanoic acid (PFBA)** | 375-22-4 | 0.1 | µg/L | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| **Perfluoropentanoic acid (PFPeA)** | 2706-90-3 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorohexanoic acid (PFHxA)** | 307-24-4 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluoroheptanoic acid (PFHpA)** | 375-85-9 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorooctanoic acid (PFOA)** | 335-67-1 | 0.01 | µg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| **Perfluorononanoic acid (PFNA)** | 375-95-1 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorodecanoic acid (PFDA)** | 335-76-2 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluoroundecanoic acid (PFUnDA)** | 2058-94-8 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorododecanoic acid (PFDoDA)** | 307-55-1 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorotridecanoic acid (PFTrDA)** | 72629-94-8 | 0.02 | µg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **Perfluorotetradecanoic acid (PFTeDA)** | 376-06-7 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| **EP231C: Perfluoroalkyl Sulfonamides** | | | | | | | | |
| **Perfluorooctane sulfonamide (FOSA)** | 754-91-6 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| **N-Methyl perfluorooctane sulfonamide (MeFOSA)** | 31506-32-8 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |

## Analytical Results

| Sub-Matrix: DI WATER LEACHATE (Matrix: WATER) | | | Sample ID | SX_OB_20220331_08_19_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS | SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220401_00_08_SS_Primary_ALS | SX_OB_20220401_04_16_SS_Primary_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 31-Mar-2022 09:18 | 31-Mar-2022 07:51 | 31-Mar-2022 21:06 | 01-Apr-2022 00:08 | 01-Apr-2022 04:16 |
| Compound | CAS Number | LOR | Unit | EM2205909-008 | EM2205909-009 | EM2205909-010 | EM2205909-011 | EM2205909-012 |
| | | | | Result | Result | Result | Result | Result |
| **EP231C: Perfluoroalkyl Sulfonamides - Continued** | | | | | | | | |
| **N-Ethyl perfluorooctane sulfonamide (EtFOSA)** | 4151-50-2 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| **N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)** | 24448-09-7 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| **N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)** | 1691-99-2 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| **N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)** | 2355-31-9 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| **N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)** | 2991-50-6 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids** | | | | | | | | |
| **4:2 Fluorotelomer sulfonic acid (4:2 FTS)** | 757124-72-4 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| **6:2 Fluorotelomer sulfonic acid (6:2 FTS)** | 27619-97-2 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| **8:2 Fluorotelomer sulfonic acid (8:2 FTS)** | 39108-34-4 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| **10:2 Fluorotelomer sulfonic acid (10:2 FTS)** | 120226-60-0 | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| **EP231P: PFAS Sums** | | | | | | | | |
| **Sum of PFAS** | ---- | 0.10 | µg/L | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| **Sum of PFHxS and PFOS** | 355-46-4/1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| **Sum of PFAS (WA DER List)** | ---- | 0.05 | µg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| **EP231S: PFAS Surrogate** | | | | | | | | |
| **13C4-PFOS** | ---- | 0.02 | % | **92.4** | **94.5** | **88.4** | **90.7** | **92.3** |
| **13C8-PFOA** | ---- | 0.02 | % | **96.5** | **99.5** | **100** | **100** | **101** |

## Analytical Results

| Sub-Matrix: SOIL (Matrix: SOIL) | | | Sample ID | SX_OB_20220331_08_19_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS | SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220401_00_08_SS_Primary_ALS | SX_OB_20220401_04_16_SS_Primary_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 31-Mar-2022 08:19 | 31-Mar-2022 07:51 | 31-Mar-2022 21:06 | 01-Apr-2022 00:08 | 01-Apr-2022 04:16 |
| Compound | CAS Number | LOR | Unit | EM2205909-001 | EM2205909-002 | EM2205909-003 | EM2205909-004 | EM2205909-005 |
| | | | | Result | Result | Result | Result | Result |
| **EA001: pH in soil using 0.01M CaCl extract** | | | | | | | | |
| pH (CaCl2) | ---- | 0.1 | pH Unit | **7.6** | **7.7** | **7.6** | **7.7** | **7.6** |
| **EA055: Moisture Content (Dried @ 105-110°C)** | | | | | | | | |
| Moisture Content | ---- | 1.0 | % | **29.6** | **32.7** | **30.5** | **28.7** | **28.8** |
| **EG005(ED093)T: Total Metals by ICP-AES** | | | | | | | | |
| Arsenic | 7440-38-2 | 5 | mg/kg | **30** | **35** | **28** | **41** | **26** |
| Cadmium | 7440-43-9 | 1 | mg/kg | **1** | <1 | <1 | <1 | <1 |
| Chromium | 7440-47-3 | 5 | mg/kg | **103** | **112** | **105** | **105** | **100** |
| Copper | 7440-50-8 | 5 | mg/kg | **57** | **58** | **56** | **55** | **54** |
| Lead | 7439-92-1 | 5 | mg/kg | <5 | <5 | <5 | <5 | <5 |
| Molybdenum | 7439-98-7 | 5 | mg/kg | <5 | <5 | <5 | <5 | <5 |
| Nickel | 7440-02-0 | 5 | mg/kg | **178** | **178** | **171** | **172** | **164** |
| Selenium | 7782-49-2 | 5 | mg/kg | <5 | <5 | <5 | <5 | <5 |
| Silver | 7440-22-4 | 2 | mg/kg | <2 | <2 | <2 | <2 | <2 |
| Tin | 7440-31-5 | 10 | mg/kg | <10 | <10 | <10 | <10 | <10 |
| Zinc | 7440-66-6 | 5 | mg/kg | **98** | **100** | **85** | **91** | **90** |
| **EG035T: Total Recoverable Mercury by FIMS** | | | | | | | | |
| Mercury | 7439-97-6 | 0.1 | mg/kg | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| **EG048: Hexavalent Chromium (Alkaline Digest)** | | | | | | | | |
| Hexavalent Chromium | 18540-29-9 | 1.0 | mg/kg | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| **EK026SF: Total CN by Segmented Flow Analyser** | | | | | | | | |
| Total Cyanide | 57-12-5 | 5 | mg/kg | <5 | <5 | <5 | <5 | <5 |
| **EK040T: Fluoride Total** | | | | | | | | |
| Fluoride | 16984-48-8 | 100 | mg/kg | **240** | **200** | **150** | **160** | **240** |
| **EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)** | | | | | | | | |
| Initial pH | ---- | 0.1 | pH Unit | **9.3** | **9.1** | **9.3** | **9.1** | **9.4** |
| After HCl pH | ---- | 0.1 | pH Unit | **1.4** | **1.4** | **1.5** | **1.5** | **1.3** |
| Extraction Fluid pH | ---- | 0.1 | pH Unit | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** |
| Final pH | ---- | 0.1 | pH Unit | **4.9** | **4.9** | **4.9** | **4.9** | **5.0** |
| **EP066: Polychlorinated Biphenyls (PCB)** | | | | | | | | |
| Total Polychlorinated biphenyls | ---- | 0.1 | mg/kg | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| **EP074A: Monocyclic Aromatic Hydrocarbons** | | | | | | | | |
| Benzene | 71-43-2 | 0.2 | mg/kg | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |

## Analytical Results

| Sub-Matrix: SOIL (Matrix: SOIL) | | | Sample ID | SX_OB_20220331_08_19_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS | SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220401_00_08_SS_Primary_ALS | SX_OB_20220401_04_16_SS_Primary_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 31-Mar-2022 08:19 | 31-Mar-2022 07:51 | 31-Mar-2022 21:06 | 01-Apr-2022 00:08 | 01-Apr-2022 04:16 |
| Compound | CAS Number | LOR | Unit | EM2205909-001 | EM2205909-002 | EM2205909-003 | EM2205909-004 | EM2205909-005 |
| | | | | Result | Result | Result | Result | Result |
| **EP074A: Monocyclic Aromatic Hydrocarbons - Continued** | | | | | | | | |
| Toluene | 108-88-3 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Ethylbenzene | 100-41-4 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| meta- & para-Xylene | 108-38-3 106-42-3 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Styrene | 100-42-5 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| ortho-Xylene | 95-47-6 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| ^ Sum of monocyclic aromatic hydrocarbons | ---- | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| ^ Total Xylenes | ---- | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **EP074H: Naphthalene** | | | | | | | | |
| Naphthalene | 91-20-3 | 1 | mg/kg | <1 | <1 | <1 | <1 | <1 |
| **EP074I: Volatile Halogenated Compounds** | | | | | | | | |
| Vinyl chloride | 75-01-4 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| 1.1-Dichloroethene | 75-35-4 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| Methylene chloride | 75-09-2 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| trans-1.2-Dichloroethene | 156-60-5 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| cis-1.2-Dichloroethene | 156-59-2 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| Chloroform | 67-66-3 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| 1.1.1-Trichloroethane | 71-55-6 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| Carbon Tetrachloride | 56-23-5 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| 1.2-Dichloroethane | 107-06-2 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| Trichloroethene | 79-01-6 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| 1.1.2-Trichloroethane | 79-00-5 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| Tetrachloroethene | 127-18-4 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| 1.1.1.2-Tetrachloroethane | 630-20-6 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| 1.1.2.2-Tetrachloroethane | 79-34-5 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| Hexachlorobutadiene | 87-68-3 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| Chlorobenzene | 108-90-7 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| 1.4-Dichlorobenzene | 106-46-7 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| 1.2-Dichlorobenzene | 95-50-1 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| 1.2.4-Trichlorobenzene | 120-82-1 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| ^ Sum of volatile chlorinated hydrocarbons | ---- | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| ^ Sum of other chlorinated hydrocarbons | ---- | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| **EP075A: Phenolic Compounds (Halogenated)** | | | | | | | | |

## Analytical Results

| Sub-Matrix: SOIL (Matrix: SOIL) | | | Sample ID | SX_OB_20220331_08_19_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS | SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220401_00_08_SS_Primary_ALS | SX_OB_20220401_04_16_SS_Primary_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 31-Mar-2022 08:19 | 31-Mar-2022 07:51 | 31-Mar-2022 21:06 | 01-Apr-2022 00:08 | 01-Apr-2022 04:16 |
| Compound | CAS Number | LOR | Unit | EM2205909-001 | EM2205909-002 | EM2205909-003 | EM2205909-004 | EM2205909-005 |
| | | | | Result | Result | Result | Result | Result |
| **EP075A: Phenolic Compounds (Halogenated) - Continued** | | | | | | | | |
| **2-Chlorophenol** | 95-57-8 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| **2.4-Dichlorophenol** | 120-83-2 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| **2.6-Dichlorophenol** | 87-65-0 | 0.50 | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| **4-Chloro-3-methylphenol** | 59-50-7 | 1.00 | mg/kg | <1.00 | <1.00 | <1.00 | <1.00 | <1.00 |
| **2.4.5-Trichlorophenol** | 95-95-4 | 1.00 | mg/kg | <1.00 | <1.00 | <1.00 | <1.00 | <1.00 |
| **2.4.6-Trichlorophenol** | 88-06-2 | 1.00 | mg/kg | <1.00 | <1.00 | <1.00 | <1.00 | <1.00 |
| **2.3.5.6-Tetrachlorophenol** | 935-95-5 | 0.03 | mg/kg | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 |
| **2.3.4.5 & 2.3.4.6-Tetrachlorophenol** | 4901-51-3/58-90-2 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| **Pentachlorophenol** | 87-86-5 | 1.0 | mg/kg | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| ^ **Sum of Phenols (halogenated)** | ---- | 1.00 | mg/kg | <1.00 | <1.00 | <1.00 | <1.00 | <1.00 |
| **EP075A: Phenolic Compounds (Non-halogenated)** | | | | | | | | |
| **Phenol** | 108-95-2 | 1 | mg/kg | <1 | <1 | <1 | <1 | <1 |
| **2-Methylphenol** | 95-48-7 | 1 | mg/kg | <1 | <1 | <1 | <1 | <1 |
| **3- & 4-Methylphenol** | 1319-77-3 | 1 | mg/kg | <1 | <1 | <1 | <1 | <1 |
| **2-Nitrophenol** | 88-75-5 | 1 | mg/kg | <1 | <1 | <1 | <1 | <1 |
| **2.4-Dimethylphenol** | 105-67-9 | 1 | mg/kg | <1 | <1 | <1 | <1 | <1 |
| **2.4-Dinitrophenol** | 51-28-5 | 5 | mg/kg | <5 | <5 | <5 | <5 | <5 |
| **4-Nitrophenol** | 100-02-7 | 5 | mg/kg | <5 | <5 | <5 | <5 | <5 |
| **2-Methyl-4.6-dinitrophenol** | 8071-51-0 | 5 | mg/kg | <5 | <5 | <5 | <5 | <5 |
| **Dinoseb** | 88-85-7 | 20 | mg/kg | <20 | <20 | <20 | <20 | <20 |
| **2-Cyclohexyl-4.6-Dinitrophenol** | 131-89-5 | 20 | mg/kg | <20 | <20 | <20 | <20 | <20 |
| ^ **Sum of Phenols (non-halogenated)** | ---- | 20 | mg/kg | <20 | <20 | <20 | <20 | <20 |
| **EP075B: Polynuclear Aromatic Hydrocarbons** | | | | | | | | |
| **Naphthalene** | 91-20-3 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Acenaphthene** | 83-32-9 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Acenaphthylene** | 208-96-8 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Fluorene** | 86-73-7 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Phenanthrene** | 85-01-8 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Anthracene** | 120-12-7 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Fluoranthene** | 206-44-0 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Pyrene** | 129-00-0 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **Benz(a)anthracene** | 56-55-3 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |

## Analytical Results

| Sub-Matrix: SOIL (Matrix: SOIL) | | | Sample ID | SX_OB_20220331_08_19_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS | SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220401_00_08_SS_Primary_ALS | SX_OB_20220401_04_16_SS_Primary_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 31-Mar-2022 08:19 | 31-Mar-2022 07:51 | 31-Mar-2022 21:06 | 01-Apr-2022 00:08 | 01-Apr-2022 04:16 |
| Compound | CAS Number | LOR | Unit | EM2205909-001 | EM2205909-002 | EM2205909-003 | EM2205909-004 | EM2205909-005 |
| | | | | Result | Result | Result | Result | Result |
| **EP075B: Polynuclear Aromatic Hydrocarbons - Continued** | | | | | | | | |
| Chrysene | 218-01-9 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Benzo(b+j) & Benzo(k)fluoranthene | 205-99-2 207-08-9 | 1.0 | mg/kg | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Benzo(a)pyrene | 50-32-8 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Indeno(1.2.3.cd)pyrene | 193-39-5 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Dibenz(a.h)anthracene | 53-70-3 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Benzo(g.h.i)perylene | 191-24-2 | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| ^ Sum of polycyclic aromatic hydrocarbons | ---- | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| ^ Benzo(a)pyrene TEQ (zero) | ---- | 0.5 | mg/kg | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| ^ Benzo(a)pyrene TEQ (half LOR) | ---- | 0.5 | mg/kg | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** |
| ^ Benzo(a)pyrene TEQ (LOR) | ---- | 0.5 | mg/kg | **1.2** | **1.2** | **1.2** | **1.2** | **1.2** |
| **EP075I: Organochlorine Pesticides** | | | | | | | | |
| alpha-BHC | 319-84-6 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Hexachlorobenzene (HCB) | 118-74-1 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| beta-BHC | 319-85-7 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| gamma-BHC | 58-89-9 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| delta-BHC | 319-86-8 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Heptachlor | 76-44-8 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Aldrin | 309-00-2 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Heptachlor epoxide | 1024-57-3 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| cis-Chlordane | 5103-71-9 | 0.03 | mg/kg | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 |
| trans-Chlordane | 5103-74-2 | 0.03 | mg/kg | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 |
| Endosulfan 1 | 959-98-8 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| 4.4`-DDE | 72-55-9 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Dieldrin | 60-57-1 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Endrin aldehyde | 7421-93-4 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Endrin | 72-20-8 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Endosulfan 2 | 33213-65-9 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| 4.4`-DDD | 72-54-8 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Endosulfan sulfate | 1031-07-8 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| 4.4`-DDT | 50-29-3 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Methoxychlor | 72-43-5 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| ^ Sum of organochlorine pesticides | ---- | 0.10 | mg/kg | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |

## Analytical Results

| Sub-Matrix: SOIL (Matrix: SOIL) | | | Sample ID | SX_OB_20220331_08_19_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS | SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220401_00_08_SS_Primary_ALS | SX_OB_20220401_04_16_SS_Primary_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 31-Mar-2022 08:19 | 31-Mar-2022 07:51 | 31-Mar-2022 21:06 | 01-Apr-2022 00:08 | 01-Apr-2022 04:16 |
| Compound | CAS Number | LOR | Unit | EM2205909-001 | EM2205909-002 | EM2205909-003 | EM2205909-004 | EM2205909-005 |
| | | | | Result | Result | Result | Result | Result |
| **EP075I: Organochlorine Pesticides - Continued** | | | | | | | | |
| ^ **Sum of Aldrin + Dieldrin** | 309-00-2/60-57-1 | 0.30 | mg/kg | <0.30 | <0.30 | <0.30 | <0.30 | <0.30 |
| ^ **Sum of DDD + DDE + DDT** | 72-54-8/72-55-9/50-2 | 0.05 | mg/kg | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| ^ **Chlordane** | 57-74-9 | 0.10 | mg/kg | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| ^ **Sum of other organochlorine pesticides** | ---- | 0.03 | mg/kg | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 |
| **EP080/071: Total Petroleum Hydrocarbons** | | | | | | | | |
| **C6 - C9 Fraction** | ---- | 20 | mg/kg | <20 | <20 | <20 | <20 | <20 |
| **C10 - C14 Fraction** | ---- | 50 | mg/kg | <50 | <50 | <50 | <50 | <50 |
| **C6 - C10 Fraction** | C6_C10 | 20 | mg/kg | <20 | <20 | <20 | <20 | <20 |
| **C15 - C28 Fraction** | ---- | 100 | mg/kg | <100 | <100 | <100 | <100 | <100 |
| **C29 - C36 Fraction** | ---- | 100 | mg/kg | <100 | <100 | <100 | <100 | <100 |
| ^ **C10 - C36 Fraction (sum)** | ---- | 50 | mg/kg | <50 | <50 | <50 | <50 | <50 |
| **EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions** | | | | | | | | |
| **>C10 - C16 Fraction** | ---- | 50 | mg/kg | <50 | <50 | <50 | <50 | <50 |
| **>C16 - C34 Fraction** | ---- | 100 | mg/kg | <100 | <100 | <100 | <100 | <100 |
| **>C34 - C40 Fraction** | ---- | 100 | mg/kg | <100 | <100 | <100 | <100 | <100 |
| ^ **>C10 - C40 Fraction (sum)** | ---- | 50 | mg/kg | <50 | <50 | <50 | <50 | <50 |
| **>C10 - C16 Fraction minus Naphthalene (F2)** | ---- | 50 | mg/kg | <50 | <50 | <50 | <50 | <50 |
| **C6 - C10 Fraction minus BTEX (F1)** | C6_C10-BTEX | 20 | mg/kg | <20 | <20 | <20 | <20 | <20 |
| **EP231A: Perfluoroalkyl Sulfonic Acids** | | | | | | | | |
| **Perfluorobutane sulfonic acid (PFBS)** | 375-73-5 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **Perfluoropentane sulfonic acid (PFPeS)** | 2706-91-4 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **Perfluorohexane sulfonic acid (PFHxS)** | 355-46-4 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **Perfluoroheptane sulfonic acid (PFHpS)** | 375-92-8 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **Perfluorooctane sulfonic acid (PFOS)** | 1763-23-1 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **Perfluorodecane sulfonic acid (PFDS)** | 335-77-3 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |

## Analytical Results

| Sub-Matrix: SOIL (Matrix: SOIL) | | | Sample ID | SX_OB_20220331_08_19_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS | SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220401_00_08_SS_Primary_ALS | SX_OB_20220401_04_16_SS_Primary_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 31-Mar-2022 08:19 | 31-Mar-2022 07:51 | 31-Mar-2022 21:06 | 01-Apr-2022 00:08 | 01-Apr-2022 04:16 |
| Compound | CAS Number | LOR | Unit | EM2205909-001 | EM2205909-002 | EM2205909-003 | EM2205909-004 | EM2205909-005 |
| | | | | Result | Result | Result | Result | Result |
| **EP231B: Perfluoroalkyl Carboxylic Acids** | | | | | | | | |
| Perfluorobutanoic acid (PFBA) | 375-22-4 | 5 | µg/kg | <5 | <5 | <5 | <5 | <5 |
| Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Perfluorohexanoic acid (PFHxA) | 307-24-4 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Perfluorooctanoic acid (PFOA) | 335-67-1 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Perfluorononanoic acid (PFNA) | 375-95-1 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Perfluorodecanoic acid (PFDA) | 335-76-2 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **EP231C: Perfluoroalkyl Sulfonamides** | | | | | | | | |
| Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 10.0 | µg/kg | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 |
| N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 10.0 | µg/kg | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids** | | | | | | | | |

## *Analytical Results*

| Sub-Matrix: SOIL (Matrix: SOIL) | | | Sample ID | SX_OB_20220331_08_19_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS | SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220401_00_08_SS_Primary_ALS | SX_OB_20220401_04_16_SS_Primary_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 31-Mar-2022 08:19 | 31-Mar-2022 07:51 | 31-Mar-2022 21:06 | 01-Apr-2022 00:08 | 01-Apr-2022 04:16 |
| Compound | CAS Number | LOR | Unit | EM2205909-001 | EM2205909-002 | EM2205909-003 | EM2205909-004 | EM2205909-005 |
| | | | | Result | Result | Result | Result | Result |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued** | | | | | | | | |
| **4:2 Fluorotelomer sulfonic acid (4:2 FTS)** | 757124-72-4 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **6:2 Fluorotelomer sulfonic acid (6:2 FTS)** | 27619-97-2 | 10.0 | µg/kg | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 |
| **8:2 Fluorotelomer sulfonic acid (8:2 FTS)** | 39108-34-4 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **10:2 Fluorotelomer sulfonic acid (10:2 FTS)** | 120226-60-0 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **EP231P: PFAS Sums** | | | | | | | | |
| **Sum of PFAS** | ---- | 50.0 | µg/kg | <50.0 | <50.0 | <50.0 | <50.0 | <50.0 |
| **Sum of PFHxS and PFOS** | 355-46-4/1763-23-1 | 5.0 | µg/kg | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| **Sum of PFAS (WA DER List)** | ---- | 10.0 | µg/kg | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 |
| **EP066S: PCB Surrogate** | | | | | | | | |
| **Decachlorobiphenyl** | 2051-24-3 | 0.1 | % | **121** | **112** | **116** | **109** | **116** |
| **EP074S: VOC Surrogates (Ultra-Trace)** | | | | | | | | |
| **1.2-Dichloroethane-D4** | 17060-07-0 | 0.1 | % | **81.5** | **89.1** | **90.8** | **90.5** | **84.2** |
| **Toluene-D8** | 2037-26-5 | 0.1 | % | **82.7** | **92.8** | **93.1** | **93.3** | **85.9** |
| **4-Bromofluorobenzene** | 460-00-4 | 0.1 | % | **99.0** | **104** | **106** | **106** | **97.6** |
| **EP075S: Acid Extractable Surrogates (Waste Classification)** | | | | | | | | |
| **Phenol-d6** | 13127-88-3 | 0.025 | % | **107** | **96.3** | **93.8** | **95.9** | **96.5** |
| **2-Chlorophenol-D4** | 93951-73-6 | 0.025 | % | **102** | **91.7** | **90.2** | **91.9** | **92.5** |
| **2.4.6-Tribromophenol** | 118-79-6 | 0.025 | % | **95.2** | **82.7** | **86.8** | **88.4** | **84.7** |
| **EP075T: Base/Neutral Extractable Surrogates (Waste Classification)** | | | | | | | | |
| **Nitrobenzene-D5** | 4165-60-0 | 0.025 | % | **106** | **94.6** | **93.6** | **95.4** | **96.0** |
| **1.2-Dichlorobenzene-D4** | 2199-69-1 | 0.025 | % | **102** | **83.7** | **86.7** | **86.5** | **87.9** |
| **2-Fluorobiphenyl** | 321-60-8 | 0.025 | % | **110** | **93.7** | **97.6** | **94.4** | **100.0** |
| **Anthracene-d10** | 1719-06-8 | 0.025 | % | **115** | **99.4** | **102** | **99.2** | **104** |
| **4-Terphenyl-d14** | 1718-51-0 | 0.025 | % | **102** | **86.2** | **89.3** | **88.0** | **93.0** |
| **EP231S: PFAS Surrogate** | | | | | | | | |
| **13C4-PFOS** | ---- | 0.0002 | % | **99.2** | **94.8** | **104** | **101** | **94.8** |
| **13C8-PFOA** | ---- | 0.0002 | % | **105** | **95.9** | **111** | **108** | **105** |

## Analytical Results

| Sub-Matrix: SOIL (Matrix: SOIL) | | | Sample ID | SX_OB_20220331_08_19_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS | SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220401_00_08_SS_Primary_ALS | SX_OB_20220401_04_16_SS_Primary_ALS |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 31-Mar-2022 09:18 | 31-Mar-2022 07:51 | 31-Mar-2022 21:06 | 01-Apr-2022 00:08 | 01-Apr-2022 04:16 |
| Compound | CAS Number | LOR | Unit | EM2205909-008 | EM2205909-009 | EM2205909-010 | EM2205909-011 | EM2205909-012 |
| | | | | Result | Result | Result | Result | Result |
| **EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)** | | | | | | | | |
| **Final pH** | ---- | 0.1 | pH Unit | **8.2** | **9.2** | **9.1** | **9.8** | **9.7** |

## Analytical Results

| Sub-Matrix: WATER (Matrix: WATER) | | | Sample ID | SX_OB_20220401_04_24_SR_Rinsate_ALS | SX_OB_20220401_04_25_SB_Blank_ALS | ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 04:24 | 01-Apr-2022 04:25 | ---- | ---- | ---- |
| Compound | CAS Number | LOR | Unit | EM2205909-006 | EM2205909-007 | -------- | -------- | -------- |
| | | | | Result | Result | ---- | ---- | ---- |
| **EP231A: Perfluoroalkyl Sulfonic Acids** | | | | | | | | |
| **Perfluorobutane sulfonic acid (PFBS)** | 375-73-5 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **Perfluoropentane sulfonic acid (PFPeS)** | 2706-91-4 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **Perfluorohexane sulfonic acid (PFHxS)** | 355-46-4 | 0.01 | µg/L | <0.01 | <0.01 | ---- | ---- | ---- |
| **Perfluoroheptane sulfonic acid (PFHpS)** | 375-92-8 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **Perfluorooctane sulfonic acid (PFOS)** | 1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | ---- | ---- | ---- |
| **Perfluorodecane sulfonic acid (PFDS)** | 335-77-3 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **EP231B: Perfluoroalkyl Carboxylic Acids** | | | | | | | | |
| **Perfluorobutanoic acid (PFBA)** | 375-22-4 | 0.1 | µg/L | <0.1 | <0.1 | ---- | ---- | ---- |
| **Perfluoropentanoic acid (PFPeA)** | 2706-90-3 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **Perfluorohexanoic acid (PFHxA)** | 307-24-4 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **Perfluoroheptanoic acid (PFHpA)** | 375-85-9 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **Perfluorooctanoic acid (PFOA)** | 335-67-1 | 0.01 | µg/L | <0.01 | <0.01 | ---- | ---- | ---- |
| **Perfluorononanoic acid (PFNA)** | 375-95-1 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **Perfluorodecanoic acid (PFDA)** | 335-76-2 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **Perfluoroundecanoic acid (PFUnDA)** | 2058-94-8 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **Perfluorododecanoic acid (PFDoDA)** | 307-55-1 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **Perfluorotridecanoic acid (PFTrDA)** | 72629-94-8 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **Perfluorotetradecanoic acid (PFTeDA)** | 376-06-7 | 0.05 | µg/L | <0.05 | <0.05 | ---- | ---- | ---- |
| **EP231C: Perfluoroalkyl Sulfonamides** | | | | | | | | |
| **Perfluorooctane sulfonamide (FOSA)** | 754-91-6 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **N-Methyl perfluorooctane sulfonamide (MeFOSA)** | 31506-32-8 | 0.05 | µg/L | <0.05 | <0.05 | ---- | ---- | ---- |
| **N-Ethyl perfluorooctane sulfonamide (EtFOSA)** | 4151-50-2 | 0.05 | µg/L | <0.05 | <0.05 | ---- | ---- | ---- |

## Analytical Results

| Sub-Matrix: WATER (Matrix: WATER) | | | Sample ID | SX_OB_20220401_04_24_SR_Rinsate_ALS | SX_OB_20220401_04_25_SB_Blank_ALS | ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Apr-2022 04:24 | 01-Apr-2022 04:25 | ---- | ---- | ---- |
| Compound | CAS Number | LOR | Unit | EM2205909-006 | EM2205909-007 | -------- | -------- | -------- |
| | | | | Result | Result | ---- | ---- | ---- |
| **EP231C: Perfluoroalkyl Sulfonamides - Continued** | | | | | | | | |
| N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.05 | µg/L | <0.05 | <0.05 | ---- | ---- | ---- |
| N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.05 | µg/L | <0.05 | <0.05 | ---- | ---- | ---- |
| N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.02 | µg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids** | | | | | | | | |
| 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.05 | µg/L | <0.05 | <0.05 | ---- | ---- | ---- |
| 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.05 | µg/L | <0.05 | <0.05 | ---- | ---- | ---- |
| 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.05 | µg/L | <0.05 | <0.05 | ---- | ---- | ---- |
| 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.05 | µg/L | <0.05 | <0.05 | ---- | ---- | ---- |
| **EP231P: PFAS Sums** | | | | | | | | |
| Sum of PFAS | ---- | 0.01 | µg/L | <0.01 | <0.01 | ---- | ---- | ---- |
| Sum of PFHxS and PFOS | 355-46-4/1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | ---- | ---- | ---- |
| Sum of PFAS (WA DER List) | ---- | 0.01 | µg/L | <0.01 | <0.01 | ---- | ---- | ---- |
| **EP231S: PFAS Surrogate** | | | | | | | | |
| 13C4-PFOS | ---- | 0.02 | % | **101** | **104** | ---- | ---- | ---- |
| 13C8-PFOA | ---- | 0.02 | % | **105** | **111** | ---- | ---- | ---- |

## Surrogate Control Limits

Sub-Matrix: **ASLP LEACHATE**

| Compound | CAS Number | Recovery Limits (%) Low | High |
|---|---|---|---|
| **EP231S: PFAS Surrogate** | | | |
| **13C4-PFOS** | ---- | 65 | 140 |
| **13C8-PFOA** | ---- | 71 | 133 |

Sub-Matrix: **DI WATER LEACHATE**

| Compound | CAS Number | Recovery Limits (%) Low | High |
|---|---|---|---|
| **EP231S: PFAS Surrogate** | | | |
| **13C4-PFOS** | ---- | 65 | 140 |
| **13C8-PFOA** | ---- | 71 | 133 |

Sub-Matrix: **SOIL**

| Compound | CAS Number | Recovery Limits (%) Low | High |
|---|---|---|---|
| **EP066S: PCB Surrogate** | | | |
| **Decachlorobiphenyl** | 2051-24-3 | 41 | 122 |
| **EP074S: VOC Surrogates (Ultra-Trace)** | | | |
| **1.2-Dichloroethane-D4** | 17060-07-0 | 59 | 119 |
| **Toluene-D8** | 2037-26-5 | 55 | 117 |
| **4-Bromofluorobenzene** | 460-00-4 | 59 | 123 |
| **EP075S: Acid Extractable Surrogates (Waste Classification)** | | | |
| **Phenol-d6** | 13127-88-3 | 63 | 134 |
| **2-Chlorophenol-D4** | 93951-73-6 | 60 | 125 |
| **2.4.6-Tribromophenol** | 118-79-6 | 54 | 129 |
| **EP075T: Base/Neutral Extractable Surrogates (Waste Classification)** | | | |
| **Nitrobenzene-D5** | 4165-60-0 | 63 | 131 |
| **1.2-Dichlorobenzene-D4** | 2199-69-1 | 61 | 124 |
| **2-Fluorobiphenyl** | 321-60-8 | 69 | 131 |
| **Anthracene-d10** | 1719-06-8 | 70 | 133 |
| **4-Terphenyl-d14** | 1718-51-0 | 59 | 141 |
| **EP231S: PFAS Surrogate** | | | |
| **13C4-PFOS** | ---- | 68 | 136 |
| **13C8-PFOA** | ---- | 69 | 133 |

Sub-Matrix: **WATER**

| Compound | CAS Number | Recovery Limits (%) Low | High |
|---|---|---|---|
| **EP231S: PFAS Surrogate** | | | |
| **13C4-PFOS** | ---- | 65 | 140 |
| **13C8-PFOA** | ---- | 71 | 133 |

# QUALITY CONTROL REPORT

| | | | |
|---|---|---|---|
| **Work Order** | : **EM2205909** | Page | : 1 of 30 |
| Client | : **AGON ENVIRONMENTAL PTY LTD** | Laboratory | : Environmental Division Melbourne |
| Contact | : DAVID LAWSON | Contact | : Bronwyn Sheen |
| Address | : D1.1 63-85 TURNER STREET<br>PORT MELBOURNE 3207 | Address | : 4 Westall Rd Springvale VIC Australia 3171 |
| Telephone | : ---- | Telephone | : +6138549 9600 |
| Project | : JC0927 | Date Samples Received | : 01-Apr-2022 |
| Order number | : ---- | Date Analysis Commenced | : 04-Apr-2022 |
| C-O-C number | : 20220401043619-ALS-13 | Issue Date | : 07-Apr-2022 |
| Sampler | : TB - Agon, WHO - Agon | | |
| Site | : 20220401043619-ALS-13 | | |
| Quote number | : EN/150/19 -WGTP -Bulk Sample Quote | | |
| No. of samples received | : 12 | | |
| No. of samples analysed | : 12 | | |

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* |
|---|---|---|
| Dilani Fernando | Laboratory Coordinator | Melbourne Inorganics, Springvale, VIC |
| Nancy Wang | 2IC Organic Chemist | Melbourne Inorganics, Springvale, VIC |
| Nancy Wang | 2IC Organic Chemist | Melbourne Organics, Springvale, VIC |
| Xing Lin | Senior Organic Chemist | Melbourne Organics, Springvale, VIC |

## General Comments

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

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

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

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

## Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; 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: 4267605)** | | | | | | | | | |
| EM2205527-001 | Anonymous | EG005T: Cadmium | 7440-43-9 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EG005T: Chromium | 7440-47-3 | 2 | mg/kg | 53 | 50 | 7.4 | 0% - 20% |
| | | EG005T: Molybdenum | 7439-98-7 | 2 | mg/kg | <2 | <2 | 0.0 | No Limit |
| | | EG005T: Nickel | 7440-02-0 | 2 | mg/kg | 63 | 54 | 16.0 | 0% - 20% |
| | | EG005T: Silver | 7440-22-4 | 2 | mg/kg | <2 | <2 | 0.0 | No Limit |
| | | EG005T: Arsenic | 7440-38-2 | 5 | mg/kg | 7 | 6 | 0.0 | No Limit |
| | | EG005T: Copper | 7440-50-8 | 5 | mg/kg | 25 | 21 | 18.5 | No Limit |
| | | EG005T: Lead | 7439-92-1 | 5 | mg/kg | 8 | 7 | 0.0 | No Limit |
| | | EG005T: Selenium | 7782-49-2 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EG005T: Tin | 7440-31-5 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EG005T: Zinc | 7440-66-6 | 5 | mg/kg | 54 | 46 | 14.5 | 0% - 50% |
| EM2205880-007 | Anonymous | EG005T: Cadmium | 7440-43-9 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EG005T: Chromium | 7440-47-3 | 2 | mg/kg | 6 | 6 | 0.0 | No Limit |
| | | EG005T: Molybdenum | 7439-98-7 | 2 | mg/kg | <2 | <2 | 0.0 | No Limit |
| | | EG005T: Nickel | 7440-02-0 | 2 | mg/kg | 2 | 2 | 0.0 | No Limit |
| | | EG005T: Silver | 7440-22-4 | 2 | mg/kg | <2 | <2 | 0.0 | No Limit |
| | | EG005T: Arsenic | 7440-38-2 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EG005T: Copper | 7440-50-8 | 5 | mg/kg | 20 | 20 | 0.0 | No Limit |
| | | EG005T: Lead | 7439-92-1 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EG005T: Selenium | 7782-49-2 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EG005T: Tin | 7440-31-5 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EG005T: Zinc | 7440-66-6 | 5 | mg/kg | 37 | 38 | 0.0 | No Limit |
| **EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4270080)** | | | | | | | | | |
| EM2205608-001 | Anonymous | EA001: pH (CaCl2) | ---- | 0.1 | pH Unit | 7.4 | 7.5 | 1.5 | 0% - 20% |

Sub-Matrix: **SOIL**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
|---|---|---|---|---|---|---|---|---|---|
| **EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4270080) - continued** | | | | | | | | | |
| EM2205885-001 | Anonymous | EA001: pH (CaCl2) | ---- | 0.1 | pH Unit | 5.2 | 5.1 | 0.0 | 0% - 20% |
| **EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4267945)** | | | | | | | | | |
| EM2205909-001 | SX_OB_20220331_08_19_ SS_Primary_ALS | EA055: Moisture Content | ---- | 0.1 | % | 29.6 | 31.6 | 6.6 | 0% - 20% |
| **EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4267606)** | | | | | | | | | |
| EM2205527-001 | Anonymous | EG035T: Mercury | 7439-97-6 | 0.1 | mg/kg | <0.1 | <0.1 | 0.0 | No Limit |
| EM2205880-007 | Anonymous | EG035T: Mercury | 7439-97-6 | 0.1 | mg/kg | <0.1 | <0.1 | 0.0 | No Limit |
| **EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 4268769)** | | | | | | | | | |
| EM2205598-001 | Anonymous | EG048G: Hexavalent Chromium | 18540-29-9 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| EM2205711-004 | Anonymous | EG048G: Hexavalent Chromium | 18540-29-9 | 0.5 | mg/kg | <1.0 | 1.0 | 0.0 | No Limit |
| **EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 4268770)** | | | | | | | | | |
| EM2205909-004 | SX_OB_20220401_00_08_ SS_Primary_ALS | EG048G: Hexavalent Chromium | 18540-29-9 | 0.5 | mg/kg | <1.0 | <1.0 | 0.0 | No Limit |
| EM2205943-003 | Anonymous | EG048G: Hexavalent Chromium | 18540-29-9 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| **EK026SF: Total CN by Segmented Flow Analyser (QC Lot: 4268748)** | | | | | | | | | |
| EM2205874-063 | Anonymous | EK026SF: Total Cyanide | 57-12-5 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| EM2205885-002 | Anonymous | EK026SF: Total Cyanide | 57-12-5 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| **EK040T: Fluoride Total (QC Lot: 4268755)** | | | | | | | | | |
| EM2205711-001 | Anonymous | EK040T: Fluoride | 16984-48-8 | 40 | mg/kg | 260 | 160 | 45.6 | No Limit |
| EM2205874-060 | Anonymous | EK040T: Fluoride | 16984-48-8 | 40 | mg/kg | 120 | 170 | 34.0 | No Limit |
| **EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4266808)** | | | | | | | | | |
| EM2205896-003 | Anonymous | EP066-EM: Total Polychlorinated biphenyls | ---- | 0.1 | mg/kg | <0.1 | <0.1 | 0.0 | No Limit |
| EM2205917-006 | Anonymous | EP066-EM: Total Polychlorinated biphenyls | ---- | 0.1 | mg/kg | <0.1 | <0.1 | 0.0 | No Limit |
| **EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 4264449)** | | | | | | | | | |
| EM2205909-001 | SX_OB_20220331_08_19_ SS_Primary_ALS | EP074-UT: Benzene | 71-43-2 | 0.2 | mg/kg | <0.2 | <0.2 | 0.0 | No Limit |
| | | EP074-UT: Toluene | 108-88-3 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP074-UT: Ethylbenzene | 100-41-4 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP074-UT: meta- & para-Xylene | 108-38-3 106-42-3 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP074-UT: Styrene | 100-42-5 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP074-UT: ortho-Xylene | 95-47-6 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| **EP074H: Naphthalene (QC Lot: 4264449)** | | | | | | | | | |
| EM2205909-001 | SX_OB_20220331_08_19_ SS_Primary_ALS | EP074-UT: Naphthalene | 91-20-3 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| **EP074I: Volatile Halogenated Compounds (QC Lot: 4264449)** | | | | | | | | | |
| EM2205909-001 | SX_OB_20220331_08_19_ SS_Primary_ALS | EP074-UT: 1.1-Dichloroethene | 75-35-4 | 0.01 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: cis-1.2-Dichloroethene | 156-59-2 | 0.01 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |

Sub-Matrix: **SOIL**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Laboratory Duplicate (DUP) Report | | | | | |
| **EP074I: Volatile Halogenated Compounds (QC Lot: 4264449) - continued** | | | | | | | | | |
| EM2205909-001 | SX_OB_20220331_08_19_ SS_Primary_ALS | EP074-UT: 1.1.1-Trichloroethane | 71-55-6 | 0.01 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: Carbon Tetrachloride | 56-23-5 | 0.01 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: 1.1.1.2-Tetrachloroethane | 630-20-6 | 0.01 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: 1.2.4-Trichlorobenzene | 120-82-1 | 0.01 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: Vinyl chloride | 75-01-4 | 0.02 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: trans-1.2-Dichloroethene | 156-60-5 | 0.02 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: Chloroform | 67-66-3 | 0.02 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: 1.2-Dichloroethane | 107-06-2 | 0.02 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: Trichloroethene | 79-01-6 | 0.02 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: Tetrachloroethene | 127-18-4 | 0.02 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: 1.1.2.2-Tetrachloroethane | 79-34-5 | 0.02 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: Hexachlorobutadiene | 87-68-3 | 0.02 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: Chlorobenzene | 108-90-7 | 0.02 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: 1.4-Dichlorobenzene | 106-46-7 | 0.02 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: 1.2-Dichlorobenzene | 95-50-1 | 0.02 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: 1.1.2-Trichloroethane | 79-00-5 | 0.04 | mg/kg | <0.50 | <0.50 | 0.0 | No Limit |
| | | EP074-UT: Methylene chloride | 75-09-2 | 0.4 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| **EP075A: Phenolic Compounds (Halogenated) (QC Lot: 4266805)** | | | | | | | | | |
| EM2205896-003 | Anonymous | EP075-EM: 2-Chlorophenol | 95-57-8 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: 2.4-Dichlorophenol | 120-83-2 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: 2.6-Dichlorophenol | 87-65-0 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: 4-Chloro-3-methylphenol | 59-50-7 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: 2.3.5.6-Tetrachlorophenol | 935-95-5 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: 2.4.5-Trichlorophenol | 95-95-4 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: 2.4.6-Trichlorophenol | 88-06-2 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: 2.3.4.5 & 2.3.4.6-Tetrachlorophenol | 4901-51-3/58-9 0-2 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: Pentachlorophenol | 87-86-5 | 0.2 | mg/kg | <0.2 | <0.2 | 0.0 | No Limit |
| EM2205917-006 | Anonymous | EP075-EM: 2-Chlorophenol | 95-57-8 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: 2.4-Dichlorophenol | 120-83-2 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: 2.6-Dichlorophenol | 87-65-0 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: 4-Chloro-3-methylphenol | 59-50-7 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: 2.3.5.6-Tetrachlorophenol | 935-95-5 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: 2.4.5-Trichlorophenol | 95-95-4 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: 2.4.6-Trichlorophenol | 88-06-2 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: 2.3.4.5 & 2.3.4.6-Tetrachlorophenol | 4901-51-3/58-9 0-2 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: Pentachlorophenol | 87-86-5 | 0.2 | mg/kg | <0.2 | <0.2 | 0.0 | No Limit |
| **EP075A: Phenolic Compounds (Non-halogenated) (QC Lot: 4266805)** | | | | | | | | | |

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 (%) |
|---|---|---|---|---|---|---|---|---|---|
| **EP075A: Phenolic Compounds (Non-halogenated) (QC Lot: 4266805) - continued** | | | | | | | | | |
| EM2205896-003 | Anonymous | EP075-EM: Phenol | 108-95-2 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EP075-EM: 2-Methylphenol | 95-48-7 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EP075-EM: 3- & 4-Methylphenol | 1319-77-3 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EP075-EM: 2-Nitrophenol | 88-75-5 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EP075-EM: 2.4-Dimethylphenol | 105-67-9 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EP075-EM: 2.4-Dinitrophenol | 51-28-5 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EP075-EM: 4-Nitrophenol | 100-02-7 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EP075-EM: 2-Methyl-4.6-dinitrophenol | 8071-51-0 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EP075-EM: Dinoseb | 88-85-7 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EP075-EM: 2-Cyclohexyl-4.6-Dinitrophenol | 131-89-5 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| EM2205917-006 | Anonymous | EP075-EM: Phenol | 108-95-2 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EP075-EM: 2-Methylphenol | 95-48-7 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EP075-EM: 3- & 4-Methylphenol | 1319-77-3 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EP075-EM: 2-Nitrophenol | 88-75-5 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EP075-EM: 2.4-Dimethylphenol | 105-67-9 | 1 | mg/kg | <1 | <1 | 0.0 | No Limit |
| | | EP075-EM: 2.4-Dinitrophenol | 51-28-5 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EP075-EM: 4-Nitrophenol | 100-02-7 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EP075-EM: 2-Methyl-4.6-dinitrophenol | 8071-51-0 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EP075-EM: Dinoseb | 88-85-7 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| | | EP075-EM: 2-Cyclohexyl-4.6-Dinitrophenol | 131-89-5 | 5 | mg/kg | <5 | <5 | 0.0 | No Limit |
| **EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4266805)** | | | | | | | | | |
| EM2205896-003 | Anonymous | EP075-EM: Naphthalene | 91-20-3 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Acenaphthene | 83-32-9 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Acenaphthylene | 208-96-8 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Fluorene | 86-73-7 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Phenanthrene | 85-01-8 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Anthracene | 120-12-7 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Fluoranthene | 206-44-0 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Pyrene | 129-00-0 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Benz(a)anthracene | 56-55-3 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Chrysene | 218-01-9 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Benzo(a)pyrene | 50-32-8 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Indeno(1.2.3.cd)pyrene | 193-39-5 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Dibenz(a.h)anthracene | 53-70-3 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Benzo(g.h.i)perylene | 191-24-2 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene | 205-99-2<br>207-08-9 | 1 | mg/kg | <1.0 | <1.0 | 0.0 | No Limit |
| EM2205917-006 | Anonymous | EP075-EM: Naphthalene | 91-20-3 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Acenaphthene | 83-32-9 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Acenaphthylene | 208-96-8 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |

Sub-Matrix: **SOIL**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Laboratory Duplicate (DUP) Report | | | | | |
| **EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4266805) - continued** | | | | | | | | | |
| EM2205917-006 | Anonymous | EP075-EM: Fluorene | 86-73-7 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Phenanthrene | 85-01-8 | 0.5 | mg/kg | 0.9 | <0.5 | 56.6 | No Limit |
| | | EP075-EM: Anthracene | 120-12-7 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Fluoranthene | 206-44-0 | 0.5 | mg/kg | 1.4 | 0.9 | 40.1 | No Limit |
| | | EP075-EM: Pyrene | 129-00-0 | 0.5 | mg/kg | 1.3 | 0.9 | 34.5 | No Limit |
| | | EP075-EM: Benz(a)anthracene | 56-55-3 | 0.5 | mg/kg | 0.8 | 0.6 | 22.7 | No Limit |
| | | EP075-EM: Chrysene | 218-01-9 | 0.5 | mg/kg | 0.6 | 0.5 | 17.7 | No Limit |
| | | EP075-EM: Benzo(a)pyrene | 50-32-8 | 0.5 | mg/kg | 0.8 | 0.7 | 15.2 | No Limit |
| | | EP075-EM: Indeno(1.2.3.cd)pyrene | 193-39-5 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Dibenz(a.h)anthracene | 53-70-3 | 0.5 | mg/kg | <0.5 | <0.5 | 0.0 | No Limit |
| | | EP075-EM: Benzo(g.h.i)perylene | 191-24-2 | 0.5 | mg/kg | 0.5 | 0.5 | 0.0 | No Limit |
| | | EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene | 205-99-2 207-08-9 | 1 | mg/kg | 1.4 | 1.2 | 14.8 | No Limit |
| **EP075I: Organochlorine Pesticides (QC Lot: 4266805)** | | | | | | | | | |
| EM2205896-003 | Anonymous | EP075-EM: alpha-BHC | 319-84-6 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Hexachlorobenzene (HCB) | 118-74-1 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: beta-BHC | 319-85-7 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: gamma-BHC | 58-89-9 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: delta-BHC | 319-86-8 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Heptachlor | 76-44-8 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Aldrin | 309-00-2 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Heptachlor epoxide | 1024-57-3 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: cis-Chlordane | 5103-71-9 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: trans-Chlordane | 5103-74-2 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Endosulfan 1 | 959-98-8 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Dieldrin | 60-57-1 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Endrin aldehyde | 7421-93-4 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Endrin | 72-20-8 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Endosulfan 2 | 33213-65-9 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Endosulfan sulfate | 1031-07-8 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Methoxychlor | 72-43-5 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: 4.4`-DDE | 72-55-9 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: 4.4`-DDD | 72-54-8 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: 4.4`-DDT | 50-29-3 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| EM2205917-006 | Anonymous | EP075-EM: alpha-BHC | 319-84-6 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Hexachlorobenzene (HCB) | 118-74-1 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: beta-BHC | 319-85-7 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: gamma-BHC | 58-89-9 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: delta-BHC | 319-86-8 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Heptachlor | 76-44-8 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |

Sub-Matrix: **SOIL**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Laboratory Duplicate (DUP) Report | | | | | |
| **EP075I: Organochlorine Pesticides (QC Lot: 4266805) - continued** | | | | | | | | | |
| EM2205917-006 | Anonymous | EP075-EM: Aldrin | 309-00-2 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Heptachlor epoxide | 1024-57-3 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: cis-Chlordane | 5103-71-9 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: trans-Chlordane | 5103-74-2 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Endosulfan 1 | 959-98-8 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Dieldrin | 60-57-1 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Endrin aldehyde | 7421-93-4 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Endrin | 72-20-8 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Endosulfan 2 | 33213-65-9 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Endosulfan sulfate | 1031-07-8 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: Methoxychlor | 72-43-5 | 0.03 | mg/kg | <0.03 | <0.03 | 0.0 | No Limit |
| | | EP075-EM: 4.4`-DDE | 72-55-9 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: 4.4`-DDD | 72-54-8 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP075-EM: 4.4`-DDT | 50-29-3 | 0.05 | mg/kg | <0.05 | <0.05 | 0.0 | No Limit |
| **EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4264449)** | | | | | | | | | |
| EM2205909-001 | SX_OB_20220331_08_19_ SS_Primary_ALS | EP074-UT: C6 - C9 Fraction | ---- | 10 | mg/kg | <20 | <20 | 0.0 | No Limit |
| **EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4266807)** | | | | | | | | | |
| EM2205896-003 | Anonymous | EP071-EM: C15 - C28 Fraction | ---- | 100 | mg/kg | <100 | <100 | 0.0 | No Limit |
| | | EP071-EM: C29 - C36 Fraction | ---- | 100 | mg/kg | <100 | <100 | 0.0 | No Limit |
| | | EP071-EM: C10 - C14 Fraction | ---- | 50 | mg/kg | <50 | <50 | 0.0 | No Limit |
| | | EP071-EM: C10 - C36 Fraction (sum) | ---- | 50 | mg/kg | <50 | <50 | 0.0 | No Limit |
| EM2205917-006 | Anonymous | EP071-EM: C15 - C28 Fraction | ---- | 100 | mg/kg | <100 | <100 | 0.0 | No Limit |
| | | EP071-EM: C29 - C36 Fraction | ---- | 100 | mg/kg | <100 | <100 | 0.0 | No Limit |
| | | EP071-EM: C10 - C14 Fraction | ---- | 50 | mg/kg | <50 | <50 | 0.0 | No Limit |
| | | EP071-EM: C10 - C36 Fraction (sum) | ---- | 50 | mg/kg | <50 | <50 | 0.0 | No Limit |
| **EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4264449)** | | | | | | | | | |
| EM2205909-001 | SX_OB_20220331_08_19_ SS_Primary_ALS | EP074-UT: C6 - C10 Fraction | C6_C10 | 10 | mg/kg | <20 | <20 | 0.0 | No Limit |
| | | EP074-UT: C6 - C10 Fraction minus BTEX (F1) | C6_C10-BTEX | 10 | mg/kg | <20 | <20 | 0.0 | No Limit |
| **EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4266807)** | | | | | | | | | |
| EM2205896-003 | Anonymous | EP071-EM: >C16 - C34 Fraction | ---- | 100 | mg/kg | <100 | <100 | 0.0 | No Limit |
| | | EP071-EM: >C34 - C40 Fraction | ---- | 100 | mg/kg | <100 | <100 | 0.0 | No Limit |
| | | EP071-EM: >C10 - C16 Fraction | ---- | 50 | mg/kg | <50 | <50 | 0.0 | No Limit |
| | | EP071-EM: >C10 - C40 Fraction (sum) | ---- | 50 | mg/kg | <50 | <50 | 0.0 | No Limit |
| EM2205917-006 | Anonymous | EP071-EM: >C16 - C34 Fraction | ---- | 100 | mg/kg | <100 | <100 | 0.0 | No Limit |
| | | EP071-EM: >C34 - C40 Fraction | ---- | 100 | mg/kg | <100 | <100 | 0.0 | No Limit |
| | | EP071-EM: >C10 - C16 Fraction | ---- | 50 | mg/kg | <50 | <50 | 0.0 | No Limit |
| | | EP071-EM: >C10 - C40 Fraction (sum) | ---- | 50 | mg/kg | <50 | <50 | 0.0 | No Limit |

Sub-Matrix: **SOIL**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
| **EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4267229)** | | | | | | | | | |
| EM2205904-002 | Anonymous | EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| EM2205914-004 | Anonymous | EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4267229)** | | | | | | | | | |
| EM2205904-002 | Anonymous | EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.001 | mg/kg | <0.001 | <0.001 | 0.0 | No Limit |
| EM2205914-004 | Anonymous | EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.001 | mg/kg | <0.001 | <0.001 | 0.0 | No Limit |
| **EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4267229)** | | | | | | | | | |
| EM2205904-002 | Anonymous | EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 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 (%) |
| **EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4267229) - continued** | | | | | | | | | |
| EM2205904-002 | Anonymous | EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| EM2205914-004 | Anonymous | EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4267229)** | | | | | | | | | |
| EM2205904-002 | Anonymous | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| EM2205914-004 | Anonymous | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| | | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.0005 | mg/kg | <0.0005 | <0.0005 | 0.0 | No Limit |
| **EP231P: PFAS Sums (QC Lot: 4267229)** | | | | | | | | | |

Sub-Matrix: **SOIL**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Laboratory Duplicate (DUP) Report | | | | | |
| **EP231P: PFAS Sums (QC Lot: 4267229) - continued** | | | | | | | | | |
| EM2205904-002 | Anonymous | EP231X: Sum of PFAS | ---- | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Sum of PFHxS and PFOS | 355-46-4/1763-23-1 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Sum of PFAS (WA DER List) | ---- | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| EM2205914-004 | Anonymous | EP231X: Sum of PFAS | ---- | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Sum of PFHxS and PFOS | 355-46-4/1763-23-1 | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |
| | | EP231X: Sum of PFAS (WA DER List) | ---- | 0.0002 | mg/kg | <0.0002 | <0.0002 | 0.0 | No Limit |

Sub-Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Laboratory Duplicate (DUP) Report | | | | | |
| **EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4268805)** | | | | | | | | | |
| EM2205815-001 | Anonymous | EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| EM2205815-004 | Anonymous | EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.01 | µg/L | 0.76 | 0.76 | 0.0 | 0% - 20% |
| | | EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.01 | µg/L | 1.06 | 1.04 | 2.6 | 0% - 20% |
| | | EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.02 | µg/L | 0.10 | 0.10 | 0.0 | No Limit |
| | | EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.02 | µg/L | 0.06 | 0.06 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.02 | µg/L | 0.17 | 0.17 | 0.0 | No Limit |
| | | EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| **EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4271114)** | | | | | | | | | |
| EM2205488-001 | Anonymous | EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| EM2205489-011 | Anonymous | EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| **EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4271127)** | | | | | | | | | |
| EM2205488-010 | Anonymous | EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |

Sub-Matrix: **WATER**

Laboratory Duplicate (DUP) Report

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
|---|---|---|---|---|---|---|---|---|---|
| **EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4271127) - continued** | | | | | | | | | |
| EM2205488-010 | Anonymous | EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| EM2205649-004 | Anonymous | EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4268805)** | | | | | | | | | |
| EM2205815-001 | Anonymous | EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.02 | µg/L | 0.04 | 0.04 | 0.0 | No Limit |
| | | EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.02 | µg/L | 0.02 | 0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.1 | µg/L | <0.1 | <0.1 | 0.0 | No Limit |
| EM2205815-004 | Anonymous | EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.01 | µg/L | 0.09 | 0.09 | 0.0 | No Limit |
| | | EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.02 | µg/L | 0.03 | 0.03 | 0.0 | No Limit |
| | | EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.02 | µg/L | 0.08 | 0.08 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.02 | µg/L | 0.03 | 0.03 | 0.0 | No Limit |
| | | EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.1 | µg/L | 4.4 | 4.4 | 0.0 | 0% - 20% |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4271114)** | | | | | | | | | |
| EM2205488-001 | Anonymous | EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |

Sub-Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Laboratory Duplicate (DUP) Report | | | | | |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4271114) - continued** | | | | | | | | | |
| EM2205488-001 | Anonymous | EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.1 | µg/L | <0.1 | <0.1 | 0.0 | No Limit |
| EM2205489-011 | Anonymous | EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.1 | µg/L | <0.1 | <0.1 | 0.0 | No Limit |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4271127)** | | | | | | | | | |
| EM2205488-010 | Anonymous | EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.1 | µg/L | <0.1 | <0.1 | 0.0 | No Limit |
| EM2205649-004 | Anonymous | EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.1 | µg/L | <0.1 | <0.1 | 0.0 | No Limit |
| **EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4268805)** | | | | | | | | | |
| EM2205815-001 | Anonymous | EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |

Sub-Matrix: **WATER**

**Laboratory Duplicate (DUP) Report**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
|---|---|---|---|---|---|---|---|---|---|
| **EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4268805) - continued** | | | | | | | | | |
| EM2205815-001 | Anonymous | EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| EM2205815-004 | Anonymous | EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| **EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4271114)** | | | | | | | | | |
| EM2205488-001 | Anonymous | EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| EM2205489-011 | Anonymous | EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |

Sub-Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
|---|---|---|---|---|---|---|---|---|---|
| **EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4271114) - continued** | | | | | | | | | |
| EM2205489-011 | Anonymous | EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| **EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4271127)** | | | | | | | | | |
| EM2205488-010 | Anonymous | EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| EM2205649-004 | Anonymous | EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.02 | µg/L | <0.02 | <0.02 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4268805)** | | | | | | | | | |

Sub-Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Laboratory Duplicate (DUP) Report | | | | | |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4268805) - continued** | | | | | | | | | |
| EM2205815-001 | Anonymous | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| EM2205815-004 | Anonymous | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4271114)** | | | | | | | | | |
| EM2205488-001 | Anonymous | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| EM2205489-011 | Anonymous | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4271127)** | | | | | | | | | |
| EM2205488-010 | Anonymous | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |

Sub-Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | LOR | Unit | Original Result | Duplicate Result | RPD (%) | Acceptable RPD (%) |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4271127) - continued** | | | | | | | | | |
| EM2205488-010 | Anonymous | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| EM2205649-004 | Anonymous | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| | | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.05 | µg/L | <0.05 | <0.05 | 0.0 | No Limit |
| **EP231P: PFAS Sums (QC Lot: 4268805)** | | | | | | | | | |
| EM2205815-001 | Anonymous | EP231X: Sum of PFAS | ---- | 0.01 | µg/L | 0.06 | 0.06 | 0.0 | No Limit |
| | | EP231X: Sum of PFHxS and PFOS | 355-46-4/1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Sum of PFAS (WA DER List) | ---- | 0.01 | µg/L | 0.06 | 0.06 | 0.0 | No Limit |
| EM2205815-004 | Anonymous | EP231X: Sum of PFAS | ---- | 0.01 | µg/L | 6.78 | 6.76 | 0.3 | 0% - 20% |
| | | EP231X: Sum of PFHxS and PFOS | 355-46-4/1763-23-1 | 0.01 | µg/L | 1.82 | 1.80 | 1.1 | 0% - 20% |
| | | EP231X: Sum of PFAS (WA DER List) | ---- | 0.01 | µg/L | 6.55 | 6.53 | 0.3 | 0% - 20% |
| **EP231P: PFAS Sums (QC Lot: 4271114)** | | | | | | | | | |
| EM2205488-001 | Anonymous | EP231X: Sum of PFAS | ---- | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Sum of PFHxS and PFOS | 355-46-4/1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Sum of PFAS (WA DER List) | ---- | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| EM2205489-011 | Anonymous | EP231X: Sum of PFAS | ---- | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Sum of PFHxS and PFOS | 355-46-4/1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Sum of PFAS (WA DER List) | ---- | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| **EP231P: PFAS Sums (QC Lot: 4271127)** | | | | | | | | | |
| EM2205488-010 | Anonymous | EP231X: Sum of PFAS | ---- | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Sum of PFHxS and PFOS | 355-46-4/1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Sum of PFAS (WA DER List) | ---- | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| EM2205649-004 | Anonymous | EP231X: Sum of PFAS | ---- | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Sum of PFHxS and PFOS | 355-46-4/1763-23-1 | 0.01 | µg/L | <0.01 | <0.01 | 0.0 | No Limit |
| | | EP231X: Sum of PFAS (WA DER List) | ---- | 0.01 | µg/L | <0.01 | <0.01 | 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: 4267605)** | | | | | | | | |
| EG005T: Arsenic | 7440-38-2 | 5 | mg/kg | <5 | 123 mg/kg | 104 | 70.0 | 130 |
| EG005T: Cadmium | 7440-43-9 | 1 | mg/kg | <1 | 1.23 mg/kg | 64.2 | 50.0 | 130 |
| EG005T: Chromium | 7440-47-3 | 2 | mg/kg | <2 | 20.2 mg/kg | 101 | 70.0 | 130 |
| EG005T: Copper | 7440-50-8 | 5 | mg/kg | <5 | 55.9 mg/kg | 93.5 | 70.0 | 130 |
| EG005T: Lead | 7439-92-1 | 5 | mg/kg | <5 | 62.4 mg/kg | 92.4 | 70.0 | 130 |
| EG005T: Molybdenum | 7439-98-7 | 2 | mg/kg | <2 | 2.19 mg/kg | 86.6 | 70.0 | 130 |
| EG005T: Nickel | 7440-02-0 | 2 | mg/kg | <2 | 15.4 mg/kg | 94.6 | 70.0 | 130 |
| EG005T: Selenium | 7782-49-2 | 5 | mg/kg | <5 | ---- | ---- | ---- | ---- |
| EG005T: Silver | 7440-22-4 | 2 | mg/kg | <2 | 2.9 mg/kg | 79.5 | 70.0 | 130 |
| EG005T: Tin | 7440-31-5 | 5 | mg/kg | <5 | 5.33 mg/kg | 97.7 | 70.0 | 130 |
| EG005T: Zinc | 7440-66-6 | 5 | mg/kg | <5 | 162 mg/kg | 72.4 | 70.0 | 130 |
| **EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel) (QCLot: 4268507)** | | | | | | | | |
| EN60-DIa-P: Final pH | ---- | 0.1 | pH Unit | 7.2 | ---- | ---- | ---- | ---- |
| **EA001: pH in soil using 0.01M CaCl extract (QCLot: 4270080)** | | | | | | | | |
| EA001: pH (CaCl2) | ---- | ---- | pH Unit | ---- | 4 pH Unit | 101 | 98.8 | 101 |
| | | | | ---- | 7 pH Unit | 100 | 99.3 | 101 |
| **EG035T: Total Recoverable Mercury by FIMS (QCLot: 4267606)** | | | | | | | | |
| EG035T: Mercury | 7439-97-6 | 0.1 | mg/kg | <0.1 | 0.64 mg/kg | 97.6 | 70.0 | 130 |
| **EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4268769)** | | | | | | | | |
| EG048G: Hexavalent Chromium | 18540-29-9 | 0.5 | mg/kg | <0.5 | 20 mg/kg | 70.1 | 70.0 | 130 |
| **EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4268770)** | | | | | | | | |
| EG048G: Hexavalent Chromium | 18540-29-9 | 0.5 | mg/kg | <0.5 | 20 mg/kg | 80.0 | 70.0 | 130 |
| **EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4268748)** | | | | | | | | |
| EK026SF: Total Cyanide | 57-12-5 | 1 | mg/kg | <1 | 20 mg/kg | 90.2 | 70.0 | 130 |
| **EK040T: Fluoride Total (QCLot: 4268755)** | | | | | | | | |
| EK040T: Fluoride | 16984-48-8 | 40 | mg/kg | <40 | 400 mg/kg | 76.6 | 75.2 | 110 |
| **EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4266808)** | | | | | | | | |
| EP066-EM: Total Polychlorinated biphenyls | ---- | 0.1 | mg/kg | <0.1 | 1 mg/kg | 129 | 67.4 | 136 |
| **EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4264449)** | | | | | | | | |
| EP074-UT: Benzene | 71-43-2 | 0.2 | mg/kg | <0.2 | 2.1 mg/kg | 73.3 | 69.2 | 116 |
| EP074-UT: Toluene | 108-88-3 | 0.5 | mg/kg | <0.5 | 2.1 mg/kg | 72.4 | 67.7 | 116 |
| EP074-UT: Ethylbenzene | 100-41-4 | 0.5 | mg/kg | <0.5 | 2.1 mg/kg | 70.3 | 66.6 | 115 |

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 |
| **EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4264449) - continued** | | | | | | | | |
| EP074-UT: meta- & para-Xylene | 108-38-3 106-42-3 | 0.5 | mg/kg | <0.5 | 4.2 mg/kg | 70.3 | 65.2 | 112 |
| EP074-UT: Styrene | 100-42-5 | 0.5 | mg/kg | <0.5 | 2.1 mg/kg | 74.5 | 69.4 | 111 |
| EP074-UT: ortho-Xylene | 95-47-6 | 0.5 | mg/kg | <0.5 | 2.1 mg/kg | 71.1 | 68.4 | 110 |
| **EP074H: Naphthalene (QCLot: 4264449)** | | | | | | | | |
| EP074-UT: Naphthalene | 91-20-3 | 1 | mg/kg | <1 | 0.6 mg/kg | 110 | 72.3 | 114 |
| **EP074I: Volatile Halogenated Compounds (QCLot: 4264449)** | | | | | | | | |
| EP074-UT: Vinyl chloride | 75-01-4 | 0.02 | mg/kg | <0.02 | 0.1 mg/kg | 75.2 | 47.0 | 138 |
| EP074-UT: 1.1-Dichloroethene | 75-35-4 | 0.01 | mg/kg | <0.01 | 0.1 mg/kg | 75.6 | 57.6 | 125 |
| EP074-UT: Methylene chloride | 75-09-2 | 0.4 | mg/kg | <0.4 | 2.1 mg/kg | 74.4 | 72.3 | 115 |
| EP074-UT: trans-1.2-Dichloroethene | 156-60-5 | 0.02 | mg/kg | <0.02 | 0.1 mg/kg | 73.4 | 60.5 | 122 |
| EP074-UT: cis-1.2-Dichloroethene | 156-59-2 | 0.01 | mg/kg | <0.01 | 0.1 mg/kg | 74.8 | 70.3 | 112 |
| EP074-UT: Chloroform | 67-66-3 | 0.02 | mg/kg | <0.02 | 0.1 mg/kg | 76.2 | 66.6 | 115 |
| EP074-UT: 1.1.1-Trichloroethane | 71-55-6 | 0.01 | mg/kg | <0.01 | 0.1 mg/kg | 75.8 | 64.4 | 122 |
| EP074-UT: Carbon Tetrachloride | 56-23-5 | 0.01 | mg/kg | <0.01 | 0.1 mg/kg | 74.4 | 58.4 | 127 |
| EP074-UT: 1.2-Dichloroethane | 107-06-2 | 0.02 | mg/kg | <0.02 | 0.1 mg/kg | 78.9 | 72.9 | 114 |
| EP074-UT: Trichloroethene | 79-01-6 | 0.02 | mg/kg | <0.02 | 0.1 mg/kg | 76.1 | 64.7 | 115 |
| EP074-UT: 1.1.2-Trichloroethane | 79-00-5 | 0.04 | mg/kg | <0.04 | 0.1 mg/kg | 74.2 | 72.6 | 116 |
| EP074-UT: Tetrachloroethene | 127-18-4 | 0.02 | mg/kg | <0.02 | 0.1 mg/kg | 76.2 | 60.0 | 119 |
| EP074-UT: 1.1.1.2-Tetrachloroethane | 630-20-6 | 0.01 | mg/kg | <0.01 | 0.1 mg/kg | 76.8 | 71.8 | 116 |
| EP074-UT: 1.1.2.2-Tetrachloroethane | 79-34-5 | 0.02 | mg/kg | <0.02 | 0.1 mg/kg | 79.6 | 66.1 | 116 |
| EP074-UT: Hexachlorobutadiene | 87-68-3 | 0.02 | mg/kg | <0.02 | 0.1 mg/kg | 64.2 | 39.8 | 128 |
| EP074-UT: Chlorobenzene | 108-90-7 | 0.02 | mg/kg | <0.02 | 0.1 mg/kg | 74.4 | 70.3 | 113 |
| EP074-UT: 1.4-Dichlorobenzene | 106-46-7 | 0.02 | mg/kg | <0.02 | 0.1 mg/kg | 77.0 | 62.6 | 113 |
| EP074-UT: 1.2-Dichlorobenzene | 95-50-1 | 0.02 | mg/kg | <0.02 | 0.1 mg/kg | 78.6 | 70.8 | 110 |
| EP074-UT: 1.2.4-Trichlorobenzene | 120-82-1 | 0.01 | mg/kg | <0.01 | 0.1 mg/kg | 75.0 | 48.4 | 120 |
| **EP075A: Phenolic Compounds (Halogenated) (QCLot: 4266805)** | | | | | | | | |
| EP075-EM: 2-Chlorophenol | 95-57-8 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 104 | 74.5 | 126 |
| EP075-EM: 2.4-Dichlorophenol | 120-83-2 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 97.5 | 72.7 | 126 |
| EP075-EM: 2.6-Dichlorophenol | 87-65-0 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 99.6 | 73.5 | 132 |
| EP075-EM: 4-Chloro-3-methylphenol | 59-50-7 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 96.9 | 72.8 | 128 |
| EP075-EM: 2.4.5-Trichlorophenol | 95-95-4 | 0.05 | mg/kg | <0.05 | 2 mg/kg | 106 | 73.3 | 134 |
| EP075-EM: 2.4.6-Trichlorophenol | 88-06-2 | 0.05 | mg/kg | <0.05 | 2 mg/kg | 97.2 | 72.4 | 128 |
| EP075-EM: 2.3.5.6-Tetrachlorophenol | 935-95-5 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 98.7 | 69.4 | 126 |
| EP075-EM: 2.3.4.5 & 2.3.4.6-Tetrachlorophenol | 4901-51-3/5 8-90-2 | 0.05 | mg/kg | <0.05 | 4 mg/kg | 93.1 | 71.9 | 128 |
| EP075-EM: Pentachlorophenol | 87-86-5 | 0.2 | mg/kg | <0.2 | 4 mg/kg | 92.1 | 54.4 | 135 |
| **EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4266805)** | | | | | | | | |

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 |
|---|---|---|---|---|---|---|---|---|
| **EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4266805) - continued** | | | | | | | | |
| EP075-EM: Phenol | 108-95-2 | 1 | mg/kg | <1 | 2 mg/kg | 99.6 | 71.5 | 130 |
| EP075-EM: 2-Methylphenol | 95-48-7 | 1 | mg/kg | <1 | 2 mg/kg | 101 | 73.4 | 129 |
| EP075-EM: 3- & 4-Methylphenol | 1319-77-3 | 1 | mg/kg | <1 | 4 mg/kg | 98.9 | 74.3 | 129 |
| EP075-EM: 2-Nitrophenol | 88-75-5 | 1 | mg/kg | <1 | 2 mg/kg | 96.6 | 70.9 | 133 |
| EP075-EM: 2.4-Dimethylphenol | 105-67-9 | 1 | mg/kg | <1 | 2 mg/kg | 96.9 | 71.8 | 132 |
| EP075-EM: 2.4-Dinitrophenol | 51-28-5 | 5 | mg/kg | <5 | 10 mg/kg | 89.3 | 41.0 | 156 |
| EP075-EM: 4-Nitrophenol | 100-02-7 | 5 | mg/kg | <5 | 10 mg/kg | 113 | 65.3 | 134 |
| EP075-EM: 2-Methyl-4.6-dinitrophenol | 8071-51-0 | 5 | mg/kg | <5 | 10 mg/kg | 95.2 | 43.6 | 128 |
| EP075-EM: Dinoseb | 88-85-7 | 5 | mg/kg | <5 | 10 mg/kg | 96.0 | 62.0 | 128 |
| EP075-EM: 2-Cyclohexyl-4.6-Dinitrophenol | 131-89-5 | 5 | mg/kg | <5 | 10 mg/kg | 92.4 | 34.5 | 137 |
| **EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4266805)** | | | | | | | | |
| EP075-EM: Naphthalene | 91-20-3 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 99.9 | 73.0 | 131 |
| EP075-EM: Acenaphthene | 83-32-9 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 103 | 76.3 | 130 |
| EP075-EM: Acenaphthylene | 208-96-8 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 101 | 72.0 | 135 |
| EP075-EM: Fluorene | 86-73-7 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 104 | 74.4 | 131 |
| EP075-EM: Phenanthrene | 85-01-8 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 104 | 73.3 | 130 |
| EP075-EM: Anthracene | 120-12-7 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 105 | 78.4 | 127 |
| EP075-EM: Fluoranthene | 206-44-0 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 101 | 75.3 | 132 |
| EP075-EM: Pyrene | 129-00-0 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 102 | 75.4 | 130 |
| EP075-EM: Benz(a)anthracene | 56-55-3 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 107 | 69.6 | 133 |
| EP075-EM: Chrysene | 218-01-9 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 107 | 75.0 | 133 |
| EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene | 205-99-2<br>207-08-9 | 1 | mg/kg | <1.0 | 4 mg/kg | 109 | 75.8 | 133 |
| EP075-EM: Benzo(a)pyrene | 50-32-8 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 108 | 65.1 | 130 |
| EP075-EM: Indeno(1.2.3.cd)pyrene | 193-39-5 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 108 | 72.1 | 134 |
| EP075-EM: Dibenz(a.h)anthracene | 53-70-3 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 107 | 72.9 | 135 |
| EP075-EM: Benzo(g.h.i)perylene | 191-24-2 | 0.5 | mg/kg | <0.5 | 2 mg/kg | 108 | 71.3 | 134 |
| **EP075I: Organochlorine Pesticides (QCLot: 4266805)** | | | | | | | | |
| EP075-EM: alpha-BHC | 319-84-6 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 105 | 71.0 | 129 |
| EP075-EM: Hexachlorobenzene (HCB) | 118-74-1 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 101 | 74.8 | 126 |
| EP075-EM: beta-BHC | 319-85-7 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 101 | 75.7 | 130 |
| EP075-EM: gamma-BHC | 58-89-9 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 103 | 70.8 | 130 |
| EP075-EM: delta-BHC | 319-86-8 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 108 | 76.5 | 134 |
| EP075-EM: Heptachlor | 76-44-8 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 95.1 | 75.5 | 131 |
| EP075-EM: Aldrin | 309-00-2 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 102 | 76.8 | 130 |
| EP075-EM: Heptachlor epoxide | 1024-57-3 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 100 | 73.6 | 130 |
| EP075-EM: cis-Chlordane | 5103-71-9 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 97.9 | 75.0 | 133 |
| EP075-EM: trans-Chlordane | 5103-74-2 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 98.6 | 75.3 | 131 |
| EP075-EM: Endosulfan 1 | 959-98-8 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 104 | 69.4 | 134 |

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 |
|---|---|---|---|---|---|---|---|---|
| **EP075I: Organochlorine Pesticides (QCLot: 4266805) - continued** | | | | | | | | |
| EP075-EM: 4.4`-DDE | 72-55-9 | 0.05 | mg/kg | <0.05 | 2 mg/kg | 102 | 71.0 | 132 |
| EP075-EM: Dieldrin | 60-57-1 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 102 | 78.0 | 133 |
| EP075-EM: Endrin aldehyde | 7421-93-4 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 101 | 69.0 | 143 |
| EP075-EM: Endrin | 72-20-8 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 85.0 | 55.7 | 145 |
| EP075-EM: Endosulfan 2 | 33213-65-9 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 105 | 71.4 | 135 |
| EP075-EM: 4.4`-DDD | 72-54-8 | 0.05 | mg/kg | <0.05 | 2 mg/kg | 103 | 74.8 | 134 |
| EP075-EM: Endosulfan sulfate | 1031-07-8 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 104 | 70.2 | 135 |
| EP075-EM: 4.4`-DDT | 50-29-3 | 0.05 | mg/kg | <0.05 | 2 mg/kg | 100.0 | 77.7 | 133 |
| EP075-EM: Methoxychlor | 72-43-5 | 0.03 | mg/kg | <0.03 | 2 mg/kg | 103 | 63.6 | 135 |
| **EP080/071: Total Petroleum Hydrocarbons (QCLot: 4264449)** | | | | | | | | |
| EP074-UT: C6 - C9 Fraction | ---- | 10 | mg/kg | <10 | 39.6 mg/kg | 87.8 | 61.1 | 119 |
| **EP080/071: Total Petroleum Hydrocarbons (QCLot: 4266807)** | | | | | | | | |
| EP071-EM: C10 - C14 Fraction | ---- | 50 | mg/kg | <50 | 760 mg/kg | 76.8 | 74.4 | 129 |
| EP071-EM: C15 - C28 Fraction | ---- | 100 | mg/kg | <100 | 3270 mg/kg | 87.8 | 81.0 | 123 |
| EP071-EM: C29 - C36 Fraction | ---- | 100 | mg/kg | <100 | 1550 mg/kg | 88.1 | 81.8 | 121 |
| EP071-EM: C10 - C36 Fraction (sum) | ---- | 50 | mg/kg | <50 | 5580 mg/kg | 86.2 | 70.0 | 130 |
| **EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4264449)** | | | | | | | | |
| EP074-UT: C6 - C10 Fraction | C6_C10 | 10 | mg/kg | <10 | 48.9 mg/kg | 89.3 | 59.9 | 119 |
| EP074-UT: C6 - C10 Fraction minus BTEX (F1) | C6_C10-BTEX | 10 | mg/kg | <10 | ---- | ---- | ---- | ---- |
| **EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4266807)** | | | | | | | | |
| EP071-EM: >C10 - C16 Fraction | ---- | 50 | mg/kg | <50 | 1110 mg/kg | 83.9 | 75.4 | 132 |
| EP071-EM: >C16 - C34 Fraction | ---- | 100 | mg/kg | <100 | 4180 mg/kg | 87.6 | 80.8 | 120 |
| EP071-EM: >C34 - C40 Fraction | ---- | 100 | mg/kg | <100 | 290 mg/kg | 79.4 | 73.3 | 136 |
| EP071-EM: >C10 - C40 Fraction (sum) | ---- | 50 | mg/kg | <50 | 5580 mg/kg | 86.4 | 70.0 | 130 |
| **EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4267229)** | | | | | | | | |
| EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.0002 | mg/kg | <0.0002 | 0.00111 mg/kg | 101 | 72.0 | 128 |
| EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.0002 | mg/kg | <0.0002 | 0.00118 mg/kg | 103 | 73.0 | 123 |
| EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.0002 | mg/kg | <0.0002 | 0.0014 mg/kg | 82.8 | 67.0 | 130 |
| EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.0002 | mg/kg | <0.0002 | 0.00119 mg/kg | 101 | 70.0 | 132 |
| EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.0002 | mg/kg | <0.0002 | 0.00116 mg/kg | 102 | 68.0 | 136 |
| EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.0002 | mg/kg | <0.0002 | 0.00121 mg/kg | 108 | 59.0 | 134 |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4267229)** | | | | | | | | |
| EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.001 | mg/kg | <0.001 | 0.00625 mg/kg | 112 | 71.0 | 135 |
| EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.0002 | mg/kg | <0.0002 | 0.00125 mg/kg | 118 | 69.0 | 132 |
| EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.0002 | mg/kg | <0.0002 | 0.00125 mg/kg | 112 | 70.0 | 132 |
| EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.0002 | mg/kg | <0.0002 | 0.00125 mg/kg | 98.2 | 71.0 | 131 |
| EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.0002 | mg/kg | <0.0002 | 0.00125 mg/kg | 101 | 69.0 | 133 |

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 |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4267229) - continued** | | | | | | | | |
| EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.0002 | mg/kg | <0.0002 | 0.00125 mg/kg | 109 | 72.0 | 129 |
| EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.0002 | mg/kg | <0.0002 | 0.00125 mg/kg | 112 | 69.0 | 133 |
| EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.0002 | mg/kg | <0.0002 | 0.00125 mg/kg | 96.2 | 64.0 | 136 |
| EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.0002 | mg/kg | <0.0002 | 0.00125 mg/kg | 108 | 69.0 | 135 |
| EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.0002 | mg/kg | <0.0002 | 0.00125 mg/kg | 107 | 66.0 | 139 |
| EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.0005 | mg/kg | <0.0005 | 0.00312 mg/kg | 107 | 69.0 | 133 |
| **EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4267229)** | | | | | | | | |
| EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.0002 | mg/kg | <0.0002 | 0.00125 mg/kg | 106 | 67.0 | 137 |
| EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.0005 | mg/kg | <0.0005 | 0.00312 mg/kg | 126 | 70.0 | 130 |
| EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.0005 | mg/kg | <0.0005 | 0.00312 mg/kg | 104 | 70.0 | 130 |
| EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.0005 | mg/kg | <0.0005 | 0.00312 mg/kg | 98.8 | 70.0 | 130 |
| EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.0005 | mg/kg | <0.0005 | 0.00312 mg/kg | 111 | 70.0 | 130 |
| EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.0002 | mg/kg | <0.0002 | 0.00125 mg/kg | 120 | 63.0 | 144 |
| EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.0002 | mg/kg | <0.0002 | 0.00125 mg/kg | 108 | 61.0 | 139 |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4267229)** | | | | | | | | |
| EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.0005 | mg/kg | <0.0005 | 0.00117 mg/kg | 101 | 62.0 | 145 |
| EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.0005 | mg/kg | <0.0005 | 0.00119 mg/kg | 100 | 64.0 | 140 |
| EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.0005 | mg/kg | <0.0005 | 0.0012 mg/kg | 135 | 65.0 | 137 |
| EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.0005 | mg/kg | <0.0005 | 0.00121 mg/kg | 123 | 70.0 | 130 |
| **EP231P: PFAS Sums (QCLot: 4267229)** | | | | | | | | |
| EP231X: Sum of PFAS | ---- | 0.0002 | mg/kg | <0.0002 | ---- | ---- | ---- | ---- |
| EP231X: Sum of PFHxS and PFOS | 355-46-4/17 63-23-1 | 0.0002 | mg/kg | <0.0002 | ---- | ---- | ---- | ---- |
| EP231X: Sum of PFAS (WA DER List) | ---- | 0.0002 | mg/kg | <0.0002 | ---- | ---- | ---- | ---- |

Sub-Matrix: **WATER**

| | | | | 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 |
| **EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4268805)** | | | | | | | | |
| EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.02 | µg/L | <0.02 | 0.222 µg/L | 99.3 | 72.0 | 130 |
| EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.02 | µg/L | <0.02 | 0.235 µg/L | 99.6 | 71.0 | 127 |
| EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.01 | µg/L | <0.01 | 0.228 µg/L | 98.0 | 68.0 | 131 |
| EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 94.6 | 69.0 | 134 |
| EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.01 | µg/L | <0.01 | 0.232 µg/L | 103 | 65.0 | 140 |
| EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.02 | µg/L | <0.02 | 0.241 µg/L | 103 | 53.0 | 142 |

Sub-Matrix: **WATER**

| | | | | 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 |
| **EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4271114)** | | | | | | | | |
| EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.02 | µg/L | <0.02 | 0.222 µg/L | 105 | 72.0 | 130 |
| EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.02 | µg/L | <0.02 | 0.235 µg/L | 96.1 | 71.0 | 127 |
| EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.01 | µg/L | <0.01 | 0.228 µg/L | 95.6 | 68.0 | 131 |
| EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 99.4 | 69.0 | 134 |
| EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.01 | µg/L | <0.01 | 0.232 µg/L | 106 | 65.0 | 140 |
| EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.02 | µg/L | <0.02 | 0.241 µg/L | 114 | 53.0 | 142 |
| **EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4271127)** | | | | | | | | |
| EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.02 | µg/L | <0.02 | 0.222 µg/L | 116 | 72.0 | 130 |
| EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.02 | µg/L | <0.02 | 0.235 µg/L | 101 | 71.0 | 127 |
| EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.01 | µg/L | <0.01 | 0.228 µg/L | 102 | 68.0 | 131 |
| EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 103 | 69.0 | 134 |
| EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.01 | µg/L | <0.01 | 0.232 µg/L | 104 | 65.0 | 140 |
| EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.02 | µg/L | <0.02 | 0.241 µg/L | 112 | 53.0 | 142 |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4268805)** | | | | | | | | |
| EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.1 | µg/L | <0.1 | 1.25 µg/L | 108 | 73.0 | 129 |
| EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 112 | 72.0 | 129 |
| EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 104 | 72.0 | 129 |
| EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 102 | 72.0 | 130 |
| EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.01 | µg/L | <0.01 | 0.25 µg/L | 103 | 71.0 | 133 |
| EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 106 | 69.0 | 130 |
| EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 108 | 71.0 | 129 |
| EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 93.3 | 69.0 | 133 |
| EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 104 | 72.0 | 134 |
| EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 101 | 65.0 | 144 |
| EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.05 | µg/L | <0.05 | 0.625 µg/L | 104 | 71.0 | 132 |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4271114)** | | | | | | | | |
| EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.1 | µg/L | <0.1 | 1.25 µg/L | 96.5 | 73.0 | 129 |
| EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 108 | 72.0 | 129 |
| EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 101 | 72.0 | 129 |
| EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 97.1 | 72.0 | 130 |
| EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.01 | µg/L | <0.01 | 0.25 µg/L | 97.6 | 71.0 | 133 |
| EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 101 | 69.0 | 130 |
| EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 90.4 | 71.0 | 129 |
| EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 77.0 | 69.0 | 133 |
| EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 106 | 72.0 | 134 |
| EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 93.7 | 65.0 | 144 |
| EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.05 | µg/L | <0.05 | 0.625 µg/L | 105 | 71.0 | 132 |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4271127)** | | | | | | | | |

Sub-Matrix: **WATER**

| 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 |
|---|---|---|---|---|---|---|---|---|
| **EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4271127) - continued** | | | | | | | | |
| EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.1 | µg/L | <0.1 | 1.25 µg/L | 96.2 | 73.0 | 129 |
| EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 107 | 72.0 | 129 |
| EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 101 | 72.0 | 129 |
| EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 97.8 | 72.0 | 130 |
| EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.01 | µg/L | <0.01 | 0.25 µg/L | 95.4 | 71.0 | 133 |
| EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 99.8 | 69.0 | 130 |
| EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 80.9 | 71.0 | 129 |
| EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 82.6 | 69.0 | 133 |
| EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 111 | 72.0 | 134 |
| EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 99.8 | 65.0 | 144 |
| EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.05 | µg/L | <0.05 | 0.625 µg/L | 98.6 | 71.0 | 132 |
| **EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4268805)** | | | | | | | | |
| EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 107 | 67.0 | 137 |
| EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.05 | µg/L | <0.05 | 0.625 µg/L | 117 | 68.0 | 141 |
| EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.05 | µg/L | <0.05 | 0.625 µg/L | 106 | 70.0 | 130 |
| EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.05 | µg/L | <0.05 | 0.625 µg/L | 92.9 | 70.0 | 130 |
| EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.05 | µg/L | <0.05 | 0.625 µg/L | 116 | 70.0 | 130 |
| EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 112 | 65.0 | 136 |
| EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 99.7 | 61.0 | 135 |
| **EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4271114)** | | | | | | | | |
| EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 115 | 67.0 | 137 |
| EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.05 | µg/L | <0.05 | 0.625 µg/L | 111 | 68.0 | 141 |
| EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.05 | µg/L | <0.05 | 0.625 µg/L | 108 | 70.0 | 130 |
| EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.05 | µg/L | <0.05 | 0.625 µg/L | 93.0 | 70.0 | 130 |
| EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.05 | µg/L | <0.05 | 0.625 µg/L | 105 | 70.0 | 130 |
| EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 98.9 | 65.0 | 136 |
| EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 102 | 61.0 | 135 |
| **EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4271127)** | | | | | | | | |
| EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 110 | 67.0 | 137 |
| EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.05 | µg/L | <0.05 | 0.625 µg/L | 109 | 68.0 | 141 |
| EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.05 | µg/L | <0.05 | 0.625 µg/L | 111 | 70.0 | 130 |

Sub-Matrix: **WATER**

| 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 |
| **EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4271127) - continued** | | | | | | | | |
| EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.05 | µg/L | <0.05 | 0.625 µg/L | 87.5 | 70.0 | 130 |
| EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.05 | µg/L | <0.05 | 0.625 µg/L | 111 | 70.0 | 130 |
| EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 103 | 65.0 | 136 |
| EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.02 | µg/L | <0.02 | 0.25 µg/L | 101 | 61.0 | 135 |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4268805)** | | | | | | | | |
| EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.05 | µg/L | <0.05 | 0.234 µg/L | 99.0 | 63.0 | 143 |
| EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.05 | µg/L | <0.05 | 0.238 µg/L | 105 | 64.0 | 140 |
| EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.05 | µg/L | <0.05 | 0.24 µg/L | 114 | 67.0 | 138 |
| EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.05 | µg/L | <0.05 | 0.242 µg/L | 91.0 | 70.0 | 130 |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4271114)** | | | | | | | | |
| EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.05 | µg/L | <0.05 | 0.234 µg/L | 108 | 63.0 | 143 |
| EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.05 | µg/L | <0.05 | 0.238 µg/L | 105 | 64.0 | 140 |
| EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.05 | µg/L | <0.05 | 0.24 µg/L | 119 | 67.0 | 138 |
| EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.05 | µg/L | <0.05 | 0.242 µg/L | 70.2 | 70.0 | 130 |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4271127)** | | | | | | | | |
| EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.05 | µg/L | <0.05 | 0.234 µg/L | 104 | 63.0 | 143 |
| EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.05 | µg/L | <0.05 | 0.238 µg/L | 101 | 64.0 | 140 |
| EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.05 | µg/L | <0.05 | 0.24 µg/L | 125 | 67.0 | 138 |
| EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.05 | µg/L | <0.05 | 0.242 µg/L | 78.5 | 70.0 | 130 |
| **EP231P: PFAS Sums (QCLot: 4268805)** | | | | | | | | |
| EP231X: Sum of PFAS | ---- | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |
| EP231X: Sum of PFHxS and PFOS | 355-46-4/17 63-23-1 | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |
| EP231X: Sum of PFAS (WA DER List) | ---- | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |
| **EP231P: PFAS Sums (QCLot: 4271114)** | | | | | | | | |
| EP231X: Sum of PFAS | ---- | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |
| EP231X: Sum of PFHxS and PFOS | 355-46-4/17 63-23-1 | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |
| EP231X: Sum of PFAS (WA DER List) | ---- | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |
| **EP231P: PFAS Sums (QCLot: 4271127)** | | | | | | | | |
| EP231X: Sum of PFAS | ---- | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |
| EP231X: Sum of PFHxS and PFOS | 355-46-4/17 63-23-1 | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |
| EP231X: Sum of PFAS (WA DER List) | ---- | 0.01 | µg/L | <0.01 | ---- | ---- | ---- | ---- |

## 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**

| | | | | Matrix Spike (MS) Report | | | |
|---|---|---|---|---|---|---|---|
| | | | | Spike | SpikeRecovery(%) | Acceptable Limits (%) | |
| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Concentration | MS | Low | High |
| **EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4267605)** | | | | | | | |
| EM2205527-002 | Anonymous | EG005T: Arsenic | 7440-38-2 | 50 mg/kg | 91.5 | 78.0 | 124 |
| | | EG005T: Cadmium | 7440-43-9 | 50 mg/kg | 92.8 | 79.7 | 116 |
| | | EG005T: Chromium | 7440-47-3 | 50 mg/kg | 88.7 | 79.0 | 121 |
| | | EG005T: Copper | 7440-50-8 | 250 mg/kg | 95.0 | 80.0 | 120 |
| | | EG005T: Lead | 7439-92-1 | 250 mg/kg | 92.5 | 80.0 | 120 |
| | | EG005T: Nickel | 7440-02-0 | 50 mg/kg | 88.0 | 78.0 | 120 |
| | | EG005T: Zinc | 7440-66-6 | 250 mg/kg | 85.4 | 80.0 | 120 |
| **EG035T: Total Recoverable Mercury by FIMS (QCLot: 4267606)** | | | | | | | |
| EM2205527-002 | Anonymous | EG035T: Mercury | 7439-97-6 | 0.5 mg/kg | 102 | 76.0 | 116 |
| **EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4268769)** | | | | | | | |
| EM2205598-001 | Anonymous | EG048G: Hexavalent Chromium | 18540-29-9 | 20 mg/kg | 59.8 | 58.0 | 114 |
| EM2205598-001 | Anonymous | EG048G: Hexavalent Chromium | 18540-29-9 | 20 mg/kg | 83.2 | 58.0 | 114 |
| **EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4268770)** | | | | | | | |
| EM2205909-005 | SX_OB_20220401_04_16_SS_Primary_ALS | EG048G: Hexavalent Chromium | 18540-29-9 | 20 mg/kg | 89.3 | 58.0 | 114 |
| EM2205909-005 | SX_OB_20220401_04_16_SS_Primary_ALS | EG048G: Hexavalent Chromium | 18540-29-9 | 20 mg/kg | 95.6 | 58.0 | 114 |
| **EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4268748)** | | | | | | | |
| EM2205874-067 | Anonymous | EK026SF: Total Cyanide | 57-12-5 | 20 mg/kg | 113 | 70.0 | 130 |
| **EK040T: Fluoride Total (QCLot: 4268755)** | | | | | | | |
| EM2205711-002 | Anonymous | EK040T: Fluoride | 16984-48-8 | 400 mg/kg | 79.2 | 70.0 | 130 |
| **EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4266808)** | | | | | | | |
| EM2205909-002 | SX_OB_20220331_07_51_SS_Duplicate_ALS | EP066-EM: Total Polychlorinated biphenyls | ---- | 1 mg/kg | 110 | 59.6 | 152 |
| **EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4264449)** | | | | | | | |
| EM2205909-002 | SX_OB_20220331_07_51_SS_Duplicate_ALS | EP074-UT: Benzene | 71-43-2 | 2 mg/kg | 98.5 | 53.7 | 130 |
| | | EP074-UT: Toluene | 108-88-3 | 2 mg/kg | 102 | 55.1 | 124 |
| **EP074I: Volatile Halogenated Compounds (QCLot: 4264449)** | | | | | | | |
| EM2205909-002 | SX_OB_20220331_07_51_SS_Duplicate_ALS | EP074-UT: 1.1-Dichloroethene | 75-35-4 | 2 mg/kg | 98.2 | 38.4 | 145 |
| | | EP074-UT: Trichloroethene | 79-01-6 | 2 mg/kg | 92.6 | 48.1 | 128 |
| | | EP074-UT: Chlorobenzene | 108-90-7 | 2 mg/kg | 96.9 | 55.5 | 122 |
| **EP075A: Phenolic Compounds (Halogenated) (QCLot: 4266805)** | | | | | | | |
| EM2205896-008 | Anonymous | EP075-EM: 2-Chlorophenol | 95-57-8 | 3 mg/kg | 102 | 44.0 | 143 |
| | | EP075-EM: 4-Chloro-3-methylphenol | 59-50-7 | 3 mg/kg | 92.7 | 41.5 | 139 |

Sub-Matrix: **SOIL**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Matrix Spike (MS) Report | | | |
|---|---|---|---|---|---|---|---|
| | | | | Spike | SpikeRecovery(%) | Acceptable Limits (%) | |
| | | | | Concentration | MS | Low | High |
| **EP075A: Phenolic Compounds (Halogenated) (QCLot: 4266805) - continued** | | | | | | | |
| EM2205896-008 | Anonymous | EP075-EM: Pentachlorophenol | 87-86-5 | 3 mg/kg | 85.3 | 10.0 | 144 |
| **EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4266805)** | | | | | | | |
| EM2205896-008 | Anonymous | EP075-EM: Phenol | 108-95-2 | 3 mg/kg | 96.2 | 44.2 | 134 |
| | | EP075-EM: 2-Nitrophenol | 88-75-5 | 3 mg/kg | 91.9 | 34.2 | 129 |
| **EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4266805)** | | | | | | | |
| EM2205896-008 | Anonymous | EP075-EM: Acenaphthene | 83-32-9 | 3 mg/kg | 94.9 | 42.6 | 138 |
| | | EP075-EM: Pyrene | 129-00-0 | 3 mg/kg | 93.4 | 37.8 | 152 |
| **EP080/071: Total Petroleum Hydrocarbons (QCLot: 4264449)** | | | | | | | |
| EM2205909-002 | SX_OB_20220331_07_51_SS_Duplicate_ALS | EP074-UT: C6 - C9 Fraction | ---- | 28 mg/kg | 104 | 42.3 | 111 |
| **EP080/071: Total Petroleum Hydrocarbons (QCLot: 4266807)** | | | | | | | |
| EM2205909-001 | SX_OB_20220331_08_19_SS_Primary_ALS | EP071-EM: C10 - C14 Fraction | ---- | 760 mg/kg | 74.1 | 71.3 | 126 |
| | | EP071-EM: C15 - C28 Fraction | ---- | 3270 mg/kg | 85.3 | 75.1 | 123 |
| | | EP071-EM: C29 - C36 Fraction | ---- | 1550 mg/kg | 86.1 | 78.1 | 120 |
| | | EP071-EM: C10 - C36 Fraction (sum) | ---- | 5580 mg/kg | 84.4 | 70.0 | 130 |
| **EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4264449)** | | | | | | | |
| EM2205909-002 | SX_OB_20220331_07_51_SS_Duplicate_ALS | EP074-UT: C6 - C10 Fraction | C6_C10 | 33 mg/kg | 106 | 39.9 | 109 |
| **EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4266807)** | | | | | | | |
| EM2205909-001 | SX_OB_20220331_08_19_SS_Primary_ALS | EP071-EM: >C10 - C16 Fraction | ---- | 1110 mg/kg | 81.4 | 71.5 | 130 |
| | | EP071-EM: >C16 - C34 Fraction | ---- | 4180 mg/kg | 85.4 | 76.9 | 119 |
| | | EP071-EM: >C34 - C40 Fraction | ---- | 290 mg/kg | 75.7 | 65.3 | 139 |
| | | EP071-EM: >C10 - C40 Fraction (sum) | ---- | 5580 mg/kg | 84.4 | 70.0 | 130 |
| **EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4267229)** | | | | | | | |
| EM2205907-001 | Anonymous | EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.00111 mg/kg | 92.5 | 72.0 | 128 |
| | | EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.00118 mg/kg | 93.2 | 73.0 | 123 |
| | | EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.00114 mg/kg | 92.2 | 67.0 | 130 |
| | | EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.00119 mg/kg | 104 | 70.0 | 132 |
| | | EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.00116 mg/kg | 104 | 68.0 | 136 |
| | | EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.00121 mg/kg | 97.8 | 59.0 | 134 |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4267229)** | | | | | | | |
| EM2205907-001 | Anonymous | EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 0.00625 mg/kg | 108 | 71.0 | 135 |
| | | EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.00125 mg/kg | 115 | 69.0 | 132 |
| | | EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.00125 mg/kg | 104 | 70.0 | 132 |
| | | EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.00125 mg/kg | 99.6 | 71.0 | 131 |
| | | EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.00125 mg/kg | 99.0 | 69.0 | 133 |
| | | EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.00125 mg/kg | 99.3 | 72.0 | 129 |
| | | EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.00125 mg/kg | 105 | 69.0 | 133 |

Sub-Matrix: **SOIL**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Matrix Spike (MS) Report Spike Concentration | SpikeRecovery(%) MS | Acceptable Limits (%) Low | High |
|---|---|---|---|---|---|---|---|
| **EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4267229) - continued** | | | | | | | |
| EM2205907-001 | Anonymous | EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.00125 mg/kg | 96.5 | 64.0 | 136 |
| | | EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.00125 mg/kg | 98.2 | 69.0 | 135 |
| | | EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.00125 mg/kg | 86.2 | 66.0 | 139 |
| | | EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.00312 mg/kg | 106 | 69.0 | 133 |
| **EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4267229)** | | | | | | | |
| EM2205907-001 | Anonymous | EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.00125 mg/kg | 92.6 | 67.0 | 137 |
| | | EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.00312 mg/kg | 117 | 70.0 | 130 |
| | | EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.00312 mg/kg | 104 | 70.0 | 130 |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.00312 mg/kg | 89.4 | 70.0 | 130 |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.00312 mg/kg | 108 | 70.0 | 130 |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.00125 mg/kg | 127 | 63.0 | 144 |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.00125 mg/kg | 108 | 61.0 | 139 |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4267229)** | | | | | | | |
| EM2205907-001 | Anonymous | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.00117 mg/kg | 97.0 | 62.0 | 145 |
| | | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.00119 mg/kg | 97.4 | 64.0 | 140 |
| | | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.0012 mg/kg | 112 | 65.0 | 137 |
| | | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.00121 mg/kg | 92.0 | 70.0 | 130 |

Sub-Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Matrix Spike (MS) Report Spike Concentration | SpikeRecovery(%) MS | Acceptable Limits (%) Low | High |
|---|---|---|---|---|---|---|---|
| **EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4268805)** | | | | | | | |
| EM2205815-005 | Anonymous | EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.222 µg/L | 105 | 72.0 | 130 |
| | | EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.235 µg/L | 108 | 71.0 | 127 |
| | | EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.228 µg/L | 102 | 68.0 | 131 |
| | | EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.238 µg/L | 111 | 69.0 | 134 |
| | | EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.232 µg/L | 99.0 | 65.0 | 140 |
| | | EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.241 µg/L | 102 | 53.0 | 142 |
| **EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4271114)** | | | | | | | |
| EM2205488-002 | Anonymous | EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.222 µg/L | 102 | 72.0 | 130 |
| | | EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.235 µg/L | 100 | 71.0 | 127 |
| | | EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.228 µg/L | 96.3 | 68.0 | 131 |
| | | EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.238 µg/L | 110 | 69.0 | 134 |
| | | EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.232 µg/L | 110 | 65.0 | 140 |

Sub-Matrix: **WATER**

| | | | | Matrix Spike (MS) Report | | | |
|---|---|---|---|---|---|---|---|
| | | | | Spike | SpikeRecovery(%) | Acceptable Limits (%) | |
| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Concentration | MS | Low | High |
| **EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4271114) - continued** | | | | | | | |
| EM2205488-002 | Anonymous | EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.241 µg/L | 113 | 53.0 | 142 |
| **EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4271127)** | | | | | | | |
| EM2205488-011 | Anonymous | EP231X: Perfluorobutane sulfonic acid (PFBS) | 375-73-5 | 0.222 µg/L | 117 | 72.0 | 130 |
| | | EP231X: Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.235 µg/L | 100 | 71.0 | 127 |
| | | EP231X: Perfluorohexane sulfonic acid (PFHxS) | 355-46-4 | 0.228 µg/L | 99.2 | 68.0 | 131 |
| | | EP231X: Perfluoroheptane sulfonic acid (PFHpS) | 375-92-8 | 0.238 µg/L | 103 | 69.0 | 134 |
| | | EP231X: Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.232 µg/L | 104 | 65.0 | 140 |
| | | EP231X: Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.241 µg/L | 91.6 | 53.0 | 142 |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4268805)** | | | | | | | |
| EM2205815-005 | Anonymous | EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 1.25 µg/L | 75.9 | 73.0 | 129 |
| | | EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.25 µg/L | 103 | 72.0 | 129 |
| | | EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.25 µg/L | 99.4 | 72.0 | 129 |
| | | EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.25 µg/L | 87.9 | 72.0 | 130 |
| | | EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.25 µg/L | 97.0 | 71.0 | 133 |
| | | EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.25 µg/L | 95.8 | 69.0 | 130 |
| | | EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.25 µg/L | 111 | 71.0 | 129 |
| | | EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.25 µg/L | 95.1 | 69.0 | 133 |
| | | EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.25 µg/L | 102 | 72.0 | 134 |
| | | EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.25 µg/L | 93.1 | 65.0 | 144 |
| | | EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.625 µg/L | 101 | 71.0 | 132 |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4271114)** | | | | | | | |
| EM2205488-002 | Anonymous | EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 1.25 µg/L | 88.5 | 73.0 | 129 |
| | | EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.25 µg/L | 108 | 72.0 | 129 |
| | | EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.25 µg/L | 103 | 72.0 | 129 |
| | | EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.25 µg/L | 96.2 | 72.0 | 130 |
| | | EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.25 µg/L | 96.1 | 71.0 | 133 |
| | | EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.25 µg/L | 99.1 | 69.0 | 130 |
| | | EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.25 µg/L | 90.5 | 71.0 | 129 |
| | | EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.25 µg/L | 78.8 | 69.0 | 133 |
| | | EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.25 µg/L | 108 | 72.0 | 134 |
| | | EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.25 µg/L | 99.4 | 65.0 | 144 |
| | | EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.625 µg/L | 104 | 71.0 | 132 |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4271127)** | | | | | | | |
| EM2205488-011 | Anonymous | EP231X: Perfluorobutanoic acid (PFBA) | 375-22-4 | 1.25 µg/L | 88.7 | 73.0 | 129 |
| | | EP231X: Perfluoropentanoic acid (PFPeA) | 2706-90-3 | 0.25 µg/L | 108 | 72.0 | 129 |
| | | EP231X: Perfluorohexanoic acid (PFHxA) | 307-24-4 | 0.25 µg/L | 98.2 | 72.0 | 129 |
| | | EP231X: Perfluoroheptanoic acid (PFHpA) | 375-85-9 | 0.25 µg/L | 91.1 | 72.0 | 130 |
| | | EP231X: Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.25 µg/L | 94.4 | 71.0 | 133 |

Sub-Matrix: **WATER**

| | | | | Matrix Spike (MS) Report | | | |
|---|---|---|---|---|---|---|---|
| | | | | Spike | SpikeRecovery(%) | Acceptable Limits (%) | |
| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Concentration | MS | Low | High |
| **EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4271127) - continued** | | | | | | | |
| EM2205488-011 | Anonymous | EP231X: Perfluorononanoic acid (PFNA) | 375-95-1 | 0.25 µg/L | 92.0 | 69.0 | 130 |
| | | EP231X: Perfluorodecanoic acid (PFDA) | 335-76-2 | 0.25 µg/L | 74.5 | 71.0 | 129 |
| | | EP231X: Perfluoroundecanoic acid (PFUnDA) | 2058-94-8 | 0.25 µg/L | 72.1 | 69.0 | 133 |
| | | EP231X: Perfluorododecanoic acid (PFDoDA) | 307-55-1 | 0.25 µg/L | 87.5 | 72.0 | 134 |
| | | EP231X: Perfluorotridecanoic acid (PFTrDA) | 72629-94-8 | 0.25 µg/L | 77.4 | 65.0 | 144 |
| | | EP231X: Perfluorotetradecanoic acid (PFTeDA) | 376-06-7 | 0.625 µg/L | 75.0 | 71.0 | 132 |
| **EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4268805)** | | | | | | | |
| EM2205815-005 | Anonymous | EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.25 µg/L | 108 | 67.0 | 137 |
| | | EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.625 µg/L | 116 | 68.0 | 141 |
| | | EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.625 µg/L | 92.0 | 70.0 | 130 |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.625 µg/L | 94.5 | 70.0 | 130 |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.625 µg/L | 107 | 70.0 | 130 |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.25 µg/L | 102 | 65.0 | 136 |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.25 µg/L | 106 | 61.0 | 135 |
| **EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4271114)** | | | | | | | |
| EM2205488-002 | Anonymous | EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.25 µg/L | 109 | 67.0 | 137 |
| | | EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.625 µg/L | 99.1 | 68.0 | 141 |
| | | EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.625 µg/L | 99.2 | 70.0 | 130 |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.625 µg/L | 90.6 | 70.0 | 130 |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.625 µg/L | 108 | 70.0 | 130 |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.25 µg/L | 108 | 65.0 | 136 |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.25 µg/L | 106 | 61.0 | 135 |
| **EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4271127)** | | | | | | | |
| EM2205488-011 | Anonymous | EP231X: Perfluorooctane sulfonamide (FOSA) | 754-91-6 | 0.25 µg/L | 100 | 67.0 | 137 |
| | | EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA) | 31506-32-8 | 0.625 µg/L | 70.0 | 68.0 | 141 |
| | | EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA) | 4151-50-2 | 0.625 µg/L | # 68.4 | 70.0 | 130 |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE) | 24448-09-7 | 0.625 µg/L | 78.5 | 70.0 | 130 |

Sub-Matrix: **WATER**

| | | | | Matrix Spike (MS) Report | | | |
|---|---|---|---|---|---|---|---|
| | | | | Spike | SpikeRecovery(%) | Acceptable Limits (%) | |
| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Concentration | MS | Low | High |
| **EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4271127) - continued** | | | | | | | |
| EM2205488-011 | Anonymous | EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE) | 1691-99-2 | 0.625 µg/L | 91.8 | 70.0 | 130 |
| | | EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) | 2355-31-9 | 0.25 µg/L | 87.1 | 65.0 | 136 |
| | | EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) | 2991-50-6 | 0.25 µg/L | 81.5 | 61.0 | 135 |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4268805)** | | | | | | | |
| EM2205815-005 | Anonymous | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.234 µg/L | 96.3 | 63.0 | 143 |
| | | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.238 µg/L | 116 | 64.0 | 140 |
| | | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.24 µg/L | 99.9 | 67.0 | 138 |
| | | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.242 µg/L | 76.2 | 70.0 | 130 |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4271114)** | | | | | | | |
| EM2205488-002 | Anonymous | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.234 µg/L | 103 | 63.0 | 143 |
| | | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.238 µg/L | 99.0 | 64.0 | 140 |
| | | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.24 µg/L | 117 | 67.0 | 138 |
| | | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.242 µg/L | 71.8 | 70.0 | 130 |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4271127)** | | | | | | | |
| EM2205488-011 | Anonymous | EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS) | 757124-72-4 | 0.234 µg/L | 109 | 63.0 | 143 |
| | | EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | 27619-97-2 | 0.238 µg/L | 103 | 64.0 | 140 |
| | | EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | 39108-34-4 | 0.24 µg/L | 93.1 | 67.0 | 138 |
| | | EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS) | 120226-60-0 | 0.242 µg/L | # 60.2 | 70.0 | 130 |

ALS Environmental

# QA/QC Compliance Assessment to assist with Quality Review

| | | | |
|---|---|---|---|
| **Work Order** | : **EM2205909** | Page |  |
| Client | : **AGON ENVIRONMENTAL PTY LTD** | Laboratory | : Environmental Division Melbourne |
| Contact | : DAVID LAWSON | Telephone | : +6138549 9600 |
| Project | : JC0927 | Date Samples Received | : 01-Apr-2022 |
| Site | : 20220401043619-ALS-13 | Issue Date | : 07-Apr-2022 |
| Sampler | : TB - Agon, WHO - Agon | No. of samples received | : 12 |
| Order number | : ---- | No. of samples analysed | : 12 |

**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.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **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.**

## Outliers : Quality Control Samples

*Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes*

Matrix: **WATER**

| Compound Group Name | Laboratory Sample ID | Client Sample ID | Analyte | CAS Number | Data | Limits | Comment |
|---|---|---|---|---|---|---|---|
| **Matrix Spike (MS) Recoveries** | | | | | | | |
| EP231C: Perfluoroalkyl Sulfonamides | EM2205488--011 | Anonymous | **N-Ethyl perfluorooctane sulfonamide (EtFOSA)** | 4151-50-2 | 68.4 % | 70.0-130% | **Recovery less than lower data quality objective** |
| EP231D: (n:2) Fluorotelomer Sulfonic Acids | EM2205488--011 | Anonymous | **10:2 Fluorotelomer sulfonic acid (10:2 FTS)** | 120226-60-0 | 60.2 % | 70.0-130% | **Recovery less than lower data quality objective** |

## 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: Date extracted | Due for extraction | Evaluation | Analysis: Date analysed | Due for analysis | Evaluation |
|---|---|---|---|---|---|---|---|
| **EA001: pH in soil using 0.01M CaCl extract** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EA001)**<br>SX_OB_20220401_00_08_SS_Primary_ALS, SX_OB_20220401_04_16_SS_Primary_ALS | **01-Apr-2022** | **06-Apr-2022** | 08-Apr-2022 | ✓ | **06-Apr-2022** | 06-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EA001)**<br>SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_07_51_SS_Duplicate_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | **31-Mar-2022** | **06-Apr-2022** | 07-Apr-2022 | ✓ | **06-Apr-2022** | 06-Apr-2022 | ✓ |
| **EA055: Moisture Content (Dried @ 105-110°C)** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EA055)**<br>SX_OB_20220401_00_08_SS_Primary_ALS, SX_OB_20220401_04_16_SS_Primary_ALS | **01-Apr-2022** | **----** | ---- | ---- | **05-Apr-2022** | 15-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EA055)**<br>SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_07_51_SS_Duplicate_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | **31-Mar-2022** | **----** | ---- | ---- | **05-Apr-2022** | 14-Apr-2022 | ✓ |
| **EG005(ED093)T: Total Metals by ICP-AES** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EG005T)**<br>SX_OB_20220401_00_08_SS_Primary_ALS, SX_OB_20220401_04_16_SS_Primary_ALS | **01-Apr-2022** | **06-Apr-2022** | 28-Sep-2022 | ✓ | **06-Apr-2022** | 28-Sep-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EG005T)**<br>SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_07_51_SS_Duplicate_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | **31-Mar-2022** | **06-Apr-2022** | 27-Sep-2022 | ✓ | **06-Apr-2022** | 27-Sep-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 |
| **EG035T: Total Recoverable Mercury by FIMS** | | | | | | | | |
| **Soil Glass Jar - Unpreserved (EG035T)** SX_OB_20220401_00_08_SS_Primary_ALS, | SX_OB_20220401_04_16_SS_Primary_ALS | 01-Apr-2022 | 06-Apr-2022 | 29-Apr-2022 | ✓ | 06-Apr-2022 | 29-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EG035T)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS, | 31-Mar-2022 | 06-Apr-2022 | 28-Apr-2022 | ✓ | 06-Apr-2022 | 28-Apr-2022 | ✓ |
| **EG048: Hexavalent Chromium (Alkaline Digest)** | | | | | | | | |
| **Soil Glass Jar - Unpreserved (EG048G)** SX_OB_20220401_00_08_SS_Primary_ALS, | SX_OB_20220401_04_16_SS_Primary_ALS | 01-Apr-2022 | 05-Apr-2022 | 29-Apr-2022 | ✓ | 06-Apr-2022 | 12-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EG048G)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS, | 31-Mar-2022 | 05-Apr-2022 | 28-Apr-2022 | ✓ | 06-Apr-2022 | 12-Apr-2022 | ✓ |
| **EK026SF: Total CN by Segmented Flow Analyser** | | | | | | | | |
| **Soil Glass Jar - Unpreserved (EK026SF)** SX_OB_20220401_00_08_SS_Primary_ALS, | SX_OB_20220401_04_16_SS_Primary_ALS | 01-Apr-2022 | 05-Apr-2022 | 15-Apr-2022 | ✓ | 06-Apr-2022 | 19-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EK026SF)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS, | 31-Mar-2022 | 05-Apr-2022 | 14-Apr-2022 | ✓ | 06-Apr-2022 | 19-Apr-2022 | ✓ |
| **EK040T: Fluoride Total** | | | | | | | | |
| **Soil Glass Jar - Unpreserved (EK040T)** SX_OB_20220401_00_08_SS_Primary_ALS, | SX_OB_20220401_04_16_SS_Primary_ALS | 01-Apr-2022 | 05-Apr-2022 | 29-Apr-2022 | ✓ | 07-Apr-2022 | 29-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EK040T)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS, | 31-Mar-2022 | 05-Apr-2022 | 28-Apr-2022 | ✓ | 07-Apr-2022 | 28-Apr-2022 | ✓ |
| **EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)** | | | | | | | | |
| **Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P)** SX_OB_20220401_00_08_SS_Primary_ALS, | SX_OB_20220401_04_16_SS_Primary_ALS | 01-Apr-2022 | 05-Apr-2022 | 28-Sep-2022 | ✓ | ---- | ---- | ---- |
| **Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS, | 31-Mar-2022 | 05-Apr-2022 | 27-Sep-2022 | ✓ | ---- | ---- | ---- |
| **EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)** | | | | | | | | |
| **Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)** SX_OB_20220401_00_08_SS_Primary_ALS, | SX_OB_20220401_04_16_SS_Primary_ALS | 01-Apr-2022 | 05-Apr-2022 | 28-Sep-2022 | ✓ | ---- | ---- | ---- |
| **Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS, | 31-Mar-2022 | 05-Apr-2022 | 27-Sep-2022 | ✓ | ---- | ---- | ---- |
| **EP066: Polychlorinated Biphenyls (PCB)** | | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP066-EM)** SX_OB_20220401_00_08_SS_Primary_ALS, | SX_OB_20220401_04_16_SS_Primary_ALS | 01-Apr-2022 | 05-Apr-2022 | 15-Apr-2022 | ✓ | 05-Apr-2022 | 15-May-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP066-EM)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS, | 31-Mar-2022 | 05-Apr-2022 | 14-Apr-2022 | ✓ | 05-Apr-2022 | 15-May-2022 | ✓ |

Matrix: **SOIL**

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

| Method / Container / Client Sample ID(s) | Sample Date | Extraction / Preparation: Date extracted | Due for extraction | Evaluation | Analysis: Date analysed | Due for analysis | Evaluation |
|---|---|---|---|---|---|---|---|
| **EP074A: Monocyclic Aromatic Hydrocarbons** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP074-UT)** SX_OB_20220401_00_08_SS_Primary_ALS, SX_OB_20220401_04_16_SS_Primary_ALS | **01-Apr-2022** | **04-Apr-2022** | 08-Apr-2022 | ✓ | **05-Apr-2022** | 08-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP074-UT)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_07_51_SS_Duplicate_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | **31-Mar-2022** | **04-Apr-2022** | 07-Apr-2022 | ✓ | **05-Apr-2022** | 07-Apr-2022 | ✓ |
| **EP074H: Naphthalene** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP074-UT)** SX_OB_20220401_00_08_SS_Primary_ALS, SX_OB_20220401_04_16_SS_Primary_ALS | **01-Apr-2022** | **04-Apr-2022** | 08-Apr-2022 | ✓ | **05-Apr-2022** | 08-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP074-UT)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_07_51_SS_Duplicate_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | **31-Mar-2022** | **04-Apr-2022** | 07-Apr-2022 | ✓ | **05-Apr-2022** | 07-Apr-2022 | ✓ |
| **EP074I: Volatile Halogenated Compounds** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP074-UT)** SX_OB_20220401_00_08_SS_Primary_ALS, SX_OB_20220401_04_16_SS_Primary_ALS | **01-Apr-2022** | **04-Apr-2022** | 08-Apr-2022 | ✓ | **05-Apr-2022** | 08-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP074-UT)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_07_51_SS_Duplicate_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | **31-Mar-2022** | **04-Apr-2022** | 07-Apr-2022 | ✓ | **05-Apr-2022** | 07-Apr-2022 | ✓ |
| **EP075A: Phenolic Compounds (Halogenated)** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP075-EM)** SX_OB_20220401_00_08_SS_Primary_ALS, SX_OB_20220401_04_16_SS_Primary_ALS | **01-Apr-2022** | **05-Apr-2022** | 15-Apr-2022 | ✓ | **05-Apr-2022** | 15-May-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP075-EM)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_07_51_SS_Duplicate_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | **31-Mar-2022** | **05-Apr-2022** | 14-Apr-2022 | ✓ | **05-Apr-2022** | 15-May-2022 | ✓ |
| **EP075A: Phenolic Compounds (Non-halogenated)** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP075-EM)** SX_OB_20220401_00_08_SS_Primary_ALS, SX_OB_20220401_04_16_SS_Primary_ALS | **01-Apr-2022** | **05-Apr-2022** | 15-Apr-2022 | ✓ | **05-Apr-2022** | 15-May-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP075-EM)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_07_51_SS_Duplicate_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | **31-Mar-2022** | **05-Apr-2022** | 14-Apr-2022 | ✓ | **05-Apr-2022** | 15-May-2022 | ✓ |
| **EP075B: Polynuclear Aromatic Hydrocarbons** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP075-EM)** SX_OB_20220401_00_08_SS_Primary_ALS, SX_OB_20220401_04_16_SS_Primary_ALS | **01-Apr-2022** | **05-Apr-2022** | 15-Apr-2022 | ✓ | **05-Apr-2022** | 15-May-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP075-EM)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_07_51_SS_Duplicate_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | **31-Mar-2022** | **05-Apr-2022** | 14-Apr-2022 | ✓ | **05-Apr-2022** | 15-May-2022 | ✓ |
| **EP075I: Organochlorine Pesticides** | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP075-EM)** SX_OB_20220401_00_08_SS_Primary_ALS, SX_OB_20220401_04_16_SS_Primary_ALS | **01-Apr-2022** | **05-Apr-2022** | 15-Apr-2022 | ✓ | **05-Apr-2022** | 15-May-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP075-EM)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_07_51_SS_Duplicate_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | **31-Mar-2022** | **05-Apr-2022** | 14-Apr-2022 | ✓ | **05-Apr-2022** | 15-May-2022 | ✓ |

Matrix: **SOIL**

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

| Method / Container / Client Sample ID(s) | | Sample Date | Extraction / Preparation: Date extracted | Due for extraction | Evaluation | Analysis: Date analysed | Due for analysis | Evaluation |
|---|---|---|---|---|---|---|---|---|
| **EP080/071: Total Petroleum Hydrocarbons** | | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP074-UT)** SX_OB_20220401_00_08_SS_Primary_ALS, | SX_OB_20220401_04_16_SS_Primary_ALS | **01-Apr-2022** | **04-Apr-2022** | 08-Apr-2022 | ✓ | **05-Apr-2022** | 08-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP071-EM)** SX_OB_20220401_00_08_SS_Primary_ALS, | SX_OB_20220401_04_16_SS_Primary_ALS | **01-Apr-2022** | **05-Apr-2022** | 15-Apr-2022 | ✓ | **05-Apr-2022** | 15-May-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP074-UT)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS, | **31-Mar-2022** | **04-Apr-2022** | 07-Apr-2022 | ✓ | **05-Apr-2022** | 07-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP071-EM)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS, | **31-Mar-2022** | **05-Apr-2022** | 14-Apr-2022 | ✓ | **05-Apr-2022** | 15-May-2022 | ✓ |
| **EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions** | | | | | | | | |
| **Soil Glass Jar - Unpreserved (EP074-UT)** SX_OB_20220401_00_08_SS_Primary_ALS, | SX_OB_20220401_04_16_SS_Primary_ALS | **01-Apr-2022** | **04-Apr-2022** | 08-Apr-2022 | ✓ | **05-Apr-2022** | 08-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP071-EM)** SX_OB_20220401_00_08_SS_Primary_ALS, | SX_OB_20220401_04_16_SS_Primary_ALS | **01-Apr-2022** | **05-Apr-2022** | 15-Apr-2022 | ✓ | **05-Apr-2022** | 15-May-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP074-UT)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS, | **31-Mar-2022** | **04-Apr-2022** | 07-Apr-2022 | ✓ | **05-Apr-2022** | 07-Apr-2022 | ✓ |
| **Soil Glass Jar - Unpreserved (EP071-EM)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS, | **31-Mar-2022** | **05-Apr-2022** | 14-Apr-2022 | ✓ | **05-Apr-2022** | 15-May-2022 | ✓ |
| **EP231A: Perfluoroalkyl Sulfonic Acids** | | | | | | | | |
| **HDPE Soil Jar (EP231X)** SX_OB_20220401_00_08_SS_Primary_ALS, | SX_OB_20220401_04_16_SS_Primary_ALS | **01-Apr-2022** | **05-Apr-2022** | 28-Sep-2022 | ✓ | **06-Apr-2022** | 15-May-2022 | ✓ |
| **HDPE Soil Jar (EP231X)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS, | **31-Mar-2022** | **05-Apr-2022** | 27-Sep-2022 | ✓ | **06-Apr-2022** | 15-May-2022 | ✓ |
| **EP231B: Perfluoroalkyl Carboxylic Acids** | | | | | | | | |
| **HDPE Soil Jar (EP231X)** SX_OB_20220401_00_08_SS_Primary_ALS, | SX_OB_20220401_04_16_SS_Primary_ALS | **01-Apr-2022** | **05-Apr-2022** | 28-Sep-2022 | ✓ | **06-Apr-2022** | 15-May-2022 | ✓ |
| **HDPE Soil Jar (EP231X)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS, | **31-Mar-2022** | **05-Apr-2022** | 27-Sep-2022 | ✓ | **06-Apr-2022** | 15-May-2022 | ✓ |
| **EP231C: Perfluoroalkyl Sulfonamides** | | | | | | | | |
| **HDPE Soil Jar (EP231X)** SX_OB_20220401_00_08_SS_Primary_ALS, | SX_OB_20220401_04_16_SS_Primary_ALS | **01-Apr-2022** | **05-Apr-2022** | 28-Sep-2022 | ✓ | **06-Apr-2022** | 15-May-2022 | ✓ |
| **HDPE Soil Jar (EP231X)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS, | **31-Mar-2022** | **05-Apr-2022** | 27-Sep-2022 | ✓ | **06-Apr-2022** | 15-May-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 |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids** | | | | | | | | |
| **HDPE Soil Jar (EP231X)** SX_OB_20220401_00_08_SS_Primary_ALS, | SX_OB_20220401_04_16_SS_Primary_ALS | **01-Apr-2022** | **05-Apr-2022** | 28-Sep-2022 | ✓ | **06-Apr-2022** | 15-May-2022 | ✓ |
| **HDPE Soil Jar (EP231X)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS, | **31-Mar-2022** | **05-Apr-2022** | 27-Sep-2022 | ✓ | **06-Apr-2022** | 15-May-2022 | ✓ |
| **EP231P: PFAS Sums** | | | | | | | | |
| **HDPE Soil Jar (EP231X)** SX_OB_20220401_00_08_SS_Primary_ALS, | SX_OB_20220401_04_16_SS_Primary_ALS | **01-Apr-2022** | **05-Apr-2022** | 28-Sep-2022 | ✓ | **06-Apr-2022** | 15-May-2022 | ✓ |
| **HDPE Soil Jar (EP231X)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_21_06_SS_Primary_ALS | SX_OB_20220331_07_51_SS_Duplicate_ALS, | **31-Mar-2022** | **05-Apr-2022** | 27-Sep-2022 | ✓ | **06-Apr-2022** | 15-May-2022 | ✓ |

Matrix: **WATER**

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 |
| **EP231A: Perfluoroalkyl Sulfonic Acids** | | | | | | | | |
| **HDPE (no PTFE) (EP231X)** SX_OB_20220401_04_24_SR_Rinsate_ALS, | SX_OB_20220401_04_25_SB_Blank_ALS | **01-Apr-2022** | **05-Apr-2022** | 28-Sep-2022 | ✓ | **05-Apr-2022** | 28-Sep-2022 | ✓ |
| **HDPE (no PTFE) (EP231X)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_21_06_SS_Primary_ALS, SX_OB_20220401_04_16_SS_Primary_ALS, SX_OB_20220331_07_51_SS_Duplicate_ALS, SX_OB_20220401_00_08_SS_Primary_ALS, | SX_OB_20220331_07_51_SS_Duplicate_ALS, SX_OB_20220401_00_08_SS_Primary_ALS, SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_21_06_SS_Primary_ALS, SX_OB_20220401_04_16_SS_Primary_ALS | **05-Apr-2022** | **06-Apr-2022** | 02-Oct-2022 | ✓ | **06-Apr-2022** | 02-Oct-2022 | ✓ |
| **EP231B: Perfluoroalkyl Carboxylic Acids** | | | | | | | | |
| **HDPE (no PTFE) (EP231X)** SX_OB_20220401_04_24_SR_Rinsate_ALS, | SX_OB_20220401_04_25_SB_Blank_ALS | **01-Apr-2022** | **05-Apr-2022** | 28-Sep-2022 | ✓ | **05-Apr-2022** | 28-Sep-2022 | ✓ |
| **HDPE (no PTFE) (EP231X)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_21_06_SS_Primary_ALS, SX_OB_20220401_04_16_SS_Primary_ALS, SX_OB_20220331_07_51_SS_Duplicate_ALS, SX_OB_20220401_00_08_SS_Primary_ALS, | SX_OB_20220331_07_51_SS_Duplicate_ALS, SX_OB_20220401_00_08_SS_Primary_ALS, SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_21_06_SS_Primary_ALS, SX_OB_20220401_04_16_SS_Primary_ALS | **05-Apr-2022** | **06-Apr-2022** | 02-Oct-2022 | ✓ | **06-Apr-2022** | 02-Oct-2022 | ✓ |
| **EP231C: Perfluoroalkyl Sulfonamides** | | | | | | | | |
| **HDPE (no PTFE) (EP231X)** SX_OB_20220401_04_24_SR_Rinsate_ALS, | SX_OB_20220401_04_25_SB_Blank_ALS | **01-Apr-2022** | **05-Apr-2022** | 28-Sep-2022 | ✓ | **05-Apr-2022** | 28-Sep-2022 | ✓ |
| **HDPE (no PTFE) (EP231X)** SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_21_06_SS_Primary_ALS, SX_OB_20220401_04_16_SS_Primary_ALS, SX_OB_20220331_07_51_SS_Duplicate_ALS, SX_OB_20220401_00_08_SS_Primary_ALS, | SX_OB_20220331_07_51_SS_Duplicate_ALS, SX_OB_20220401_00_08_SS_Primary_ALS, SX_OB_20220331_08_19_SS_Primary_ALS, SX_OB_20220331_21_06_SS_Primary_ALS, SX_OB_20220401_04_16_SS_Primary_ALS | **05-Apr-2022** | **06-Apr-2022** | 02-Oct-2022 | ✓ | **06-Apr-2022** | 02-Oct-2022 | ✓ |

Matrix: **WATER**

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

| Method<br>Container / Client Sample ID(s) | | Sample Date | Extraction / Preparation | | | Analysis | | |
|---|---|---|---|---|---|---|---|---|
| | | | Date extracted | Due for extraction | Evaluation | Date analysed | Due for analysis | Evaluation |
| **EP231D: (n:2) Fluorotelomer Sulfonic Acids** | | | | | | | | |
| **HDPE (no PTFE) (EP231X)** | | | | | | | | |
| SX_OB_20220401_04_24_SR_Rinsate_ALS, | SX_OB_20220401_04_25_SB_Blank_ALS | **01-Apr-2022** | **05-Apr-2022** | 28-Sep-2022 | ✓ | **05-Apr-2022** | 28-Sep-2022 | ✓ |
| **HDPE (no PTFE) (EP231X)** | | | | | | | | |
| SX_OB_20220331_08_19_SS_Primary_ALS, | SX_OB_20220331_07_51_SS_Duplicate_ALS, | **05-Apr-2022** | **06-Apr-2022** | 02-Oct-2022 | ✓ | **06-Apr-2022** | 02-Oct-2022 | ✓ |
| SX_OB_20220331_21_06_SS_Primary_ALS, | SX_OB_20220401_00_08_SS_Primary_ALS, | | | | | | | |
| SX_OB_20220401_04_16_SS_Primary_ALS, | SX_OB_20220331_08_19_SS_Primary_ALS, | | | | | | | |
| SX_OB_20220331_07_51_SS_Duplicate_ALS, | SX_OB_20220331_21_06_SS_Primary_ALS, | | | | | | | |
| SX_OB_20220401_00_08_SS_Primary_ALS, | SX_OB_20220401_04_16_SS_Primary_ALS | | | | | | | |
| **EP231P: PFAS Sums** | | | | | | | | |
| **HDPE (no PTFE) (EP231X)** | | | | | | | | |
| SX_OB_20220401_04_24_SR_Rinsate_ALS, | SX_OB_20220401_04_25_SB_Blank_ALS | **01-Apr-2022** | **05-Apr-2022** | 28-Sep-2022 | ✓ | **05-Apr-2022** | 28-Sep-2022 | ✓ |
| **HDPE (no PTFE) (EP231X)** | | | | | | | | |
| SX_OB_20220331_08_19_SS_Primary_ALS, | SX_OB_20220331_07_51_SS_Duplicate_ALS, | **05-Apr-2022** | **06-Apr-2022** | 02-Oct-2022 | ✓ | **06-Apr-2022** | 02-Oct-2022 | ✓ |
| SX_OB_20220331_21_06_SS_Primary_ALS, | SX_OB_20220401_00_08_SS_Primary_ALS, | | | | | | | |
| SX_OB_20220401_04_16_SS_Primary_ALS, | SX_OB_20220331_08_19_SS_Primary_ALS, | | | | | | | |
| SX_OB_20220331_07_51_SS_Duplicate_ALS, | SX_OB_20220331_21_06_SS_Primary_ALS, | | | | | | | |
| SX_OB_20220401_00_08_SS_Primary_ALS, | SX_OB_20220401_04_16_SS_Primary_ALS | | | | | | | |

## 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)** | | | | | | | |
| Hexavalent Chromium by Alkaline Digestion and DA Finish | EG048G | 4 | 36 | **11.11** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Moisture Content | EA055 | 1 | 5 | **20.00** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| PCB - VIC EPA 448.3 Screen | EP066-EM | 2 | 18 | **11.11** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X | 2 | 19 | **10.53** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| pH in soil using a 0.01M CaCl2 extract | EA001 | 2 | 20 | **10.00** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Semivolatile Organic Compounds - Waste Classification | EP075-EM | 2 | 18 | **11.11** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Cyanide by Segmented Flow Analyser | EK026SF | 2 | 20 | **10.00** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Fluoride | EK040T | 2 | 19 | **10.53** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Mercury by FIMS | EG035T | 2 | 20 | **10.00** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Metals by ICP-AES | EG005T | 2 | 20 | **10.00** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| TRH - Semivolatile Fraction | EP071-EM | 2 | 18 | **11.11** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Volatile Organic Compounds - Ultra-trace | EP074-UT | 1 | 5 | **20.00** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| **Laboratory Control Samples (LCS)** | | | | | | | |
| Hexavalent Chromium by Alkaline Digestion and DA Finish | EG048G | 4 | 36 | **11.11** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| PCB - VIC EPA 448.3 Screen | EP066-EM | 1 | 18 | **5.56** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X | 1 | 19 | **5.26** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| pH in soil using a 0.01M CaCl2 extract | EA001 | 2 | 20 | **10.00** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Semivolatile Organic Compounds - Waste Classification | EP075-EM | 1 | 18 | **5.56** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Cyanide by Segmented Flow Analyser | EK026SF | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Fluoride | EK040T | 1 | 19 | **5.26** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Mercury by FIMS | EG035T | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Metals by ICP-AES | EG005T | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| TRH - Semivolatile Fraction | EP071-EM | 1 | 18 | **5.56** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Volatile Organic Compounds - Ultra-trace | EP074-UT | 1 | 5 | **20.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| **Method Blanks (MB)** | | | | | | | |
| Deionised Water Leach - Plastic Leaching Vessel | EN60-DIa-P | 1 | 6 | **16.67** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Hexavalent Chromium by Alkaline Digestion and DA Finish | EG048G | 2 | 36 | **5.56** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| PCB - VIC EPA 448.3 Screen | EP066-EM | 1 | 18 | **5.56** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X | 1 | 19 | **5.26** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Semivolatile Organic Compounds - Waste Classification | EP075-EM | 1 | 18 | **5.56** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Cyanide by Segmented Flow Analyser | EK026SF | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Fluoride | EK040T | 1 | 19 | **5.26** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Mercury by FIMS | EG035T | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Metals by ICP-AES | EG005T | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| TRH - Semivolatile Fraction | EP071-EM | 1 | 18 | **5.56** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Volatile Organic Compounds - Ultra-trace | EP074-UT | 1 | 5 | **20.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |

Matrix: **SOIL**

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

| Quality Control Sample Type / Analytical Methods | Method | Count QC | Count Regular | Rate (%) Actual | Rate (%) Expected | Evaluation | Quality Control Specification |
|---|---|---|---|---|---|---|---|
| **Matrix Spikes (MS)** | | | | | | | |
| Hexavalent Chromium by Alkaline Digestion and DA Finish | EG048G | 4 | 36 | **11.11** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| PCB - VIC EPA 448.3 Screen | EP066-EM | 1 | 18 | **5.56** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X | 1 | 19 | **5.26** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Semivolatile Organic Compounds - Waste Classification | EP075-EM | 1 | 18 | **5.56** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Cyanide by Segmented Flow Analyser | EK026SF | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Fluoride | EK040T | 1 | 19 | **5.26** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Mercury by FIMS | EG035T | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Total Metals by ICP-AES | EG005T | 1 | 20 | **5.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| TRH - Semivolatile Fraction | EP071-EM | 1 | 18 | **5.56** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| Volatile Organic Compounds - Ultra-trace | EP074-UT | 1 | 5 | **20.00** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |

Matrix: **WATER**

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

| Quality Control Sample Type / Analytical Methods | Method | Count QC | Count Regular | Rate (%) Actual | Rate (%) Expected | Evaluation | Quality Control Specification |
|---|---|---|---|---|---|---|---|
| **Laboratory Duplicates (DUP)** | | | | | | | |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X | 6 | 53 | **11.32** | **10.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| **Laboratory Control Samples (LCS)** | | | | | | | |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X | 3 | 53 | **5.66** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| **Method Blanks (MB)** | | | | | | | |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X | 3 | 53 | **5.66** | **5.00** | ✓ | NEPM 2013 B3 & ALS QC Standard |
| **Matrix Spikes (MS)** | | | | | | | |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X | 3 | 53 | **5.66** | **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* |
|---|---|---|---|
| pH in soil using a 0.01M CaCl2 extract | EA001 | SOIL | In house: Referenced to Rayment and Lyons 4B3 (mod.) or 4B4 (mod.) 10 g of soil is mixed with 50 mL of 0.01M CaCl2 and tumbled end over end for 1 hour. pH is measured from the continuous suspension. This method is compliant with NEPM Schedule B(3). |
| 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) |
| Hexavalent Chromium by Alkaline Digestion and DA Finish | EG048G | SOIL | In house: Referenced to USEPA SW846, Method 3060. Hexavalent chromium is extracted by alkaline digestion. The digest is determined by photometrically by automatic discrete analyser, following pH adjustment. The instrument uses colour development using dephenylcarbazide. Each run of samples is measured against a five-point calibration curve. This method is compliant with NEPM Schedule B(3) |
| Total Cyanide by Segmented Flow Analyser | EK026SF | SOIL | In house: Referenced to APHA 4500-CN C / ASTM D7511 / ISO 14403. Caustic leachates of soil samples are introduced into an automated segmented flow analyser. Complex bound cyanide is decomposed in a continuously flowing stream, at a pH of 3.8, by the effect of UV light. A UV-B lamp (312 nm) and a decomposition spiral of borosilicate glass are used to filter out UV light with a wavelength of less than 290 nm thus preventing the conversion of thiocyanate into cyanide. The hydrogen cyanide present at a pH of 3.8 is separated by gas dialysis. The hydrogen cyanide is then determined photometrically, based on the reaction of cyanide with chloramine-T to form cyanogen chloride. This then reacts with 4-pyridine carboxylic acid and 1,3-dimethylbarbituric acid to give a red colour which is measured at 600 nm. This method is compliant with NEPM Schedule B(3). |
| Total Fluoride | EK040T | SOIL | (In-house) Total fluoride is determined by ion specific electrode (ISE) in a solution obtained after a Sodium Carbonate / Potassium Carbonate fusion dissolution. |
| PCB - VIC EPA 448.3 Screen | EP066-EM | 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). |
| TRH - Semivolatile Fraction | EP071-EM | SOIL | In house: Referenced to USEPA SW 846 - 8015A Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40. |
| Volatile Organic Compounds - Ultra-trace | EP074-UT | SOIL | In house: Referenced to USEPA SW 846 - 8260 Extracts are analysed by Purge and Trap, Capillary GC/MS in partial SIM/Scan mode. Quantification is by comparison against an established multi-point calibration curves. This method is compliant with NEPM Schedule B(3). |

| *Analytical Methods* | *Method* | *Matrix* | *Method Descriptions* |
|---|---|---|---|
| Volatile Organic Compounds - Ultra-trace - Summations | EP074-UT-SUM | SOIL | Summation of MAHs and VHCs |
| Semivolatile Organic Compounds - Waste Classification | EP075-EM | 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). |
| SVOC - Waste Classification (Sums) | EP075-EM-SUM | SOIL | Summations for EP075 (EM variation) |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X | SOIL | In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements. |
| Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS | EP231X | WATER | In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements. |

| *Preparation Methods* | *Method* | *Matrix* | *Method Descriptions* |
|---|---|---|---|
| NaOH leach for CN in Soils | CN-PR | SOIL | In house: APHA 4500 CN. Samples are extracted by end-over-end tumbling with NaOH. |
| pH in soil using a 0.01M CaCl2 extract | EA001-PR | SOIL | In house: Referenced to Rayment and Lyons 4B1, 10 g of soil is mixed with 50 mL of 0.01M CaCl2 and tumbled end over end for 1 hour. pH is measured from the continuous suspension. This method is compliant with NEPM Schedule B(3). |
| Alkaline digestion for Hexavalent Chromium | EG048PR | SOIL | In house: Referenced to USEPA SW846, Method 3060A. |
| Total Fluoride | EK040T-PR | SOIL | In house: Samples are fused with Sodium Carbonate / Potassium Carbonate flux. |
| ASLP for Non & Semivolatile Analytes - Plastic Leaching Vessel | EN60a-P | SOIL | In house QWI-EN/60 referenced to AS4439.3 Preparation of Leachates. |
| Deionised Water Leach - Plastic Leaching Vessel | EN60-DIa-P | SOIL | In house QWI-EN/60 referenced to AS4439.3 Preparation of Leachates |
| 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 - Ultra-trace. | ORG16-UT | 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 - VIC EPA Screen | ORG17-EM | 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. |

| *Preparation Methods* | *Method* | *Matrix* | *Method Descriptions* |
|---|---|---|---|
| QuEChеRS Extraction of Solids | ORG71 | SOIL | In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent. |
| Solid Phase Extraction (SPE) for PFAS in water | ORG72 | SOIL | In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements. |
| Solid Phase Extraction (SPE) for PFAS in water | ORG72 | WATER | In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements. |