

# TBM Spoil Waste Categorisation Report

<b>TBM Spoil Waste Cat Report No:</b>	E02.0220220601102636_01	This report is attached as part of a WCR form referencing <u>WGT-302-000-WKN-CJH-105-SWI-0001_01</u>
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## 1. Motherhub Summary

Source TBM/Bin at Pivot	1	Source Geological Domain	5
Approx. Source Tunnel Chainage From	669	Approx. Source Tunnel Chainage To	683
Approx. Rings From	282	Approx. Rings To	288
Foaming Agent	TamSoil 287AC	Water Source	Potable (City West Water)
For BSF Holding Bay No:	E02.02	Start of Filling From (Time / date)	19/05/2022
Tonnes Put in Holding Bay No:	7044.60	Finish of Filling (Time / Date)	21/05/2022
Classified Volume (LCM)	4000	Spoil Classification Decision	NPIW Containment
Sampling Ratio (samples per LCM)	1 : 210.53	Approx. Bank Cubic Meters (BCM)	2675.88

## 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, if 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

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Table 3.1 - Applicable Sample ID's

*Table 3.1 - 1 Applicable Sample ID's*

Applicable Spoil Sample ID's		
SX_OB_20220520_20_06_SS_Primary_ALS	SX_OB_20220520_12_10_SS_Primary_ALS	SX_OB_20220519_12_03_SS_Primary_EUF
SX_OB_20220520_20_02_SS_Primary_EUF	SX_OB_20220520_08_35_SS_Triplicate_EUF	SX_OB_20220519_08_00_SS_Duplicate_ALS
SX_OB_20220520_16_43_SS_Primary_ALS	SX_OB_20220520_08_34_SS_Duplicate_ALS	SX_OB_20220519_08_01_SS_Triplicate_EUF
SX_OB_20220520_16_33_SS_Duplicate_EUF	SX_OB_20220520_08_32_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS
SX_OB_20220520_16_34_SS_Triplicate_ALS	SX_OB_20220520_04_06_SS_Primary_ALS	SX_OB_20220519_04_18_SS_Primary_EUF
SX_OB_20220520_16_31_SS_Primary_EUF	SX_OB_20220519_20_34_SS_Primary_EUF	
SX_OB_20220520_12_31_SS_Primary_EUF	SX_OB_20220519_15_49_SS_Primary_ALS	
Total Sample Numbers	19	Ratio Acceptable
Primary Sample Numbers	13	Yes
Classified Volume (LCM)	4000 m <sup>3</sup>	
Volume: Sample Number Ratio (Samples per LCM)	1 : 210.53	

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## 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

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## 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)
<p>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</p> <p>If the answer is Yes, go to E. If the answer is No, go to B.</p>	<b>Yes</b>
<p>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 &lt;75% of the containment criteria?</p> <p>If the answer is Yes, go to C. If the answer is No, go to D.</p>	<b>NA</b>
<p>C. If the answer to B is Yes, then was <b>testing</b> 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)?</p>	<b>NA</b>
<p>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)?</p>	<b>NA</b>
<p>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?</p>	<b>Yes</b>
<p>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?</p>	<b>No</b>

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## 3.4 Spoil Compliance with SAQP Criteria for Containment Cell

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

<b>Need for IWRG 621.1 or 655.1 Testing</b>	
A. Is Spoil in this Holding Bay from a Zone of Exception or Anomalous and required testing for IWRG 621.1?	<b>No</b>
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?	<b>Yes</b>
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 TCO?	<b>No</b>
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)?	<b>No</b>
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?	<b>No</b>
<b>Outcome from IWRG 621.1 testing (if needed)</b>	
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.	<b>No</b>
<b>Outcome from IWRG 655.1 testing (if needed)</b>	
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	<b>NA</b>
<b>Outcome from PFAS Testing</b>	
H. Do test results for PFAS (see Table 3.4-4 below) permit NPIW Containment as a spoil Classification Outcome?	<b>Yes</b>
<b><i>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</i></b>	
<b>Notes:</b>	
<ol style="list-style-type: none"> <li>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</li> </ol>	

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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*	13	1: 210.53	19	18	55.26	100.2	200	20	NPIW-Containment - considered to be naturally occurring chemical, see comment 1 (Section 4)
Copper	mg/kg	5	19*	13	1: 210.53	19	46	63.47	69.3	110	100	NPIW-Containment
Chromium (hexavalent)	mg/kg	1	19*	13	1: 210.53	1	<1.0	N/A	N/A	1.2	1	NPIW-Containment - considered to be naturally occurring chemical, see comment 1 (Section 4)
Nickel	mg/kg	5	19*	13	1: 210.53	19	109	159.7	176.9	270	60	NPIW-Containment - considered to be naturally occurring chemical, see comment 1 (Section 4)

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

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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*	13	0	N/A	N/A	N/A	<5	N/A	NPIW-Containment
Total PFOA	ug/kg	5	19*	13	0	N/A	N/A	N/A	<5	N/A	NPIW-Containment
Total PFHxS	ug/kg	5	19*	13	0	N/A	N/A	N/A	<5	N/A	NPIW-Containment
ASLP (pH= 5) PFAS Concentrations											
PFOA	ug/L	0.01	19*	13	0	N/A	N/A	N/A	<0.01	56	NPIW-Containment
PFOS+PFHxS	ug/L	0.01	19*	13	0	N/A	N/A	N/A	<0.01	7	NPIW-Containment
ASLP (pH= 7) PFAS Concentrations											
PFOA	ug/L	0.01	19*	13	0	N/A	N/A	N/A	<0.01	56	NPIW-Containment
PFOS+PFHxS	ug/L	0.01	19*	13	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)



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## 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

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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												

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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												

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## 4. Comments and Limitations

Comments and Limitations	
1.	<p>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:</p> <ol style="list-style-type: none"> <li>1. Technical discussion around the naturally occurring metal concentrations found in soils beneath the WGTP is detailed in <i>Golder (2017b) – Technical Report B, Appendix E – Environmental characterisation of spoil (natural soil and rock)</i>. 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.               <ol style="list-style-type: none"> <li>a. <b>Arsenic</b> – <i>Golder (2017b) – Technical Report B, Appendix E section 6.2 Arsenic enrichment in the residual soil of the upper Older Volcanics (Tvo1)</i> 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:                   <ol style="list-style-type: none"> <li>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.</li> </ol> <p>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.</p> </li> <li>b. <b>Nickel</b> – <i>Golder (2017b) – Technical Report B, Appendix E section 6.3 Nickel enrichment within the upper Older Volcanics</i> found that                   <ol style="list-style-type: none"> <li>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).</li> <li>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).</li> <li>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.</li> </ol> </li> </ol> </li> </ol>

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iv. Enriched nickel concentrations also corresponded with enriched copper (Two soil and rock) and zinc (all units) indicating that the nickel is likely associated with geochemical enrichment rather than added contamination.

Golder therefore concluded that the nickel is likely associated with geochemical enrichment rather than added contamination.

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. Previous reviews of the presence of **hexavalent chromium (CrVI)** in soil data outlined on the SAQP (Rev 5) were undertaken by Golders (2017) and later consolidated with data compiled by Mikkonen by AJJV (2019). The AJJV review of the consolidated data set identified:

- Samples reported to contain hexavalent chromium above the IWRG621 Table 2 Fill Material Upper Limit of 1mg/kg, were not collected in areas considered to be where anthropogenic sources of CrVI were present
- The ratio of tests reported above the laboratory LOR of 0.5 mg/kg was 15 out of 84 tests
- The ratio of tests where CrVI was above 1mg/kg was 3 in 84 samples
- The maximum reported concentration was 2.8mg/kg
- The 95%UCLave was 0.439

The AJJV data review was to assess whether the spoil derived from the tunnelling operations would contain chemicals that would result in the spoil being classified as something other than Fill Material. AJJV concluded the CrVI was present due to natural enrichment. Refer extract from the AJJV report below:

*In summary, the reported CrVI concentration reported in the Older Volcanics are considered to be naturally occurring / enriched based on the following:*

- *No potential CrVI sources have been identified in the vicinity of the sampling locations that reported the CrVI concentrations.*
- *Similar concentrations of CrVI were reported in the Older Volcanics on the MMRP, that were deemed to be naturally occurring.*
- *The 2017 Golder report concluded that enriched arsenic concentrations in the Older Volcanics on WGT*
- *Corresponded with enriched vanadium indicating that the arsenic is likely associated with geochemical enrichment rather than added contamination. The elevated CrVI is also found through this area deemed to be geochemically enriched.*

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- *There were limited exceedances of CrVI in the groundwater, which suggested no evidence of an anthropogenic source or Potential pathway from the surface*

*Given the large volume of ground to be tunnelled, the 95% UCL's in Table E.2 and the likely naturally enriched nature of the reported CrVI, AJJV consider that the CrVI impacts will not alter the spoil classification within Domain 5. AJJV note that the material will undergo ongoing sampling as the TBM spoil is produced – sampling will be outlined within the SAQP. If any contaminated material is encountered beyond the extent of the nominated potentially contaminated domains, this will trigger management of the material in accordance with Tunnel Spoil Disposal Framework.*

Agon notes that Table E1: Summary of elevated concentration within Natural materials concludes the presence of hexavalent chromium may “Potentially” classify the spoil as PIW.

Unit	Element Exceeding Criteria	Count	Detects	Min	Max	Mean	Median	Standard Deviation	Count of Exceedance	95% UCL	Fill Material Upper Limit	Victorian Background Soil Database Soil greater than 0.6 m below surface				Findings		Classification as PIW
												Count	Min#	Max	Mean	95% UCL Statistical Assessment	Victorian Soil Database Assessment	
Older Volcanics	Fluoride	84	1	50	600	204	185	109	2	225.1	450	92	<100	790	283	Not Exceeding	Natural Origin	No Affect
	Arsenic	101	84	<4	860	33	7	116	25	84.6	20	994	≤10	1200	18	Exceeding	Natural Origin	No Affect
	Cadmium	103	6	<0.1	3	0.52	0.5	0.41	2	NA	3	-	-	-	-	NA	No Data	No Affect
	Chromium (VI) <sup>1</sup>	84	15	<0.5	2.8	0.927	0.7	0.592	3	0.439	1	-	-	-	-	NA	No Data	Potentially
	Copper	101	98	<5	326	63	55	44	15	82.4	100	799	<25	87	<25	Not Exceeding	No Data	No Affect
	Mercury	101	7	<0.1	1.7	0.077	0.05	0.17	1	NA	1	-	-	-	-	NA	No Data	No Affect
	Nickel	101	99	<2	451	127	115	73	88	140.6	60	830	<25	170	28	Exceeding	Natural Origin	No Affect
	Zinc	101	99	<5	483	84	63	79	6	98.7	200	819	<25	190	<25	Not Exceeding	No Data	No Affect

A review of the Agon data for spoil reported in data set B.05 shows:

- A similar ratio of test results >1mg/kg compared to the overall data set;
- If a ½ LOR is substituted for results reported as <LOR (of 1mg/kg), then like the AJJV 95% UCL, the calculation is <1mg/kg

The results also show that there are no synthetic compounds reported above the laboratory LOR, another indication that anthropogenic contamination is not present.

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”. 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.

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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. 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.



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## 5. Attachments

ATTACHMENT A: TABULATED RESULTS

ATTACHMENT B: 95% UCL AVE CALCULATIONS

ATTACHMENT C: LABORATORY CERTIFICATES

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ATTACHMENT A: TABULATED RESULTS

	Metals								
	Arsenic	Cadmium	Copper	Chromium (III+VI)	Chromium (hexavalent)	Lead	Mercury	Molybdenum	Nickel
	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
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
EPA Victoria IWRG621 Category C Leached Upper Limits									
EPA Victoria IWRG621 Category C Upper Limits	500	100	5,000		500	1,500	75	1,000	3,000
EPA Victoria IWRG621 Fill Upper Limits	20	3	100		1	300	1	40	60

Location Code	Field ID	Sample Code	Date	Lab Report Number	Lab Name	Sample Type	Parent Sample	Arsenic	Cadmium	Copper	Chromium (III+VI)	Chromium (hexavalent)	Lead	Mercury	Molybdenum	Nickel
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF	M22-My0045140	19/05/2022	889872	MGT	Normal		200	<0.4	110	170	<1	7.4	<0.1	<5	270
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF	M22-My0045150	19/05/2022	889872	MGT	Normal										
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF	M22-My0045160	19/05/2022	889872	MGT	Normal										
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS	EM2209335002	19/05/2022	EM2209335	ALSE-Melbourne	Normal		53	<1	57	84	1.2	6	<0.1	<5	140
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS	EM2209335015	19/05/2022	EM2209335	ALSE-Melbourne	Normal										
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS	EM2209335003	19/05/2022	EM2209335	ALSE-Melbourne	Field_D	EM2209335002	27	<1	61	106	<1.0	<5	<0.1	<5	153
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS	EM2209335016	19/05/2022	EM2209335	ALSE-Melbourne	Field_D	EM2209335015									
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF	M22-My0048417	19/05/2022	890217	Eurofins Environment ANZ	Interlab_D	EM2209335002	34	<1	84	130	<1	6.6	<0.1	<5	220
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF	M22-My0048433	19/05/2022	890217	Eurofins Environment ANZ	Interlab_D	EM2209335002									
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF	M22-My0048445	19/05/2022	890217	Eurofins Environment ANZ	Interlab_D	EM2209335015									
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF	M22-My0048422	19/05/2022	890217	Eurofins Environment ANZ	Normal		60	<1	82	110	<1	6.1	<0.1	<5	220
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF	M22-My0048436	19/05/2022	890217	Eurofins Environment ANZ	Normal										
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF	M22-My0048448	19/05/2022	890217	Eurofins Environment ANZ	Normal										
E02.02	SX_OB_20220519_15_49_SS_Primary_ALS	EM2209335007	19/05/2022	EM2209335	ALSE-Melbourne	Normal		54	1	56	67	<1.0	<5	<0.1	<5	155
E02.02	SX_OB_20220519_15_49_SS_Primary_ALS	EM2209335018	19/05/2022	EM2209335	ALSE-Melbourne	Normal										
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF	M22-My0048427	19/05/2022	890217	Eurofins Environment ANZ	Normal		55	<1	59	100	<1	8.5	<0.1	<5	140
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF	M22-My0048441	19/05/2022	890217	Eurofins Environment ANZ	Normal										
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF	M22-My0048453	19/05/2022	890217	Eurofins Environment ANZ	Normal										
E02.02	SX_OB_20220519_20_34_SS_Primary_ALS	EM2209335013	20/05/2022	EM2209335	ALSE-Melbourne	Normal		152	<1	58	72	<1.0	<5	<0.1	<5	109
E02.02	SX_OB_20220520_04_06_SS_Primary_ALS	EM2209335024	20/05/2022	EM2209335	ALSE-Melbourne	Normal										
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	EM2209419001	20/05/2022	EM2209419	ALSE-Melbourne	Normal		42	<1	48	73	<1.0	<5	<0.1	<5	129
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	EM2209419012	20/05/2022	EM2209419	ALSE-Melbourne	Normal										
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS	EM2209419002	20/05/2022	EM2209419	ALSE-Melbourne	Field_D	EM2209419001	49	<1	53	72	<1.0	<5	<0.1	<5	123
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS	EM2209419013	20/05/2022	EM2209419	ALSE-Melbourne	Field_D	EM2209419012									
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF	M22-My0051753	20/05/2022	890571	Eurofins Environment ANZ	Interlab_D	EM2209419001	45	<1	58	100	<1	6.8	<0.1	<5	150
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF	M22-My0051762	20/05/2022	890571	Eurofins Environment ANZ	Interlab_D	EM2209419001									
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF	M22-My0051771	20/05/2022	890571	Eurofins Environment ANZ	Interlab_D	EM2209419012									
E02.02	SX_OB_20220520_12_10_SS_Primary_ALS	EM2209419005	20/05/2022	EM2209419	ALSE-Melbourne	Normal		42	<1	62	93	<1.0	<5	<0.1	<5	138
E02.02	SX_OB_20220520_12_10_SS_Primary_ALS	EM2209419014	20/05/2022	EM2209419	ALSE-Melbourne	Normal										
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF	M22-My0051755	20/05/2022	890571	Eurofins Environment ANZ	Normal		56	<1	56	110	<1	6.3	<0.1	<5	150
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF	M22-My0051764	20/05/2022	890571	Eurofins Environment ANZ	Normal										
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF	M22-My0051773	20/05/2022	890571	Eurofins Environment ANZ	Normal										
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	M22-My0051756	20/05/2022	890571	Eurofins Environment ANZ	Normal		26	<1	72	130	<1	5.6	<0.1	<5	210
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	M22-My0051765	20/05/2022	890571	Eurofins Environment ANZ	Normal										
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	M22-My0051774	20/05/2022	890571	Eurofins Environment ANZ	Normal										
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF	M22-My0051757	20/05/2022	890571	Eurofins Environment ANZ	Field_D	M22-My0051756	25	<1	68	120	<1	5.2	<0.1	<5	160
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF	M22-My0051766	20/05/2022	890571	Eurofins Environment ANZ	Field_D	M22-My0051765									
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF	M22-My0051775	20/05/2022	890571	Eurofins Environment ANZ	Field_D	M22-My0051774									
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS	EM2209419006	20/05/2022	EM2209419	ALSE-Melbourne	Interlab_D	M22-My0051756	18	<1	59	94	<1.0	<5	<0.1	<5	144
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS	EM2209419015	20/05/2022	EM2209419	ALSE-Melbourne	Interlab_D	M22-My0051774									
E02.02	SX_OB_20220520_16_43_SS_Primary_ALS	EM2209419008	20/05/2022	EM2209419	ALSE-Melbourne	Normal		41	<1	51	77	<1.0	<5	<0.1	<5	126
E02.02	SX_OB_20220520_16_43_SS_Primary_ALS	EM2209419017	20/05/2022	EM2209419	ALSE-Melbourne	Normal										
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF	M22-My0051758	20/05/2022	890571	Eurofins Environment ANZ	Normal		27	<1	66	130	<1	5.6	<0.1	<5	180
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF	M22-My0051767	20/05/2022	890571	Eurofins Environment ANZ	Normal										
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF	M22-My0051776	20/05/2022	890571	Eurofins Environment ANZ	Normal										
E02.02	SX_OB_20220520_20_06_SS_Primary_ALS	EM2209419009	20/05/2022	EM2209419	ALSE-Melbourne	Normal		44	<1	46	81	<1.0	<5	<0.1	<5	117
E02.02	SX_OB_20220520_20_06_SS_Primary_ALS	EM2209419018	20/05/2022	EM2209419	ALSE-Melbourne	Normal										

	PAH																					
	Selenium	Silver	Tin	Zinc	PAHs (Vic EPA List)	Benzo(b+j+k)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(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	
	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	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
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	200	720		140,000	400									20								
EPA Victoria IWRG621 Category C Leached Upper Limits																						
EPA Victoria IWRG621 Category C Upper Limits	50	180	500	35,000	100									5								
EPA Victoria IWRG621 Fill Upper Limits	10	10	50	200	20									1								

Location Code	Field ID	Selenium	Silver	Tin	Zinc	PAHs (Vic EPA List)	Benzo(b+j+k)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(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	
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF	<2	<2	<10	200			<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	
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF																						
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF																						
E02.02	SX_OB_20220519_07_59_SS_Primary_EUF	<5	<2	<10	94	<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	
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS																						
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS	<5	<2	<10	104	<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	
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS																						
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF	<5	<2	<10	160			<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	
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF																						
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF																						
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF	<5	<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	
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF																						
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF																						
E02.02	SX_OB_20220519_15_49_SS_Primary_ALS	<5	<2	<10	87	<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	
E02.02	SX_OB_20220519_15_49_SS_Primary_ALS																						
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF	<5	<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	
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF																						
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF																						
E02.02	SX_OB_20220520_04_06_SS_Primary_EUF	<5	<2	<10	66	<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	
E02.02	SX_OB_20220520_04_06_SS_Primary_EUF																						
E02.02	SX_OB_20220520_04_06_SS_Primary_ALS																						
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	<5	<2	<10	76	<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	
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS																						
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS	<5	<2	<10	77	<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	
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS																						
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF	<5	<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	
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF																						
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF																						
E02.02	SX_OB_20220520_12_10_SS_Primary_ALS	<5	<2	<10	95	<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	
E02.02	SX_OB_20220520_12_10_SS_Primary_ALS																						
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF	<5	<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	
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	<5	<2	<10	140			<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	
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF	<5	<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	
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF																						
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF																						
E02.02	SX_OB_20220520_16_34_SS_Triplicate_EUF	<5	<2	<10	92	<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	
E02.02	SX_OB_20220520_16_34_SS_Triplicate_EUF																						
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS																						
E02.02	SX_OB_20220520_16_43_SS_Primary_ALS	<5	<2	<10	81	<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	
E02.02	SX_OB_20220520_16_43_SS_Primary_ALS																						
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF	<5	<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	
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF																						
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF																						
E02.02	SX_OB_20220520_20_06_SS_Primary_ALS	<5	<2	<10	72	<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	
E02.02	SX_OB_20220520_20_06_SS_Primary_ALS																						

	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Sum of total)	BTEX						TRH						TPH				
						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	
	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	0.5	0.5	0.1	0.1	0.1	0.1	0.2	0.3	20	20	50	50	100	100	50	20	20	50	
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					400	16													2,600			
EPA Victoria IWRG621 Category C Leached Upper Limits																						
EPA Victoria IWRG621 Category C Upper Limits					100	4													650			
EPA Victoria IWRG621 Fill Upper Limits					20	1													100			

Location Code	Field ID	Indeno(1,2,3-cd)pyrene	Naphthalene	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	
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF	<0.5	<0.5	<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	
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF																						
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF																						
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS	<0.5	<0.5	<0.5	<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	
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS																						
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS	<0.5	<0.5	<0.5	<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	
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS																						
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF	<0.5	<0.5	<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	31	<50	
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF																						
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF																						
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF	<0.5	<0.5	<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	
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF																						
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF																						
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF																						
E02.02	SX_OB_20220519_15_49_SS_Primary_ALS	<0.5	<0.5	<0.5	<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	
E02.02	SX_OB_20220519_15_49_SS_Primary_ALS																						
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF	<0.5	<0.5	<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	
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF																						
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF																						
E02.02	SX_OB_20220520_04_06_SS_Primary_EUF	<0.5	<0.5	<0.5	<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	
E02.02	SX_OB_20220520_04_06_SS_Primary_EUF																						
E02.02	SX_OB_20220520_04_06_SS_Primary_ALS																						
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	<0.5	<0.5	<0.5	<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	
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS																						
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS																						
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS	<0.5	<0.5	<0.5	<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	
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS																						
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF	<0.5	<0.5	<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	
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF																						
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF																						
E02.02	SX_OB_20220520_12_10_SS_Primary_ALS	<0.5	<0.5	<0.5	<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	
E02.02	SX_OB_20220520_12_10_SS_Primary_ALS																						
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF	<0.5	<0.5	<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	
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	<0.5	<0.5	<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	
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF	<0.5	<0.5	<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	
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF																						
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF																						
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF																						
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS	<0.5	<0.5	<0.5	<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	
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS																						
E02.02	SX_OB_20220520_16_43_SS_Primary_ALS	<0.5	<0.5	<0.5	<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	
E02.02	SX_OB_20220520_16_43_SS_Primary_ALS																						
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF	<0.5	<0.5	<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	
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF																						
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF																						
E02.02	SX_OB_20220520_20_06_SS_Primary_ALS	<0.5	<0.5	<0.5	<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	
E02.02	SX_OB_20220520_20_06_SS_Primary_ALS																						

	Organochlorine Pesticides																				
	C29-C36	+C10-C36 (Sum of total)	Aldrin	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
	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	50	50	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.03	0.03	0.05	0.05	0.05
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		40,000			4.8				50							16				4.8	
EPA Victoria IWRG621 Category C Leached Upper Limits																					
EPA Victoria IWRG621 Category C Upper Limits		10,000			1.2				50							4				1.2	
EPA Victoria IWRG621 Fill Upper Limits		1,000																			

Location Code	Field ID	C29-C36	+C10-C36 (Sum of total)	Aldrin	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	
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF																						
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF																						
E02.02	SX_OB_20220519_07_59_SS_Primary_EUF	<100	<50	<0.05	<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	
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS																						
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS	<100	<50	<0.05	<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	
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS																						
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF																						
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF																						
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF																						
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF																						
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF																						
E02.02	SX_OB_20220519_15_49_SS_Primary_EUF	<100	<50	<0.05	<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	
E02.02	SX_OB_20220519_15_49_SS_Primary_ALS																						
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF																						
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF																						
E02.02	SX_OB_20220520_04_06_SS_Primary_EUF	<100	<50	<0.05	<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	
E02.02	SX_OB_20220520_04_06_SS_Primary_ALS																						
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	<100	<50	<0.05	<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	
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS																						
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS	<100	<50	<0.05	<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	
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS																						
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF																						
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF																						
E02.02	SX_OB_20220520_12_10_SS_Primary_ALS	<100	<50	<0.05	<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	
E02.02	SX_OB_20220520_12_10_SS_Primary_ALS																						
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF																						
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF																						
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF																						
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS	<100	<50	<0.05	<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	
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS																						
E02.02	SX_OB_20220520_16_43_SS_Primary_ALS	<100	<50	<0.05	<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	
E02.02	SX_OB_20220520_16_43_SS_Primary_ALS																						
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF	<50	<50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF																						
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF																						
E02.02	SX_OB_20220520_20_06_SS_Primary_ALS	<100	<50	<0.05	<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	
E02.02	SX_OB_20220520_20_06_SS_Primary_ALS																						

	p-BHC	m-BHC	o-BHC	p-BHC (Lindane)	Methoxychlor	Toxaphene	Organochlorine pesticides EPA/Vic	Other organochlorine pesticides EPA/Vic	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	Phenols	
	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	0.5	0.1	0.03	0.5	0.5	1	1	0.5	1	1	0.05	5	10	0.03	0.5	20	
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								50														
EPA Victoria IWRG621 Category C Leached Upper Limits																						
EPA Victoria IWRG621 Category C Upper Limits								10														
EPA Victoria IWRG621 Fill Upper Limits								1														

Location Code	Field ID	p-BHC	m-BHC	o-BHC	p-BHC (Lindane)	Methoxychlor	Toxaphene	Organochlorine pesticides EPA/Vic	Other organochlorine pesticides EPA/Vic	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	Phenols
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	<5	<10	<0.5	<0.5	<20	
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF																					
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF																					
E02.02	SX_OB_20220519_07_59_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<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
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS																					
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS	<0.05	<0.05	<0.05	<0.05	<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
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS																					
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	<5	<10	<0.5	<0.5	<20	
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF																					
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF																					
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	<5	<10	<0.5	<0.5	<20	
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF																					
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF																					
E02.02	SX_OB_20220519_15_49_SS_Primary_ALS	<0.05	<0.05	<0.05	<0.05	<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
E02.02	SX_OB_20220519_15_49_SS_Primary_ALS																					
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	<5	<10	<0.5	<0.5	<20	
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF																					
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF																					
E02.02	SX_OB_20220520_04_06_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<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
E02.02	SX_OB_20220520_04_06_SS_Primary_EUF																					
E02.02	SX_OB_20220520_04_06_SS_Primary_ALS																					
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	<0.05	<0.05	<0.05	<0.05	<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
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS																					
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS	<0.05	<0.05	<0.05	<0.05	<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
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS																					
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	<5	<10	<0.5	<0.5	<20	
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF																					
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF																					
E02.02	SX_OB_20220520_12_10_SS_Primary_ALS	<0.05	<0.05	<0.05	<0.05	<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
E02.02	SX_OB_20220520_12_10_SS_Primary_ALS																					
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	<5	<10	<0.5	<0.5	<20	
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF																					
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF																					
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	<5	<10	<0.5	<0.5	<20	
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF																					
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF																					
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	<5	<10	<0.5	<0.5	<20	
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF																					
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF																					
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS	<0.05	<0.05	<0.05	<0.05	<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
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS																					
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS																					
E02.02	SX_OB_20220520_16_43_SS_Primary_ALS	<0.05	<0.05	<0.05	<0.05	<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
E02.02	SX_OB_20220520_16_43_SS_Primary_ALS																					
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	<5	<10	<0.5	<0.5	<20	
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF																					
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF																					
E02.02	SX_OB_20220520_20_06_SS_Primary_ALS	<0.05	<0.05	<0.05	<0.05	<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
E02.02	SX_OB_20220520_20_06_SS_Primary_ALS																					













	Chlorinated Hydrocarbons																				
	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	Dibromomethane	Dichloromethane	Hexachlorobutadiene	Other chlorinated hydrocarbons EPAVc	Trichloroethene	Chlorinated hydrocarbons EPAVc	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	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	0.5	0.5	0.5	0.5	0.5	0.5
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													11	50						4.8	
EPA Victoria IWRG621 Category C Leached Upper Limits																					
EPA Victoria IWRG621 Category C Upper Limits													2.8	10						1.2	
EPA Victoria IWRG621 Fill Upper Limits																1					

Location Code	Field ID	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	Dibromomethane	Dichloromethane	Hexachlorobutadiene	Other chlorinated hydrocarbons EPAVc	Trichloroethene	Chlorinated hydrocarbons EPAVc	cis-1,2-dichloroethene	1,1,2-trichloroethane	trans-1,3-dichloropropene	Vinyl chloride	Bromoform	
E02.02	SX_OB_20220519_04_18_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	<0.5	<0.5	<0.5	<0.5	
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF																						
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF																						
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS				<0.50		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS																						
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS				<0.50		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS																						
E02.02	SX_OB_20220519_08_01_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	<0.5	<0.5	<0.5	<0.5	
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF																						
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF																						
E02.02	SX_OB_20220519_12_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	<0.5	<0.5	<0.5	<0.5	
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF																						
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF																						
E02.02	SX_OB_20220519_15_49_SS_Primary_ALS				<0.50		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
E02.02	SX_OB_20220519_15_49_SS_Primary_ALS																						
E02.02	SX_OB_20220519_20_34_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	<0.5	<0.5	<0.5	<0.5	
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF																						
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF																						
E02.02	SX_OB_20220520_04_06_SS_Primary_ALS				<0.50		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
E02.02	SX_OB_20220520_04_06_SS_Primary_ALS																						
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS				<0.50		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS																						
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS				<0.50		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS																						
E02.02	SX_OB_20220520_08_35_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	<0.5	<0.5	<0.5	<0.5	
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF																						
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF																						
E02.02	SX_OB_20220520_12_10_SS_Primary_ALS				<0.50		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
E02.02	SX_OB_20220520_12_10_SS_Primary_ALS																						
E02.02	SX_OB_20220520_12_31_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	<0.5	<0.5	<0.5	<0.5	
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_16_31_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	<0.5	<0.5	<0.5	<0.5	
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_16_33_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	<0.5	<0.5	<0.5	<0.5	
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF																						
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF																						
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF																						
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS				<0.50		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS																						
E02.02	SX_OB_20220520_16_43_SS_Primary_ALS				<0.50		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
E02.02	SX_OB_20220520_16_43_SS_Primary_ALS																						
E02.02	SX_OB_20220520_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	<0.5	<0.5	<0.5	<0.5	
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF																						
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF																						
E02.02	SX_OB_20220520_20_06_SS_Primary_ALS				<0.50		<0.50	<0.50	<0.50				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
E02.02	SX_OB_20220520_20_06_SS_Primary_ALS																						

	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	trans-1,2-dichloroethene	Tetrachloroethene	NA			PCBs								Inorganics				
						Sum of WA DWER PFAS (n=10)*	Moisture Content		Arochlor 1232	Arochlor 1242	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)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	UG/KG	µg/L	%	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	0.05		1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
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																					
EPA Victoria IWRG621 Category C Leached Upper Limits																					
EPA Victoria IWRG621 Category C Upper Limits																					
EPA Victoria IWRG621 Fill Upper Limits																2					

Location Code	Field ID	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	trans-1,2-dichloroethene	Tetrachloroethene	Sum of WA DWER PFAS (n=10)*	Moisture Content	Arochlor 1232	Arochlor 1242	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)
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<10		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.7
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF						<0.05											5.1		4.9	
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF						<0.05											8.3		6.2	
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS	<0.50			<0.50	<0.50	<10.0	30.6								<0.1	1.0	5.1	7.9	5.0	
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS						<0.05											9.4			
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS	<0.50			<0.50	<0.50	<10.0	28.2								<0.1	1.8	5.1	8.1	5.0	
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS						<0.05											9.1			
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<10		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.2
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF						<0.05											5.2		5.0	
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF						<0.05											7.5		6.2	
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<10		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.4
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF						<0.05											5.2		5.0	
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF						<0.05											8.1		6.2	
E02.02	SX_OB_20220519_15_49_SS_Primary_ALS	<0.50			<0.50	<0.50	<10.0	23.4								<0.1	1.6	5.2	7.4	5.0	
E02.02	SX_OB_20220519_15_49_SS_Primary_ALS						<0.05											9.5			
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<10		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.5
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF						<0.05											5.2		5.0	
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF						<0.05											8.4		6.2	
E02.02	SX_OB_20220520_04_06_SS_Primary_ALS	<0.50			<0.50	<0.50	<10.0	29.0								<0.1	1.6	5.1	7.4	5.0	
E02.02	SX_OB_20220520_04_06_SS_Primary_ALS						<0.05											9.4			
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	<0.50			<0.50	<0.50	<10.0	28.3								<0.1	1.6	5.2	8.9	5.0	
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS						<0.05											7.5			
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS	<0.50			<0.50	<0.50	<10.0	25.0								<0.1	1.6	5.1	8.9	5.0	
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS						<0.05											9.3			
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<10		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					7.8
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF						<0.05											5.2		5.0	
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF						<0.05											8.3		5.9	
E02.02	SX_OB_20220520_12_10_SS_Primary_ALS	<0.50			<0.50	<0.50	<10.0	32.3								<0.1	1.6	5.1	8.6	5.0	
E02.02	SX_OB_20220520_12_10_SS_Primary_ALS						<0.05											9.2			
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<10		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					7.5
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF						<0.05											5.2		5.0	
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF						<0.05											8.3		5.9	
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<10		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					7.8
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF						<0.05											5.2		5.0	
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF						<0.05											8.2		5.9	
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<10		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					7.8
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF						<0.05											5.1		5.0	
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF						<0.05											8.2		5.9	
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS	<0.50			<0.50	<0.50	<10.0	30.4								<0.1	1.6	0.1	8.5	5.0	
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS						<0.05											9.1			
E02.02	SX_OB_20220520_16_43_SS_Primary_ALS	<0.50			<0.50	<0.50	<10.0	30.6								<0.1	1.6	5.1	8.8	5.0	
E02.02	SX_OB_20220520_16_43_SS_Primary_ALS						<0.05											9.3			
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	<10		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					7.8
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF						<0.05											5.1		5.0	
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF						<0.05											8.3		5.9	
E02.02	SX_OB_20220520_20_06_SS_Primary_ALS	<0.50			<0.50	<0.50	<10.0	28.4								<0.1	1.5	5.1	8.7	5.0	
E02.02	SX_OB_20220520_20_06_SS_Primary_ALS						<0.05											9.3			

	Fluoride	Moisture Content (dried @ 103°C)	Cyanide Total	Halogenated Benzenes							Halogenated Hydrocarbons					MAH					
				1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Bromobenzene	4-chlorotoluene	Chlorobenzene	Iodomethane	Bromomethane	1,2-dibromoethane	Dichlorodifluoromethane	Trichlorofluoromethane	Total MAH	Monocyclic aromatic hydrocarbons EPAVic	1,3,5-trimethylbenzene	Styrene	Iso-propylbenzene	1,2,4-trimethylbenzene
	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	100	1	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	0.5	0.5
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	40,000		10,000																		240
EPA Victoria IWRG621 Category C Leached Upper Limits																					
EPA Victoria IWRG621 Category C Upper Limits	10,000		2,500																		70
EPA Victoria IWRG621 Fill Upper Limits	450		50																		7

Location Code	Field ID	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	Bromomethane	1,2-dibromoethane	Dichlorodifluoromethane	Trichlorofluoromethane	Total MAH	Monocyclic aromatic hydrocarbons EPAVic	1,3,5-trimethylbenzene	Styrene	Iso-propylbenzene	1,2,4-trimethylbenzene	
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF	<100	30	<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	<0.5	<0.5	
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF																						
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF																						
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS	230		<5	<0.50	<0.50		<0.50			<0.50							<0.5		<0.5			
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS																						
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS	250		<5	<0.50	<0.50		<0.50			<0.50							<0.5		<0.5			
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS																						
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF	<100	36	<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	<0.5	<0.5	
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF																						
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF																						
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF	130	29	<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	<0.5	<0.5	
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF																						
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF																						
E02.02	SX_OB_20220519_15_49_SS_Primary_ALS	190		<5	<0.50	<0.50		<0.50			<0.50							<0.5		<0.5			
E02.02	SX_OB_20220519_15_49_SS_Primary_ALS																						
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF	<100	28	<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	<0.5	<0.5	
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF																						
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF																						
E02.02	SX_OB_20220520_04_06_SS_Primary_ALS	250		<5	<0.50	<0.50		<0.50			<0.50							<0.5		<0.5			
E02.02	SX_OB_20220520_04_06_SS_Primary_ALS																						
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	190		<5	<0.50	<0.50		<0.50			<0.50							<0.5		<0.5			
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS																						
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS	200		<5	<0.50	<0.50		<0.50			<0.50							<0.5		<0.5			
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS																						
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF	160	31	<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	<0.5	<0.5	
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF																						
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF																						
E02.02	SX_OB_20220520_12_10_SS_Primary_ALS	200		<5	<0.50	<0.50		<0.50			<0.50							<0.5		<0.5			
E02.02	SX_OB_20220520_12_10_SS_Primary_ALS																						
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF	140	30	<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	<0.5	<0.5	
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	110	32	<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	<0.5	<0.5	
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF	140	33	<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	<0.5	<0.5	
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF																						
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF																						
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS	170		<5	<0.50	<0.50		<0.50			<0.50							<0.5		<0.5			
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS																						
E02.02	SX_OB_20220520_16_43_SS_Primary_ALS	180		<5	<0.50	<0.50		<0.50			<0.50							<0.5		<0.5			
E02.02	SX_OB_20220520_16_43_SS_Primary_ALS																						
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF	180	32	<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	<0.5	<0.5	
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF																						
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF																						
E02.02	SX_OB_20220520_20_06_SS_Primary_ALS	250		<5	<0.50	<0.50		<0.50			<0.50							<0.5		<0.5			
E02.02	SX_OB_20220520_20_06_SS_Primary_ALS																						



	Solvents					SPOCAS
	4-Methyl-2-pentanone	Acetone	Allyl chloride	Carbon disulfide	Methyl Ethyl ketone	pH (CaCl2)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
EQL	0.5	0.5	0.5	0.5	0.5	0.1
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						
EPA Victoria IWRG621 Category C Leached Upper Limits						
EPA Victoria IWRG621 Category C Upper Limits						
EPA Victoria IWRG621 Fill Upper Limits						

Location Code	Field ID						
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF						
E02.02	SX_OB_20220519_04_18_SS_Primary_EUF						
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS						7.9
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS						
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS						7.7
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS						
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF						
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF						
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF						
E02.02	SX_OB_20220519_12_03_SS_Primary_EUF						
E02.02	SX_OB_20220519_15_49_SS_Primary_ALS						7.8
E02.02	SX_OB_20220519_15_49_SS_Primary_ALS						
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF						
E02.02	SX_OB_20220519_20_34_SS_Primary_EUF						
E02.02	SX_OB_20220520_04_06_SS_Primary_ALS						7.8
E02.02	SX_OB_20220520_04_06_SS_Primary_ALS						
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS						7.9
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS						
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS						7.8
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS						
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF						
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF						
E02.02	SX_OB_20220520_12_10_SS_Primary_ALS						7.9
E02.02	SX_OB_20220520_12_10_SS_Primary_ALS						
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF						
E02.02	SX_OB_20220520_12_31_SS_Primary_EUF						
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF						
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF						
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF						
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF						
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS						7.7
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS						
E02.02	SX_OB_20220520_16_43_SS_Primary_ALS						7.8
E02.02	SX_OB_20220520_16_43_SS_Primary_ALS						
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF	<0.5	<0.5	<0.5	<0.5	<0.5	
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF						
E02.02	SX_OB_20220520_20_02_SS_Primary_EUF						
E02.02	SX_OB_20220520_20_06_SS_Primary_ALS						7.8
E02.02	SX_OB_20220520_20_06_SS_Primary_ALS						

							Metals											
							Arsenic	Cadmium	Copper	Chromium (III+VI)	Chromium (hexavalent)	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Tin
							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	0.4	5	5	1	5	0.1	5	5	2	2	10
Location Code	Field ID	Date	Lab Report Number	Lab Name	Sample Type	Parent Sample												
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF	18/05/2022	889872	MGT	Normal		34	<0.4	67	140	<1	<5	<0.1	<5	220	<2	<2	<10
D07.02	SX_IB_20220518_15_50_SS_Duplicate_EUF	18/05/2022	889872	MGT	Field_D	M22-My0045135	43	<0.4	74	140	<1	<5	<0.1	<5	220	<2	<2	<10
RPD							23	0	10	0	0	0	0	0	0	0	0	0
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF	18/05/2022	889872	MGT	Normal		34	<0.4	67	140	<1	<5	<0.1	<5	220	<2	<2	<10
D07.02	SX_IB_20220518_15_51_SS_Triplicate_ALS	18/05/2022	EM2209314	ALSE-Melbourne	Interlab_D	M22-My0045135	29	<1	52	101	1.2	<5	<0.1	<5	157	<5	<2	<10
RPD							16	0	25	32	18	0	0	0	33	0	0	0
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF	18/05/2022	889872	MGT	Normal													
D07.02	SX_IB_20220518_15_50_SS_Duplicate_EUF	18/05/2022	889872	MGT	Field_D	M22-My0045145												
RPD																		
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF	18/05/2022	889872	MGT	Normal													
D07.02	SX_IB_20220518_15_50_SS_Duplicate_EUF	18/05/2022	889872	MGT	Field_D	M22-My0045155												
RPD																		
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF	18/05/2022	889872	MGT	Normal													
D07.02	SX_IB_20220518_15_51_SS_Triplicate_ALS	18/05/2022	EM2209314	ALSE-Melbourne	Interlab_D	M22-My0045155												
RPD																		
F09.01	SX_IB_20220518_07_55_SS_Primary_ALS	18/05/2022	EM2209314	ALSE-Melbourne	Normal		27	<1	61	104	1.8	<5	<0.1	<5	179	<5	<2	<10
F09.01	SX_IB_20220518_07_56_SS_Triplicate_EUF	18/05/2022	889872	MGT	Interlab_D	EM2209314001	24	<0.4	63	120	<1	<5	<0.1	<5	210	<2	<2	<10
RPD							12	0	3	14	57	0	0	0	16	0	0	0
F09.01	SX_IB_20220518_07_55_SS_Primary_ALS	18/05/2022	EM2209314	ALSE-Melbourne	Normal		27	<1	61	104	1.8	<5	<0.1	<5	179	<5	<2	<10
F09.01	SX_IB_20220518_07_56_SS_Triplicate_EUF	18/05/2022	889872	MGT	Interlab_D	EM2209314001												
RPD																		
F09.01	SX_IB_20220518_07_55_SS_Primary_ALS	18/05/2022	EM2209314	ALSE-Melbourne	Normal													
F09.01	SX_IB_20220518_07_56_SS_Triplicate_EUF	18/05/2022	889872	MGT	Interlab_D	EM2209314012												
RPD																		
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF	19/05/2022	890217	Eurofins Environment ANZ	Normal		30	<1	75	150	<1	<5	<0.1	<5	260	<5	<2	<10
D04.02	SX_IB_20220519_15_57_SS_Duplicate_EUF	19/05/2022	890217	Eurofins Environment ANZ	Field_D	M22-My0048423	21	<1	63	130	<1	<5	<0.1	<5	190	<5	<2	<10
RPD							35	0	17	14	0	0	0	0	31	0	0	0
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF	19/05/2022	890217	Eurofins Environment ANZ	Normal		30	<1	75	150	<1	<5	<0.1	<5	260	<5	<2	<10
D04.02	SX_IB_20220519_15_58_SS_Triplicate_ALS	19/05/2022	EM2209335	ALSE-Melbourne	Interlab_D	M22-My0048423	20	<1	67	134	2.2	<5	<0.1	<5	188	<5	<2	<10
RPD							40	0	11	11	75	0	0	0	32	0	0	0
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF	19/05/2022	890217	Eurofins Environment ANZ	Normal													
D04.02	SX_IB_20220519_15_57_SS_Duplicate_EUF	19/05/2022	890217	Eurofins Environment ANZ	Field_D	M22-My0048437												
RPD																		
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF	19/05/2022	890217	Eurofins Environment ANZ	Normal													
D04.02	SX_IB_20220519_15_57_SS_Duplicate_EUF	19/05/2022	890217	Eurofins Environment ANZ	Field_D	M22-My0048449												
RPD																		
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF	19/05/2022	890217	Eurofins Environment ANZ	Normal													
D04.02	SX_IB_20220519_15_58_SS_Triplicate_ALS	19/05/2022	EM2209335	ALSE-Melbourne	Interlab_D	M22-My0048449												
RPD																		
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF	19/05/2022	890217	Eurofins Environment ANZ	Normal		23	<1	65	140	<1	<5	<0.1	<5	200	<5	<2	<10
D04.02	SX_IB_20220519_20_05_SS_Duplicate_EUF	19/05/2022	890217	Eurofins Environment ANZ	Field_D	M22-My0048425	31	<1	80	170	<1	<5	<0.1	<5	240	<5	<2	<10
RPD							30	0	21	19	0	0	0	0	18	0	0	0
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF	19/05/2022	890217	Eurofins Environment ANZ	Normal		23	<1	65	140	<1	<5	<0.1	<5	200	<5	<2	<10
D04.02	SX_IB_20220519_20_06_SS_Triplicate_ALS	19/05/2022	EM2209335	ALSE-Melbourne	Interlab_D	M22-My0048425	24	1	63	127	2.2	<5	<0.1	<5	175	<5	<2	<10
RPD							4	0	3	10	75	0	0	0	13	0	0	0
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF	19/05/2022	890217	Eurofins Environment ANZ	Normal													
D04.02	SX_IB_20220519_20_05_SS_Duplicate_EUF	19/05/2022	890217	Eurofins Environment ANZ	Field_D	M22-My0048439												
RPD																		
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF	19/05/2022	890217	Eurofins Environment ANZ	Normal													
D04.02	SX_IB_20220519_20_05_SS_Duplicate_EUF	19/05/2022	890217	Eurofins Environment ANZ	Field_D	M22-My0048451												
RPD																		
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF	19/05/2022	890217	Eurofins Environment ANZ	Normal													
D04.02	SX_IB_20220519_20_06_SS_Triplicate_ALS	19/05/2022	EM2209335	ALSE-Melbourne	Interlab_D	M22-My0048451												
RPD																		
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS	19/05/2022	EM2209335	ALSE-Melbourne	Normal		53	<1	57	84	1.2	6	<0.1	<5	140	<5	<2	<10
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS	19/05/2022	EM2209335	ALSE-Melbourne	Field_D	EM2209335002	27	<1	61	106	<1.0	<5	<0.1	<5	153	<5	<2	<10
RPD							65	0	7	23	18	18	0	0	9	0	0	0
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS	19/05/2022	EM2209335	ALSE-Melbourne	Normal		53	<1	57	84	1.2	6	<0.1	<5	140	<5	<2	<10
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF	19/05/2022	890217	Eurofins Environment ANZ	Interlab_D	EM2209335002	34	<1	84	130	<1	6.6	<0.1	<5	220	<5	<2	<10
RPD							44	0	38	43	18	10	0	0	44	0	0	0
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS	19/05/2022	EM2209335	ALSE-Melbourne	Normal		53	<1	57	84	1.2	6	<0.1	<5	140	<5	<2	<10
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF	19/05/2022	890217	Eurofins Environment ANZ	Interlab_D	EM2209335002												



							Metals												
							Arsenic	Cadmium	Copper	Chromium (III+VI)	Chromium (hexavalent)	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Tin	
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
RPD																			
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS	19/05/2022	EM2209335	ALSE-Melbourne	Normal														
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS	19/05/2022	EM2209335	ALSE-Melbourne	Field_D	EM2209335015													
RPD																			
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS	19/05/2022	EM2209335	ALSE-Melbourne	Normal														
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF	19/05/2022	890217	Eurofins Environment ANZ	Interlab_D	EM2209335015													
RPD																			
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	20/05/2022	890571	Eurofins Environment ANZ	Normal		26	<1	72	130	<1	5.6	<0.1	<5	210	<5	<2	<10	
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF	20/05/2022	890571	Eurofins Environment ANZ	Field_D	M22-My0051756	25	<1	68	120	<1	5.2	<0.1	<5	160	<5	<2	<10	
RPD							4	0	6	8	0	7	0	0	27	0	0	0	
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	20/05/2022	890571	Eurofins Environment ANZ	Normal		26	<1	72	130	<1	5.6	<0.1	<5	210	<5	<2	<10	
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS	20/05/2022	EM2209419	ALSE-Melbourne	Interlab_D	M22-My0051756	18	<1	59	94	<1.0	<5	<0.1	<5	144	<5	<2	<10	
RPD							36	0	20	32	0	11	0	0	37	0	0	0	
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	20/05/2022	890571	Eurofins Environment ANZ	Normal														
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF	20/05/2022	890571	Eurofins Environment ANZ	Field_D	M22-My0051765													
RPD																			
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	20/05/2022	890571	Eurofins Environment ANZ	Normal														
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF	20/05/2022	890571	Eurofins Environment ANZ	Field_D	M22-My0051774													
RPD																			
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	20/05/2022	890571	Eurofins Environment ANZ	Normal														
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS	20/05/2022	EM2209419	ALSE-Melbourne	Interlab_D	M22-My0051774													
RPD																			
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	20/05/2022	EM2209419	ALSE-Melbourne	Normal		42	<1	48	73	<1.0	<5	<0.1	<5	129	<5	<2	<10	
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS	20/05/2022	EM2209419	ALSE-Melbourne	Field_D	EM2209419001	49	<1	53	72	<1.0	<5	<0.1	<5	123	<5	<2	<10	
RPD							15	0	10	1	0	0	0	5	0	0	0		
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	20/05/2022	EM2209419	ALSE-Melbourne	Normal		42	<1	48	73	<1.0	<5	<0.1	<5	129	<5	<2	<10	
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF	20/05/2022	890571	Eurofins Environment ANZ	Interlab_D	EM2209419001	45	<1	58	100	<1	6.8	<0.1	<5	150	<5	<2	<10	
RPD							7	0	19	31	0	31	0	0	15	0	0	0	
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	20/05/2022	EM2209419	ALSE-Melbourne	Normal		42	<1	48	73	<1.0	<5	<0.1	<5	129	<5	<2	<10	
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF	20/05/2022	890571	Eurofins Environment ANZ	Interlab_D	EM2209419001													
RPD																			
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	20/05/2022	EM2209419	ALSE-Melbourne	Normal														
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS	20/05/2022	EM2209419	ALSE-Melbourne	Field_D	EM2209419012													
RPD																			
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	20/05/2022	EM2209419	ALSE-Melbourne	Normal														
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF	20/05/2022	890571	Eurofins Environment ANZ	Interlab_D	EM2209419012													
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																				
	Zinc	PAHs (Vic EPA List)	Benzo(b+j)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(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(e,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene
EQL	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
Location Code	Field ID																					
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF	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	<0.5	<0.5
D07.02	SX_IB_20220518_15_50_SS_Duplicate_EUF	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	<0.5	<0.5
RPD		8		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF	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	<0.5	<0.5
D07.02	SX_IB_20220518_15_51_SS_Triplicate_ALS	83	<0.5	<1.0	<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	<0.5	<0.5
RPD		36		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF																					
D07.02	SX_IB_20220518_15_50_SS_Duplicate_EUF																					
RPD																						
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF																					
D07.02	SX_IB_20220518_15_50_SS_Duplicate_EUF																					
RPD																						
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF																					
D07.02	SX_IB_20220518_15_51_SS_Triplicate_ALS																					
RPD																						
F09.01	SX_IB_20220518_07_55_SS_Primary_ALS	82	<0.5	<1.0	<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	<0.5	<0.5
F09.01	SX_IB_20220518_07_56_SS_Triplicate_EUF	110			<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	<0.5	<0.5
RPD		29			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F09.01	SX_IB_20220518_07_55_SS_Primary_ALS	82	<0.5	<1.0	<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	<0.5	<0.5
F09.01	SX_IB_20220518_07_56_SS_Triplicate_EUF																					
RPD																						
F09.01	SX_IB_20220518_07_55_SS_Primary_ALS																					
F09.01	SX_IB_20220518_07_56_SS_Triplicate_EUF																					
RPD																						
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF	150			<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	<0.5	<0.5
D04.02	SX_IB_20220519_15_57_SS_Duplicate_EUF	120			<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	<0.5	<0.5
RPD		22			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF	150			<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	<0.5	<0.5
D04.02	SX_IB_20220519_15_58_SS_Triplicate_ALS	108	<0.5	<1.0	<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	<0.5	<0.5
RPD		33			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF																					
D04.02	SX_IB_20220519_15_57_SS_Duplicate_EUF																					
RPD																						
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF																					
D04.02	SX_IB_20220519_15_57_SS_Duplicate_EUF																					
RPD																						
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF																					
D04.02	SX_IB_20220519_15_58_SS_Triplicate_ALS																					
RPD																						
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF	120			<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	<0.5	<0.5
D04.02	SX_IB_20220519_20_05_SS_Duplicate_EUF	150			<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	<0.5	<0.5
RPD		22			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF	120			<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	<0.5	<0.5
D04.02	SX_IB_20220519_20_06_SS_Triplicate_ALS	96	<0.5	<1.0	<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	<0.5	<0.5
RPD		22			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF																					
D04.02	SX_IB_20220519_20_05_SS_Duplicate_EUF																					
RPD																						
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF																					
D04.02	SX_IB_20220519_20_05_SS_Duplicate_EUF																					
RPD																						
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF																					
D04.02	SX_IB_20220519_20_06_SS_Triplicate_ALS																					
RPD																						
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS	94	<0.5	<1.0	<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	<0.5	<0.5
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS	104	<0.5	<1.0	<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	<0.5	<0.5
RPD		10			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS	94	<0.5	<1.0	<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	<0.5	<0.5
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF	160			<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	<0.5	<0.5
RPD		52			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS	94	<0.5	<1.0	<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	<0.5	<0.5
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF																					

		PAH																					
		Zinc	PAHs (Vic EPA List)	Benzo(b+j+k)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(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(e,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene
		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
RPD																							
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS																						
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS																						
RPD																							
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS																						
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF																						
RPD																							
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	140			<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	<0.5	<0.5
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF	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	<0.5	<0.5
RPD		15			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	140			<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	<0.5	<0.5
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS	92	<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	<0.5	<0.5	<0.5	<0.5
RPD		41			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF																						
RPD																							
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF																						
RPD																							
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS																						
RPD																							
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	76	<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	<0.5	<0.5	<0.5	<0.5
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS	77	<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	<0.5	<0.5	<0.5	<0.5
RPD		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	76	<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	<0.5	<0.5	<0.5	<0.5
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF	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	<0.5	<0.5
RPD		27			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	76	<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	<0.5	<0.5	<0.5	<0.5
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF																						
RPD																							
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS																						
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS																						
RPD																							
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS																						
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF																						
RPD																							

\*RPDs have only been considered where a concentration is greater than 1 tim  
 \*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPD)  
 \*\*\*Interlab Duplicates are matched on a per compound basis as methods vary

PAHs (Sum of total)	BTEX							TRH							TPH					Aldrin	Dieldrin	Aldrin + Dieldrin	
	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)					
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	mg/kg	
EQL	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	0.05	0.05	
Location Code	Field ID																						
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF	<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	<0.05	<0.05
D07.02	SX_IB_20220518_15_50_SS_Duplicate_EUF	<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	<0.05	<0.05
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF	<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	<0.05	<0.05
D07.02	SX_IB_20220518_15_51_SS_Triplicate_ALS	<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	<0.05	<0.05
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF																						
D07.02	SX_IB_20220518_15_50_SS_Duplicate_EUF																						
RPD																							
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF																						
D07.02	SX_IB_20220518_15_51_SS_Triplicate_ALS																						
RPD																							
F09.01	SX_IB_20220518_07_55_SS_Primary_ALS		<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	<0.05	<0.30
F09.01	SX_IB_20220518_07_56_SS_Triplicate_EUF	<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	<0.05	<0.05
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F09.01	SX_IB_20220518_07_55_SS_Primary_ALS		<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	<0.05	<0.30
F09.01	SX_IB_20220518_07_56_SS_Triplicate_EUF																						
RPD																							
F09.01	SX_IB_20220518_07_55_SS_Primary_ALS																						
F09.01	SX_IB_20220518_07_56_SS_Triplicate_EUF																						
RPD																							
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF	<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	<0.05	<0.05
D04.02	SX_IB_20220519_15_57_SS_Duplicate_EUF	<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	<0.05	<0.05
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF	<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	<0.05	<0.05
D04.02	SX_IB_20220519_15_58_SS_Triplicate_ALS	<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	<0.05	<0.05
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF																						
D04.02	SX_IB_20220519_15_57_SS_Duplicate_EUF																						
RPD																							
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF																						
D04.02	SX_IB_20220519_15_57_SS_Duplicate_EUF																						
RPD																							
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF																						
D04.02	SX_IB_20220519_15_58_SS_Triplicate_ALS																						
RPD																							
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF	<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	<0.05	<0.05
D04.02	SX_IB_20220519_20_05_SS_Duplicate_EUF	<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	<0.05	<0.05
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF	<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	<0.05	<0.05
D04.02	SX_IB_20220519_20_06_SS_Triplicate_ALS	<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	<0.05	<0.05
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF																						
D04.02	SX_IB_20220519_20_05_SS_Duplicate_EUF																						
RPD																							
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF																						
D04.02	SX_IB_20220519_20_06_SS_Triplicate_ALS																						
RPD																							
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS		<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	<0.05	<0.30
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS		<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	<0.05	<0.30
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS		<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	<0.05	<0.30
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF	<0.5	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	31	<50	<50	<50	<0.05	<0.05	<0.05
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS		<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	<0.05	<0.30
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF		<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	<0.05	<0.30

PAHs (Sum of total)	BTEX							TRH							TPH					Aldrin	Dieldrin	Aldrin + Dieldrin	
	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)					
	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
RPD																							
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS																						
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS																						
RPD																							
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS																						
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF																						
RPD																							
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	<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	<0.05	<0.05
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF	<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	<0.05	<0.05
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	<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	<0.05	<0.05
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS		<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	<0.05	<0.30
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF																						
RPD																							
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF																						
RPD																							
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS																						
RPD																							
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS		<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	<0.05	<0.30
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS		<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	<0.05	<0.30
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS		<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	<0.05	<0.30
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF	<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	<0.05	<0.05
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS		<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	<0.05	<0.30
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF																						
RPD																							
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS																						
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS																						
RPD																							
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS																						
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF																						
RPD																							

\*RPDs have only been considered where a concentration is greater than 1 tim  
 \*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPD)  
 \*\*\*Interlab Duplicates are matched on a per compound basis as methods vary



		Organochlorine Pesticides																					
		DDD	DDT	4,4-DDE	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endrin	Endrin ketone	Endrin aldehyde	Endosulfan sulphate	chlordan	Chlordane (cis)	Chlordane (trans)	Hexachlorobenzene	Heptachlor	Heptachlor epoxide	α-BHC	β-BHC	δ-BHC	γ-BHC (Lindane)	Methoxychlor	Toxaphene
		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
RPD																							
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS																						
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS																						
RPD																							
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS																						
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF																						
RPD																							
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	<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	<0.05	<0.5
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF	<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	<0.05	<0.5
RPD		0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	<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	<0.05	<0.5
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS	<0.05	<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	<0.05	<0.5
RPD		0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF																						
RPD																							
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS																						
RPD																							
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	<0.05	<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	<0.05	<0.05
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS	<0.05	<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	<0.05	<0.05
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	<0.05	<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	<0.05	<0.05
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF	<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	<0.05	<0.5
RPD		0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	<0.05	<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	<0.05	<0.05
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF																						
RPD																							
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS																						
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS																						
RPD																							
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS																						
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF																						
RPD																							

\*RPDs have only been considered where a concentration is greater than 1 tim  
 \*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPD)  
 \*\*\*Interlab Duplicates are matched on a per compound basis as methods vary

		Phenols																				
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	2,4-Dinitrophenol	3&4-Methylphenol (m&p-creso)	
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	0.1	0.03	0.5	0.5	1	1	0.5	1	0.05	5	10	0.03	0.5	20	1	20	0.5	0.2	1	5	0.4	
Location Code	Field ID																					
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20		<0.5	<0.2	<1	<5	<0.4
D07.02	SX_IB_20220518_15_50_SS_Duplicate_EUF	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20		<0.5	<0.2	<1	<5	<0.4
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20		<0.5	<0.2	<1	<5	<0.4
D07.02	SX_IB_20220518_15_51_SS_Triplicate_ALS	<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	<5	<1
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF																					
D07.02	SX_IB_20220518_15_50_SS_Duplicate_EUF																					
RPD																						
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF																					
D07.02	SX_IB_20220518_15_51_SS_Triplicate_ALS																					
RPD																						
F09.01	SX_IB_20220518_07_55_SS_Primary_ALS	<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	<5	<1
F09.01	SX_IB_20220518_07_56_SS_Triplicate_EUF	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20		<0.5	<0.2	<1	<5	<0.4
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F09.01	SX_IB_20220518_07_55_SS_Primary_ALS	<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	<5	<1
F09.01	SX_IB_20220518_07_56_SS_Triplicate_EUF																					
RPD																						
F09.01	SX_IB_20220518_07_55_SS_Primary_ALS																					
F09.01	SX_IB_20220518_07_56_SS_Triplicate_EUF																					
RPD																						
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20		<0.5	<0.2	<1	<5	<0.4
D04.02	SX_IB_20220519_15_57_SS_Duplicate_EUF	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20		<0.5	<0.2	<1	<5	<0.4
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20		<0.5	<0.2	<1	<5	<0.4
D04.02	SX_IB_20220519_15_58_SS_Triplicate_ALS	<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	<5	<1
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF																					
D04.02	SX_IB_20220519_15_57_SS_Duplicate_EUF																					
RPD																						
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF																					
D04.02	SX_IB_20220519_15_57_SS_Duplicate_EUF																					
RPD																						
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF																					
D04.02	SX_IB_20220519_15_58_SS_Triplicate_ALS																					
RPD																						
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20		<0.5	<0.2	<1	<5	<0.4
D04.02	SX_IB_20220519_20_05_SS_Duplicate_EUF	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20		<0.5	<0.2	<1	<5	<0.4
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20		<0.5	<0.2	<1	<5	<0.4
D04.02	SX_IB_20220519_20_06_SS_Triplicate_ALS	<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	<5	<1
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF																					
D04.02	SX_IB_20220519_20_05_SS_Duplicate_EUF																					
RPD																						
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF																					
D04.02	SX_IB_20220519_20_05_SS_Duplicate_EUF																					
RPD																						
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF																					
D04.02	SX_IB_20220519_20_06_SS_Triplicate_ALS																					
RPD																						
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS	<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	<5	<1
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS	<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	<5	<1
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS	<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	<5	<1
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20		<0.5	<0.2	<1	<5	<0.4
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS	<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	<5	<1
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20		<0.5	<0.2	<1	<5	<0.4
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



		Phenols																					
		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	2,4-Dinitrophenol	3&4-Methylphenol (m&p-creso)
		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
RPD																							
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS																						
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS																						
RPD																							
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS																						
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF																						
RPD																							
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	<5	<10	<0.5	<20					<0.5	<0.2	<1	<5	<0.4
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	<5	<10	<0.5	<20					<0.5	<0.2	<1	<5	<0.4
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	<5	<10	<0.5	<20					<0.5	<0.2	<1	<5	<0.4
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS	<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5	<10	<0.03	<20	<1.00	<20	<1	<1	<1	<5	<1	
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF																						
RPD																							
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF																						
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS																						
RPD																							
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5	<10	<0.03	<20	<1.00	<20	<1	<1	<1	<5	<1	
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS	<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5	<10	<0.03	<20	<1.00	<20	<1	<1	<1	<5	<1	
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5	<10	<0.03	<20	<1.00	<20	<1	<1	<1	<5	<1	
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1	<5	<10	<0.5	<20	<1.00	<20	<1	<1	<1	<5	<1	<1	
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	<0.10	<0.03	<0.50	<0.50	<1.00	<1.00	<0.50	<1.00	<1.0	<0.05	<5	<10	<0.03	<20	<1.00	<20	<1	<1	<1	<5	<1	
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF																						
RPD																							
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS																						
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS																						
RPD																							
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS																						
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF																						
RPD																							

\*RPDs have only been considered where a concentration is greater than 1 tim  
 \*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPD  
 \*\*\*Interlab Duplicates are matched on a per compound basis as methods vary



		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 (NEFOSA)	N-ethyl-perfluorooctanesulfonamide acetic acid (NEFOSAA)	N-ethylperfluorooctanesulfonamide (NEFOSA)	N-Methyl perfluorooctane sulfonamide (NMeFOSA)	N-methylperfluorooctane sulfonamide (NMeFOSA)
		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
RPD							0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS						<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS						<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
RPD							0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS						<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF						<0.00001	<0.00001	<0.00005	<0.00001	<0.00005	<0.00001	<0.00005	<0.00001	<0.00005
RPD							0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	<5	<20	<0.5	<1	<20	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF	<5	<20	<0.5	<1	<20	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005
RPD							0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	<5	<20	<0.5	<1	<20	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS	<5	<20	<1	<1	<20	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005
RPD							0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF						<0.00001	<0.00001	<0.00005	<0.00001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF						<0.00001	<0.00001	<0.00005	<0.00001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
RPD							0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF						<0.00001	<0.00001	<0.00005	<0.00001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF						<0.00001	<0.00001	<0.00005	<0.00001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
RPD							0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF						<0.00001	<0.00001	<0.00005	<0.00001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS						<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
RPD							0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005
RPD							0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF	<5	<20	<0.5	<1	<20	<0.0005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005
RPD							0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF						<0.00001	<0.00001	<0.00005	<0.00001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
RPD							0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS						<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS						<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
RPD							0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS						<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF						<0.00001	<0.00001	<0.00005	<0.00001	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
RPD							0	0	0	0	0	0	0	0	0

\*RPDs have only been considered where a concentration is greater than 1 tim  
 \*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPD  
 \*\*\*Interlab Duplicates are matched on a per compound basis as methods vary







		acid (PFNS)(trace)	Perfluorooctanoic acid (PFDA)	Perfluorooctane sulfonamide (PFOSA)	Perfluoropentanoic acid (PFPeA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropropanesulfonic acid (PFPrS)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTriDA)	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	mg/L
RPD		0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS	<0.00001	<0.00001	<0.00005	<0.00002	<0.00002	<0.00002	<0.00005	<0.00002	<0.00002	<0.00001	<0.00001	<0.00001
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS	<0.00001	<0.00001	<0.00005	<0.00002	<0.00002	<0.00002	<0.00005	<0.00002	<0.00002	<0.00001	<0.00001	<0.00001
RPD		0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS	<0.00001	<0.00001	<0.00005	<0.00002	<0.00002	<0.00002	<0.00005	<0.00002	<0.00002	<0.00001	<0.00001	<0.00001
E02.02	SX_OB_20220519_08_01_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	<0.00001
RPD		0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_16_31_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	<0.005
E02.02	SX_OB_20220520_16_33_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	<0.005
RPD		0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_16_31_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	<0.005
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS	<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00005	<0.0050	<0.00002	<0.00001	<0.0050	<0.00001
RPD		0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_16_31_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	<0.00001
E02.02	SX_OB_20220520_16_33_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	<0.00001
RPD		0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_16_31_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	<0.00001
E02.02	SX_OB_20220520_16_33_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	<0.00001
RPD		0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_16_31_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	<0.00001
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS	<0.00001	<0.00001	<0.00005	<0.00002	<0.00002	<0.00002	<0.00005	<0.00002	<0.00002	<0.00001	<0.00001	<0.00001
RPD		0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00005	<0.0050	<0.00002	<0.00001	<0.0050	<0.00001
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS	<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00005	<0.0050	<0.00002	<0.00001	<0.0050	<0.00001
RPD		0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00005	<0.0050	<0.00002	<0.00001	<0.0050	<0.00001
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF	<0.005	<0.005	<0.00005	<0.005	<0.00002	<0.005	<0.00005	<0.005	<0.00002	<0.00001	<0.0050	<0.00001
RPD		0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00005	<0.0050	<0.00002	<0.00001	<0.0050	<0.00001
E02.02	SX_OB_20220520_08_35_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	<0.00001
RPD		0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	<0.00001	<0.00001	<0.00005	<0.00002	<0.00002	<0.00002	<0.00005	<0.00002	<0.00002	<0.00001	<0.00001	<0.00001
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS	<0.00001	<0.00001	<0.00005	<0.00002	<0.00002	<0.00002	<0.00005	<0.00002	<0.00002	<0.00001	<0.00001	<0.00001
RPD		0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	<0.00001	<0.00001	<0.00005	<0.00002	<0.00002	<0.00002	<0.00005	<0.00002	<0.00002	<0.00001	<0.00001	<0.00001
E02.02	SX_OB_20220520_08_35_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	<0.00001
RPD		0	0	0	0	0	0	0	0	0	0	0	0

\*RPDs have only been considered where a concentration is greater than 1 tim  
 \*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPD  
 \*\*\*Interlab Duplicates are matched on a per compound basis as methods vary







		Chlorinated I																			
		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	cis-1,3-dichloropropene	Dibromomethane	
		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	mg/kg	
RPD						0															
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS					<0.00010															
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS					<0.00010															
RPD						0															
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS					<0.00010															
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF		<0.00001		<0.00001	<0.0001															
RPD						0															
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	<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
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF	<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
RPD						0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	<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
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS	<0.0050				<0.00010	<0.0500		<0.50		<0.50				<0.50		<0.50		<0.50		<0.50
RPD						0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF		<0.00001		<0.00001	<0.0001															
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF		<0.00001		<0.00001	<0.0001															
RPD			0		0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF		<0.00001		<0.00001	<0.0001															
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF		<0.00001		<0.00001	<0.0001															
RPD			0		0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF		<0.00001		<0.00001	<0.0001															
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS					<0.00010															
RPD						0															
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	<0.0050				<0.00010	<0.0500		<0.50		<0.50				<0.50		<0.50		<0.50		<0.50
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS	<0.0050				<0.00010	<0.0500		<0.50		<0.50				<0.50		<0.50		<0.50		<0.50
RPD						0	0		0		0				0		0		0		0
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	<0.0050				<0.00010	<0.0500		<0.50		<0.50				<0.50		<0.50		<0.50		<0.50
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF	<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
RPD						0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS	<0.0050				<0.00010	<0.0500		<0.50		<0.50				<0.50		<0.50		<0.50		<0.50
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF		<0.00001		<0.00001	<0.0001															
RPD						0															
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS					<0.00010															
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS					<0.00010															
RPD						0															
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS					<0.00010															
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF		<0.00001		<0.00001	<0.0001															
RPD						0															

\*RPDs have only been considered where a concentration is greater than 1 tim  
 \*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPD  
 \*\*\*Interlab Duplicates are matched on a per compound basis as methods vary

		hydrocarbons														NA			PC				
		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	Arochlor 1248	Arochlor 1254	
		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	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	0.05		1	0.1	0.1	0.1	0.1
Location Code	Field ID																						
D07.02	SX_IB_20220518_15_46_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	<10			<0.1	<0.1	<0.1	<0.1
D07.02	SX_IB_20220518_15_50_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	<10			<0.1	<0.1	<0.1	<0.1
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0
D07.02	SX_IB_20220518_15_46_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	<10			<0.1	<0.1	<0.1	<0.1
D07.02	SX_IB_20220518_15_51_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	<0.50	<0.50	<0.50	<0.50	<10.0	<0.05	16.9				
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF																<0.05						
D07.02	SX_IB_20220518_15_50_SS_Duplicate_EUF																<0.05						
RPD																	0						
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF																<0.05						
D07.02	SX_IB_20220518_15_50_SS_Duplicate_EUF																<0.05						
RPD																	0						
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF																<0.05						
D07.02	SX_IB_20220518_15_51_SS_Triplicate_ALS																<0.05						
RPD																							
F09.01	SX_IB_20220518_07_55_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	<0.50	<0.50	<0.50	<0.50	<10.0	<0.05	25.8				
F09.01	SX_IB_20220518_07_56_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	<10			<0.1	<0.1	<0.1	<0.1
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
F09.01	SX_IB_20220518_07_55_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	<0.50	<0.50	<0.50	<0.50	<10.0	<0.05	25.8				
F09.01	SX_IB_20220518_07_56_SS_Triplicate_EUF																<0.05						
RPD																	0						
F09.01	SX_IB_20220518_07_55_SS_Primary_ALS																<0.05						
F09.01	SX_IB_20220518_07_56_SS_Triplicate_EUF																<0.05						
RPD																							
D04.02	SX_IB_20220519_15_57_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	<10			<0.1	<0.1	<0.1	<0.1
D04.02	SX_IB_20220519_15_57_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	<10			<0.1	<0.1	<0.1	<0.1
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0
D04.02	SX_IB_20220519_15_57_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	<10			<0.1	<0.1	<0.1	<0.1
D04.02	SX_IB_20220519_15_58_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	<0.50	<0.50	<0.50	<0.50	<10.0	<0.05	31.8				
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF																<0.05						
D04.02	SX_IB_20220519_15_57_SS_Duplicate_EUF																<0.05						
RPD																	0						
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF																<0.05						
D04.02	SX_IB_20220519_15_57_SS_Duplicate_EUF																<0.05						
RPD																	0						
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF																<0.05						
D04.02	SX_IB_20220519_15_58_SS_Triplicate_ALS																<0.05						
RPD																							
D04.02	SX_IB_20220519_20_05_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	<10			<0.1	<0.1	<0.1	<0.1
D04.02	SX_IB_20220519_20_05_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	<10			<0.1	<0.1	<0.1	<0.1
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0
D04.02	SX_IB_20220519_20_05_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	<10			<0.1	<0.1	<0.1	<0.1
D04.02	SX_IB_20220519_20_06_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	<0.50	<0.50	<0.50	<0.50	<10.0	<0.05	25.4				
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF																<0.05						
D04.02	SX_IB_20220519_20_05_SS_Duplicate_EUF																<0.05						
RPD																	0						
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF																<0.05						
D04.02	SX_IB_20220519_20_05_SS_Duplicate_EUF																<0.05						
RPD																	0						
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF																<0.05						
D04.02	SX_IB_20220519_20_06_SS_Triplicate_ALS																<0.05						
RPD																							
E02.02	SX_OB_20220519_07_59_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	<0.50	<0.50	<0.50	<0.50	<10.0	<0.05	30.6				
E02.02	SX_OB_20220519_08_00_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	<0.50	<0.50	<0.50	<0.50	<10.0	<0.05	28.2				
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			8			
E02.02	SX_OB_20220519_07_59_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	<0.50	<0.50	<0.50	<0.50	<10.0	<0.05	30.6				
E02.02	SX_OB_20220519_08_01_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	<10			<0.1	<0.1	<0.1	

hydrocarbons																	NA			PC			
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	Arochlor 1248	Arochlor 1254			
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	mg/kg	mg/kg		
RPD															0								
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS															<0.05							
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS															<0.05							
RPD															0								
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS															<0.05							
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF														<0.05								
RPD																							
E02.02	SX_OB_20220520_16_31_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	<10			<0.1	<0.1	<0.1	<0.1		
E02.02	SX_OB_20220520_16_33_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	<10			<0.1	<0.1	<0.1	<0.1		
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0		
E02.02	SX_OB_20220520_16_31_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	<10			<0.1	<0.1	<0.1	<0.1		
E02.02	SX_OB_20220520_16_34_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	<0.50	<0.50	<10.0	<0.05	30.4	<0.1	<0.1	<0.1	<0.1		
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0								
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF														<0.05								
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF														<0.05								
RPD															0								
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF														<0.05								
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS															<0.05							
RPD																							
E02.02	SX_OB_20220520_08_32_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	<0.50	<0.50	<10.0	<0.05	28.3						
E02.02	SX_OB_20220520_08_34_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	<0.50	<0.50	<10.0	<0.05	25.0						
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0			12					
E02.02	SX_OB_20220520_08_32_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	<0.50	<0.50	<10.0	<0.05	28.3						
E02.02	SX_OB_20220520_08_35_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	<10			<0.1	<0.1	<0.1	<0.1		
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0								
E02.02	SX_OB_20220520_08_32_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	<0.50	<0.50	<10.0	<0.05	28.3						
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF														<0.05								
RPD															0								
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS															<0.05							
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS															<0.05							
RPD															0								
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS															<0.05							
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF														<0.05								
RPD																							

\*RPDs have only been considered where a concentration is greater than 1 tim  
 \*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPD)  
 \*\*\*Interlab Duplicates are matched on a per compound basis as methods vary

Bs		Inorganics											Halogenated Benzenes							Halogenated Hydrocarbons		
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	Bromomethane	1,2-dibromoethane	
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	0.1	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	0.5	0.5	0.5
Location Code	Field ID																					
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1				8.7	110	26	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
D07.02	SX_IB_20220518_15_50_SS_Duplicate_EUF	<0.1	<0.1	<0.1	<0.1				8.9	180	27	<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				2	48	4	0	0	0	0	0	0	0	0	0	0	0
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1				8.7	110	26	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
D07.02	SX_IB_20220518_15_51_SS_Triplicate_ALS				<0.1	1.4	5.1	9.3	5.0		220	<5	<0.50	<0.50		<0.50		<0.50				
RPD					0						67	0	0	0		0		0				
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF						5.1		4.9													
D07.02	SX_IB_20220518_15_50_SS_Duplicate_EUF						5.1		4.9													
RPD							0		0													
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF						5.6		6.4													
D07.02	SX_IB_20220518_15_50_SS_Duplicate_EUF						8.7		6.2													
RPD							43		3													
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF						5.6		6.4													
D07.02	SX_IB_20220518_15_51_SS_Triplicate_ALS						10.1															
RPD							57															
F09.01	SX_IB_20220518_07_55_SS_Primary_ALS				<0.1	1.4	5.1	9.3	5.0		260	<5	<0.50	<0.50		<0.50		<0.50				
F09.01	SX_IB_20220518_07_56_SS_Triplicate_EUF	<0.1	<0.1	<0.1	<0.1					8.0	<100	24	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD					0						89	0	0	0		0		0				
F09.01	SX_IB_20220518_07_55_SS_Primary_ALS				<0.1	1.4	5.1	9.3	5.0		260	<5	<0.50	<0.50		<0.50		<0.50				
F09.01	SX_IB_20220518_07_56_SS_Triplicate_EUF						5.3		4.9													
RPD							4		2													
F09.01	SX_IB_20220518_07_55_SS_Primary_ALS						9.5															
F09.01	SX_IB_20220518_07_56_SS_Triplicate_EUF						6.9		6.2													
RPD							32															
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1					9.1	150	29	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
D04.02	SX_IB_20220519_15_57_SS_Duplicate_EUF	<0.1	<0.1	<0.1	<0.1					8.3	<100	28	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD		0	0	0	0					9	40	4	0	0	0	0	0	0	0	0	0	0
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1					9.1	150	29	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
D04.02	SX_IB_20220519_15_58_SS_Triplicate_ALS				<0.1	1.6	5.1	8.7	5.0		270	<5	<0.50	<0.50		<0.50		<0.50				
RPD					0						57	0	0	0		0		0				
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF						5.2		5.0													
D04.02	SX_IB_20220519_15_57_SS_Duplicate_EUF						5.2		5.0													
RPD							0		0													
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF						8.0		6.2													
D04.02	SX_IB_20220519_15_57_SS_Duplicate_EUF						8.2		6.2													
RPD							2		0													
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF						8.0		6.2													
D04.02	SX_IB_20220519_15_58_SS_Triplicate_ALS						9.5															
RPD							17															
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1					8.1	<100	24	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
D04.02	SX_IB_20220519_20_05_SS_Duplicate_EUF	<0.1	<0.1	<0.1	<0.1					8.1	<100	24	<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	0	0	0	0	0	0
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1					8.1	<100	24	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
D04.02	SX_IB_20220519_20_06_SS_Triplicate_ALS				<0.1	1.5	5.1	8.6	5.0		280	<5	<0.50	<0.50		<0.50		<0.50				
RPD					0						95	0	0	0		0		0				
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF						5.2		5.0													
D04.02	SX_IB_20220519_20_05_SS_Duplicate_EUF						5.2		5.0													
RPD							0		0													
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF						8.2		6.2													
D04.02	SX_IB_20220519_20_05_SS_Duplicate_EUF						8.2		6.2													
RPD							0		0													
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF						8.2		6.2													
D04.02	SX_IB_20220519_20_06_SS_Triplicate_ALS						9.6															
RPD							16															
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS				<0.1	1.0	5.1	7.9	5.0		230	<5	<0.50	<0.50		<0.50		<0.50				
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS				<0.1	1.8	5.1	8.1	5.0		250	<5	<0.50	<0.50		<0.50		<0.50				
RPD					0	57	0	2	0		8	0	0	0		0		0				
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS				<0.1	1.0	5.1	7.9	5.0		230	<5	<0.50	<0.50		<0.50		<0.50				
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF	<0.1	<0.1	<0.1	<0.1					8.2	<100	36	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD					0						79	0	0	0		0		0				
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS				<0.1	1.0	5.1	7.9	5.0		230	<5	<0.50	<0.50		<0.50		<0.50				
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF						5.2		5.0													

Bs		Inorganics											Halogenated Benzenes						Halogenated Hydrocarbons				
		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	Bromomethane	1,2-dibromoethane
		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
RPD																							
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS							2															
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS							9.4															
RPD								3															
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS							9.4															
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF							7.5															
RPD								22															
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1					7.8	110	32	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF	<0.1	<0.1	<0.1	<0.1					7.8	140	33	<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	24	3	0	0	0	0	0	0	0	0	0	0	0
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1					7.8	110	32	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS				<0.1	1.6	0.1	8.5	5.0		170		<5	<0.50	<0.50		<0.50		<0.50				
RPD					0						43		0	0	0	0			0				
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF							5.2	5.0														
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF							5.1	5.0														
RPD								2	0														
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF							8.2	5.9														
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF							8.2	5.9														
RPD								0	0														
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF							8.2	5.9														
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS							9.1															
RPD								10															
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS				<0.1	1.6	5.2	8.9	5.0		190		<5	<0.50	<0.50		<0.50		<0.50				
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS				<0.1	1.6	5.1	8.9	5.0		200		<5	<0.50	<0.50		<0.50		<0.50				
RPD					0	0	2	0	0		5		0	0	0	0			0				
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS				<0.1	1.6	5.2	8.9	5.0		190		<5	<0.50	<0.50		<0.50		<0.50				
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF	<0.1	<0.1	<0.1	<0.1					7.8	160	31	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD					0						17		0	0	0	0			0				
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS				<0.1	1.6	5.2	8.9	5.0		190		<5	<0.50	<0.50		<0.50		<0.50				
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF							5.2	5.0														
RPD								0	0														
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS							7.5															
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS							9.3															
RPD								21															
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS							7.5															
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF							8.3	5.9														
RPD								10															

\*RPDs have only been considered where a concentration is greater than 1 tim  
 \*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPT  
 \*\*\*Interlab Duplicates are matched on a per compound basis as methods vary

	rbons		MAH						Solvents					SPOCAS
	Dichlorodifluoromethane	Trichlorofluoromethane	Total MAH	Monocyclic aromatic hydrocarbons EPA/Vic	1,3,5-trimethylbenzene	Styrene	Isopropylbenzene	1,2,4-trimethylbenzene	4-Methyl-2-pentanone	Acetone	Allyl chloride	Carbon disulfide	Methyl Ethyl Ketone	pH (CaCl2)
EQL	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	-
	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

Location Code	Field ID	Dichlorodifluoromethane	Trichlorofluoromethane	Total MAH	Monocyclic aromatic hydrocarbons EPA/Vic	1,3,5-trimethylbenzene	Styrene	Isopropylbenzene	1,2,4-trimethylbenzene	4-Methyl-2-pentanone	Acetone	Allyl chloride	Carbon disulfide	Methyl Ethyl Ketone	pH (CaCl2)
D07.02	SX_IB_20220518_15_46_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	
D07.02	SX_IB_20220518_15_50_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	
RPD		0	0	0		0	0	0	0	0	0	0	0	0	
D07.02	SX_IB_20220518_15_46_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	
D07.02	SX_IB_20220518_15_51_SS_Triplicate_ALS				<0.5		<0.5								8.5
RPD							0								
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF														
D07.02	SX_IB_20220518_15_50_SS_Duplicate_EUF														
RPD															
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF														
D07.02	SX_IB_20220518_15_50_SS_Duplicate_EUF														
RPD															
D07.02	SX_IB_20220518_15_46_SS_Primary_EUF														
D07.02	SX_IB_20220518_15_51_SS_Triplicate_ALS														
RPD															
F09.01	SX_IB_20220518_07_55_SS_Primary_ALS				<0.5		<0.5								7.7
F09.01	SX_IB_20220518_07_56_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	
RPD							0								
F09.01	SX_IB_20220518_07_55_SS_Primary_ALS				<0.5		<0.5								7.7
F09.01	SX_IB_20220518_07_56_SS_Triplicate_EUF														
RPD															
F09.01	SX_IB_20220518_07_55_SS_Primary_ALS														
F09.01	SX_IB_20220518_07_56_SS_Triplicate_EUF														
RPD															
D04.02	SX_IB_20220519_15_57_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	
D04.02	SX_IB_20220519_15_57_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	
RPD		0	0	0		0	0	0	0	0	0	0	0	0	
D04.02	SX_IB_20220519_15_57_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	
D04.02	SX_IB_20220519_15_58_SS_Triplicate_ALS				<0.5		<0.5								7.6
RPD							0								
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF														
D04.02	SX_IB_20220519_15_57_SS_Duplicate_EUF														
RPD															
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF														
D04.02	SX_IB_20220519_15_57_SS_Duplicate_EUF														
RPD															
D04.02	SX_IB_20220519_15_57_SS_Primary_EUF														
D04.02	SX_IB_20220519_15_58_SS_Triplicate_ALS														
RPD															
D04.02	SX_IB_20220519_20_05_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	
D04.02	SX_IB_20220519_20_05_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	
RPD		0	0	0		0	0	0	0	0	0	0	0	0	
D04.02	SX_IB_20220519_20_05_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	
D04.02	SX_IB_20220519_20_06_SS_Triplicate_ALS				<0.5		<0.5								7.7
RPD							0								
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF														
D04.02	SX_IB_20220519_20_05_SS_Duplicate_EUF														
RPD															
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF														
D04.02	SX_IB_20220519_20_05_SS_Duplicate_EUF														
RPD															
D04.02	SX_IB_20220519_20_05_SS_Primary_EUF														
D04.02	SX_IB_20220519_20_06_SS_Triplicate_ALS														
RPD															
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS				<0.5		<0.5								7.9
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS				<0.5		<0.5								7.7
RPD					0		0								3
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS				<0.5		<0.5								7.9
E02.02	SX_OB_20220519_08_01_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	
RPD							0								
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS				<0.5		<0.5								7.9
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF														

		rbons		MAH					Solvents					SPOCAS	
		Dichlorodifluoromethane	Trichlorofluoromethane	Total MAH	Monocyclic aromatic hydrocarbons EPA/Vic	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	-
RPD															
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS														
E02.02	SX_OB_20220519_08_00_SS_Duplicate_ALS														
RPD															
E02.02	SX_OB_20220519_07_59_SS_Primary_ALS														
E02.02	SX_OB_20220519_08_01_SS_Triplicate_EUF														
RPD															
E02.02	SX_OB_20220520_16_31_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	
E02.02	SX_OB_20220520_16_33_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	
RPD		0	0	0		0	0	0	0	0	0	0	0	0	
E02.02	SX_OB_20220520_16_31_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	
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS				<0.5		<0.5								7.7
RPD							0								
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF														
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF														
RPD															
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF														
E02.02	SX_OB_20220520_16_33_SS_Duplicate_EUF														
RPD															
E02.02	SX_OB_20220520_16_31_SS_Primary_EUF														
E02.02	SX_OB_20220520_16_34_SS_Triplicate_ALS														
RPD															
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS				<0.5		<0.5								7.9
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS				<0.5		<0.5								7.8
RPD					0		0								1
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS				<0.5		<0.5								7.9
E02.02	SX_OB_20220520_08_35_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	
RPD							0								
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS				<0.5		<0.5								7.9
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF														
RPD															
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS														
E02.02	SX_OB_20220520_08_34_SS_Duplicate_ALS														
RPD															
E02.02	SX_OB_20220520_08_32_SS_Primary_ALS														
E02.02	SX_OB_20220520_08_35_SS_Triplicate_EUF														
RPD															

\*RPDs have only been considered where a concentration is greater than 1 tim  
 \*\*Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPD)  
 \*\*\*Interlab Duplicates are matched on a per compound basis as methods vary

# TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	E02.0220220601102636_01	This report is attached as part of a WCR form referencing <u>WGT-302-000-WKN-CJH-105-SWI-0001_01</u>
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ATTACHMENT B: 95% UCL AVE CALCULATIONS



A	B	C	D	E	F	G	H	I	J	K	L
1	<b>UCL Statistics for Data Sets with Non-Detects</b>										
2											
3	User Selected Options										
4	Date/Time of Computation		ProUCL 5.11/06/2022 3:10:42 PM								
5	From File		WorkSheet_b.xls								
6	Full Precision		OFF								
7	Confidence Coefficient		95%								
8	Number of Bootstrap Operations		2000								
9											
10											
11	<b>Arsenic</b>										
12											
13	<b>General Statistics</b>										
14	Total Number of Observations			19		Number of Distinct Observations			17		
15						Number of Missing Observations			0		
16	Minimum			18		Mean			55.26		
17	Maximum			200		Median			44		
18	SD			44.95		Std. Error of Mean			10.31		
19	Coefficient of Variation			0.813		Skewness			2.575		
20											
21	<b>Normal GOF Test</b>										
22	Shapiro Wilk Test Statistic			0.635		<b>Shapiro Wilk GOF Test</b>					
23	5% Shapiro Wilk Critical Value			0.901		Data Not Normal at 5% Significance Level					
24	Lilliefors Test Statistic			0.353		<b>Lilliefors GOF Test</b>					
25	5% Lilliefors Critical Value			0.197		Data Not Normal at 5% Significance Level					
26	<b>Data Not Normal at 5% Significance Level</b>										
27											
28	<b>Assuming Normal Distribution</b>										
29	<b>95% Normal UCL</b>					<b>95% UCLs (Adjusted for Skewness)</b>					
30	95% Student's-t UCL			73.15		95% Adjusted-CLT UCL (Chen-1995)			78.74		
31						95% Modified-t UCL (Johnson-1978)			74.16		
32											
33	<b>Gamma GOF Test</b>										
34	A-D Test Statistic			1.37		<b>Anderson-Darling Gamma GOF Test</b>					
35	5% A-D Critical Value			0.749		Data Not Gamma Distributed at 5% Significance Level					
36	K-S Test Statistic			0.262		<b>Kolmogorov-Smirnov Gamma GOF Test</b>					
37	5% K-S Critical Value			0.2		Data Not Gamma Distributed at 5% Significance Level					
38	<b>Data Not Gamma Distributed at 5% Significance Level</b>										
39											
40	<b>Gamma Statistics</b>										
41	k hat (MLE)			2.748		k star (bias corrected MLE)			2.349		
42	Theta hat (MLE)			20.11		Theta star (bias corrected MLE)			23.53		
43	nu hat (MLE)			104.4		nu star (bias corrected)			89.26		
44	MLE Mean (bias corrected)			55.26		MLE Sd (bias corrected)			36.06		
45						Approximate Chi Square Value (0.05)			68.48		
46	Adjusted Level of Significance			0.0369		Adjusted Chi Square Value			66.89		
47											
48	<b>Assuming Gamma Distribution</b>										
49	95% Approximate Gamma UCL (use when n>=50))			72.04		95% Adjusted Gamma UCL (use when n<50)			73.75		
50											
51	<b>Lognormal GOF Test</b>										
52	Shapiro Wilk Test Statistic			0.887		<b>Shapiro Wilk Lognormal GOF Test</b>					
53	5% Shapiro Wilk Critical Value			0.901		Data Not Lognormal at 5% Significance Level					
54	Lilliefors Test Statistic			0.212		<b>Lilliefors Lognormal GOF Test</b>					
55	5% Lilliefors Critical Value			0.197		Data Not Lognormal at 5% Significance Level					
56	<b>Data Not Lognormal at 5% Significance Level</b>										
57											
58	<b>Lognormal Statistics</b>										
59	Minimum of Logged Data			2.89		Mean of logged Data			3.819		
60	Maximum of Logged Data			5.298		SD of logged Data			0.58		
61											

A	B	C	D	E	F	G	H	I	J	K	L
62	<b>Assuming Lognormal Distribution</b>										
63	95% H-UCL			71.7	90% Chebyshev (MVUE) UCL			75.64			
64	95% Chebyshev (MVUE) UCL			85.73	97.5% Chebyshev (MVUE) UCL			99.74			
65	99% Chebyshev (MVUE) UCL			127.3							
66											
67	<b>Nonparametric Distribution Free UCL Statistics</b>										
68	<b>Data do not follow a Discernible Distribution (0.05)</b>										
69											
70	<b>Nonparametric Distribution Free UCLs</b>										
71	95% CLT UCL			72.23	95% Jackknife UCL			73.15			
72	95% Standard Bootstrap UCL			71.64	95% Bootstrap-t UCL			109.9			
73	95% Hall's Bootstrap UCL			177.9	95% Percentile Bootstrap UCL			73.16			
74	95% BCA Bootstrap UCL			79.74							
75	90% Chebyshev(Mean, Sd) UCL			86.2	95% Chebyshev(Mean, Sd) UCL			100.2			
76	97.5% Chebyshev(Mean, Sd) UCL			119.7	99% Chebyshev(Mean, Sd) UCL			157.9			
77											
78	<b>Suggested UCL to Use</b>										
79	95% Chebyshev (Mean, Sd) UCL			100.2							
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	<b>Copper</b>										
88											
89	<b>General Statistics</b>										
90	Total Number of Observations			19	Number of Distinct Observations			16			
91					Number of Missing Observations			0			
92	Minimum			46	Mean			63.47			
93	Maximum			110	Median			59			
94	SD			15.09	Std. Error of Mean			3.463			
95	Coefficient of Variation			0.238	Skewness			1.854			
96											
97	<b>Normal GOF Test</b>										
98	Shapiro Wilk Test Statistic			0.825	<b>Shapiro Wilk GOF Test</b>						
99	5% Shapiro Wilk Critical Value			0.901	Data Not Normal at 5% Significance Level						
100	Lilliefors Test Statistic			0.223	<b>Lilliefors GOF Test</b>						
101	5% Lilliefors Critical Value			0.197	Data Not Normal at 5% Significance Level						
102	<b>Data Not Normal at 5% Significance Level</b>										
103											
104	<b>Assuming Normal Distribution</b>										
105	<b>95% Normal UCL</b>				<b>95% UCLs (Adjusted for Skewness)</b>						
106	95% Student's-t UCL			69.48	95% Adjusted-CLT UCL (Chen-1995)			70.74			
107					95% Modified-t UCL (Johnson-1978)			69.72			
108											
109	<b>Gamma GOF Test</b>										
110	A-D Test Statistic			0.813	<b>Anderson-Darling Gamma GOF Test</b>						
111	5% A-D Critical Value			0.74	Data Not Gamma Distributed at 5% Significance Level						
112	K-S Test Statistic			0.2	<b>Kolmogorov-Smirnov Gamma GOF Test</b>						
113	5% K-S Critical Value			0.198	Data Not Gamma Distributed at 5% Significance Level						
114	<b>Data Not Gamma Distributed at 5% Significance Level</b>										
115											
116	<b>Gamma Statistics</b>										
117	k hat (MLE)			22.34	k star (bias corrected MLE)			18.85			
118	Theta hat (MLE)			2.841	Theta star (bias corrected MLE)			3.367			
119	nu hat (MLE)			849	nu star (bias corrected)			716.3			
120	MLE Mean (bias corrected)			63.47	MLE Sd (bias corrected)			14.62			
121					Approximate Chi Square Value (0.05)			655.2			
122	Adjusted Level of Significance			0.0369	Adjusted Chi Square Value			650.1			
123											
124	<b>Assuming Gamma Distribution</b>										
125	95% Approximate Gamma UCL (use when n>=50))			69.39	95% Adjusted Gamma UCL (use when n<50)			69.94			
126											

A	B	C	D	E	F	G	H	I	J	K	L
127	<b>Lognormal GOF Test</b>										
128	Shapiro Wilk Test Statistic		0.909		<b>Shapiro Wilk Lognormal GOF Test</b>						
129	5% Shapiro Wilk Critical Value		0.901		Data appear Lognormal at 5% Significance Level						
130	Lilliefors Test Statistic		0.186		<b>Lilliefors Lognormal GOF Test</b>						
131	5% Lilliefors Critical Value		0.197		Data appear Lognormal at 5% Significance Level						
132	<b>Data appear Lognormal at 5% Significance Level</b>										
133											
134	<b>Lognormal Statistics</b>										
135	Minimum of Logged Data		3.829		Mean of logged Data				4.128		
136	Maximum of Logged Data		4.7		SD of logged Data				0.21		
137											
138	<b>Assuming Lognormal Distribution</b>										
139	95% H-UCL		69.3		90% Chebyshev (MVUE) UCL				72.58		
140	95% Chebyshev (MVUE) UCL		76.76		97.5% Chebyshev (MVUE) UCL				82.55		
141	99% Chebyshev (MVUE) UCL		93.93								
142											
143	<b>Nonparametric Distribution Free UCL Statistics</b>										
144	<b>Data appear to follow a Discernible Distribution at 5% Significance Level</b>										
145											
146	<b>Nonparametric Distribution Free UCLs</b>										
147	95% CLT UCL		69.17		95% Jackknife UCL				69.48		
148	95% Standard Bootstrap UCL		68.93		95% Bootstrap-t UCL				72.51		
149	95% Hall's Bootstrap UCL		75.89		95% Percentile Bootstrap UCL				69.42		
150	95% BCA Bootstrap UCL		70.89								
151	90% Chebyshev(Mean, Sd) UCL		73.86		95% Chebyshev(Mean, Sd) UCL				78.57		
152	97.5% Chebyshev(Mean, Sd) UCL		85.1		99% Chebyshev(Mean, Sd) UCL				97.93		
153											
154	<b>Suggested UCL to Use</b>										
155	95% Student's-t UCL		69.48		or 95% Modified-t UCL				69.72		
156	or 95% H-UCL		69.3								
157											
158	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
159	Recommendations are based upon data size, data distribution, and skewness.										
160	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).										
161	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
162											
163	<b>ProUCL computes and outputs H-statistic based UCLs for historical reasons only.</b>										
164	<b>H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.</b>										
165	<b>It is therefore recommended to avoid the use of H-statistic based 95% UCLs.</b>										
166	<b>Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.</b>										
167											
168											
169	<b>Nickel</b>										
170											
171	<b>General Statistics</b>										
172	Total Number of Observations		19		Number of Distinct Observations				16		
173					Number of Missing Observations				0		
174	Minimum		109		Mean				159.7		
175	Maximum		270		Median				150		
176	SD		42.13		Std. Error of Mean				9.665		
177	Coefficient of Variation		0.264		Skewness				1.296		
178											
179	<b>Normal GOF Test</b>										
180	Shapiro Wilk Test Statistic		0.866		<b>Shapiro Wilk GOF Test</b>						
181	5% Shapiro Wilk Critical Value		0.901		Data Not Normal at 5% Significance Level						
182	Lilliefors Test Statistic		0.234		<b>Lilliefors GOF Test</b>						
183	5% Lilliefors Critical Value		0.197		Data Not Normal at 5% Significance Level						
184	<b>Data Not Normal at 5% Significance Level</b>										
185											
186	<b>Assuming Normal Distribution</b>										
187	<b>95% Normal UCL</b>					<b>95% UCLs (Adjusted for Skewness)</b>					
188	95% Student's-t UCL		176.4		95% Adjusted-CLT UCL (Chen-1995)				178.7		
189					95% Modified-t UCL (Johnson-1978)				176.9		
190											

A	B	C	D	E	F	G	H	I	J	K	L
191	<b>Gamma GOF Test</b>										
192	A-D Test Statistic		0.756		<b>Anderson-Darling Gamma GOF Test</b>						
193	5% A-D Critical Value		0.741		Data Not Gamma Distributed at 5% Significance Level						
194	K-S Test Statistic		0.202		<b>Kolmogorov-Smirnov Gamma GOF Test</b>						
195	5% K-S Critical Value		0.198		Data Not Gamma Distributed at 5% Significance Level						
196	<b>Data Not Gamma Distributed at 5% Significance Level</b>										
197											
198	<b>Gamma Statistics</b>										
199	k hat (MLE)		17.36		k star (bias corrected MLE)		14.65				
200	Theta hat (MLE)		9.2		Theta star (bias corrected MLE)		10.9				
201	nu hat (MLE)		659.6		nu star (bias corrected)		556.8				
202	MLE Mean (bias corrected)		159.7		MLE Sd (bias corrected)		41.72				
203					Approximate Chi Square Value (0.05)		503				
204	Adjusted Level of Significance		0.0369		Adjusted Chi Square Value		498.6				
205											
206	<b>Assuming Gamma Distribution</b>										
207	95% Approximate Gamma UCL (use when n>=50))		176.7		95% Adjusted Gamma UCL (use when n<50)		178.3				
208											
209	<b>Lognormal GOF Test</b>										
210	Shapiro Wilk Test Statistic		0.927		<b>Shapiro Wilk Lognormal GOF Test</b>						
211	5% Shapiro Wilk Critical Value		0.901		Data appear Lognormal at 5% Significance Level						
212	Lilliefors Test Statistic		0.186		<b>Lilliefors Lognormal GOF Test</b>						
213	5% Lilliefors Critical Value		0.197		Data appear Lognormal at 5% Significance Level						
214	<b>Data appear Lognormal at 5% Significance Level</b>										
215											
216	<b>Lognormal Statistics</b>										
217	Minimum of Logged Data		4.691		Mean of logged Data		5.044				
218	Maximum of Logged Data		5.598		SD of logged Data		0.241				
219											
220	<b>Assuming Lognormal Distribution</b>										
221	95% H-UCL		176.9		90% Chebyshev (MVUE) UCL		186.1				
222	95% Chebyshev (MVUE) UCL		198.2		97.5% Chebyshev (MVUE) UCL		214.9				
223	99% Chebyshev (MVUE) UCL		247.8								
224											
225	<b>Nonparametric Distribution Free UCL Statistics</b>										
226	<b>Data appear to follow a Discernible Distribution at 5% Significance Level</b>										
227											
228	<b>Nonparametric Distribution Free UCLs</b>										
229	95% CLT UCL		175.6		95% Jackknife UCL		176.4				
230	95% Standard Bootstrap UCL		175.1		95% Bootstrap-t UCL		181.6				
231	95% Hall's Bootstrap UCL		180.9		95% Percentile Bootstrap UCL		175				
232	95% BCA Bootstrap UCL		179.2								
233	90% Chebyshev(Mean, Sd) UCL		188.7		95% Chebyshev(Mean, Sd) UCL		201.8				
234	97.5% Chebyshev(Mean, Sd) UCL		220		99% Chebyshev(Mean, Sd) UCL		255.9				
235											
236	<b>Suggested UCL to Use</b>										
237	95% Student's-t UCL		176.4		or 95% Modified-t UCL		176.9				
238	or 95% H-UCL		176.9								
239											
240	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.										
241	Recommendations are based upon data size, data distribution, and skewness.										
242	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).										
243	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.										
244											
245	<b>ProUCL computes and outputs H-statistic based UCLs for historical reasons only.</b>										
246	<b>H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.</b>										
247	<b>It is therefore recommended to avoid the use of H-statistic based 95% UCLs.</b>										
248	<b>Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.</b>										
249											

# TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	E02.0220220601102636_01	This report is attached as part of a WCR form referencing <u>WGT-302-000-WKN-CJH-105-SWI-0001_01</u>
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ATTACHMENT C: LABORATORY CERTIFICATES

Company	AGON Environmental - Tunnel Spoil Testing	Project No	JC0827	Project Manager	Craig Trimbur	Sampler(s)	Dayle B - EP Risk
Address	Unit H76, 63-65 Turner St, Port Melbourne VIC 3207	Project Name	WGTP-Tunnel Ref: 20220518044707-Eurofin-21	EDD Format	ESdat	Handed over by	
Contact Name	Craig Trimbur David Lawson	Analysis	Spoil Sample Preparation			Email for Invoice	finance@agenenviro.com.au LabReports.TST@agenenviro.com.au
Phone No	+61 400 926 907 (Craig) +61 490 411 004 (David)	Special Directions	Submit WGTP-RF (FRAH/PAH/Phenols/OCF/PCB/PCP/Very Chlorinated Metals (As, Cd, Cr, Cu, Ni, Pb, Ag, Sn, Mo, Se, Zn)/Cr6+/CNV Total Fluoride) pH PFAS Extended Suite - 0.1-5ug/kg ASLP PH I - PFAS 0.01-0.05 ug/l ASLP Phragipol - PFAS 0.01-0.05ug/l			Email for Results	LabReports.TST@agenenviro.com.au agenenvironmental@esdat.com.au mothublabresults@wgtp.com.au Amrit.Kaur@agile-analytics.com.au
Purchase Order		Quote ID No	Agon WGTP TST			Containers	Required Turnaround Time (TAT) Overnight will be 5 days if not 1-3 day

No	Client Sample ID	Sampled Date/Time	Matrix	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	50mL PFAS bottle	Jar (Class or HDPE)	Other (specify AS/NZS 4550:2001)	Sample Comments / Dangerous Goods Hazard Warning
1	SX_IB_20220518_07_56_SS_Triplicate_EUF	18/05/2022 07:58	S	X	X	X	X	X				1
2	SX_IB_20220518_08_00_SS_Primary_EUF	18/05/2022 08:00	S	X	X	X	X	X				1
3	SX_IB_20220518_08_29_SB_Blank_EUF	18/05/2022 08:29	W				X					1
4	SX_IB_20220518_08_27_SR_Rinsate_EUF	18/05/2022 08:27	W				X					1
5	SX_OB_20220518_12_31_SS_Primary_EUF	18/05/2022 12:31	S	X	X	X	X	X				1
6	SX_IB_20220518_12_40_SS_Primary_EUF	18/05/2022 12:40	S	X	X	X	X	X				1
7	SX_IB_20220518_15_46_SS_Primary_EUF	18/05/2022 15:46	S	X	X	X	X	X				1
8	SX_IB_20220518_15_50_SS_Duplicate_EUF	18/05/2022 15:50	S	X	X	X	X	X				1
9	SX_OB_20220518_18_54_SS_Primary_EUF	18/05/2022 18:54	S	X	X	X	X	X				1
10	SX_IB_20220518_00_05_SS_Primary_EUF	08/05/2022 00:05	S	X	X	X	X	X				1
11	SX_IB_20220518_04_05_SS_Primary_EUF	18/05/2022 04:05	S	X	X	X	X	X				1
12	SX_OB_20220518_04_18_SS_Primary_EUF	18/05/2022 04:18	S	X	X	X	X	X				1
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												

Method of Shipment:  Courier #  Hand Delivered  Postal

Signature: *Hannick* Date: 19/5/22 Time: 13:03

Received By: *Jake* Date: 19/5 Time: 1:05 Temperature: 13.03

Signature: *[Signature]* Date: 19/5 Time: 1:05 Report No: 889872

Dandenong

889872

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: **David Lawson**

Report **889872-L**  
Project name **20220519044707-Eurofin-21**  
Project ID **JC0927**  
Received Date **May 19, 2022**

Client Sample ID			SX_IB_202205 18_07_56_SS Triplicate_EUF	SX_IB_202205 18_08_00_SS Primary_EUF	SX_OB_20220 518_12_31_SS _Primary_EUF	SX_IB_202205 18_12_40_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- My0045141	M22- My0045142	M22- My0045143	M22- My0045144
Date Sampled			May 18, 2022	May 18, 2022	May 18, 2022	May 18, 2022
Test/Reference	LOR	Unit				
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		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	4.9	4.9	4.9	4.9
pH (off)	0.1	pH Units	5.3	5.3	5.2	5.2
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	107	87	103	127
13C5-PFPeA (surr.)	1	%	72	64	71	82
13C5-PFHxA (surr.)	1	%	94	75	102	109
13C4-PFHpA (surr.)	1	%	82	70	99	96
13C8-PFOA (surr.)	1	%	60	63	109	65
13C5-PFNA (surr.)	1	%	77	68	80	99
13C6-PFDA (surr.)	1	%	91	78	97	111
13C2-PFUnDA (surr.)	1	%	100	82	80	115
13C2-PFDoDA (surr.)	1	%	113	94	96	123
13C2-PFTeDA (surr.)	1	%	122	120	100	121
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			SX_IB_202205 18_07_56_SS TriPLICATE_EUF	SX_IB_202205 18_08_00_SS Primary_EUF	SX_OB_20220 518_12_31_SS Primary_EUF	SX_IB_202205 18_12_40_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- My0045141	M22- My0045142	M22- My0045143	M22- My0045144
Date Sampled			May 18, 2022	May 18, 2022	May 18, 2022	May 18, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl sulfonamido substances</b>						
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	93	74	89	111
D3-N-MeFOSA (surr.)	1	%	112	117	75	151
D5-N-EtFOSA (surr.)	1	%	106	101	70	134
D7-N-MeFOSE (surr.)	1	%	87	100	71	102
D9-N-EtFOSE (surr.)	1	%	122	105	111	139
D5-N-EtFOSAA (surr.)	1	%	106	108	128	122
D3-N-MeFOSAA (surr.)	1	%	113	85	100	123
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	55	62	82	56
18O2-PFHxS (surr.)	1	%	85	72	85	93
13C8-PFOS (surr.)	1	%	85	69	87	109
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	85	71	67	110
13C2-6:2 FTSA (surr.)	1	%	80	66	59	94
13C2-8:2 FTSA (surr.)	1	%	54	73	56	64
13C2-10:2 FTSA (surr.)	1	%	102	80	75	104
<b>PFASs Summations</b>						
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_IB_202205 18_15_46_SS Primary_EUF	SX_IB_202205 18_15_50_SS Duplicate_EUF	SX_OB_20220 518_19_54_SS Primary_EUF	SX_IB_202205 19_00_05_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- My0045145	M22- My0045146	M22- My0045147	M22- My0045148
Date Sampled			May 18, 2022	May 18, 2022	May 18, 2022	May 09, 2022
Test/Reference	LOR	Unit				
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		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	4.9	4.9	4.9	4.9
pH (off)	0.1	pH Units	5.1	5.1	5.1	5.1
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	107	98	62	86
13C5-PFPeA (surr.)	1	%	73	60	69	56
13C5-PFHxA (surr.)	1	%	89	82	62	70
13C4-PFHpA (surr.)	1	%	77	77	65	84
13C8-PFOA (surr.)	1	%	59	56	62	68
13C5-PFNA (surr.)	1	%	76	76	68	62
13C6-PFDA (surr.)	1	%	87	93	83	81
13C2-PFUnDA (surr.)	1	%	91	86	80	76
13C2-PFDoDA (surr.)	1	%	99	94	53	73
13C2-PFTeDA (surr.)	1	%	103	120	71	122
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	88	75	52	79
D3-N-MeFOSA (surr.)	1	%	106	93	39	83
D5-N-EtFOSA (surr.)	1	%	110	93	40	78
D7-N-MeFOSE (surr.)	1	%	103	95	53	62
D9-N-EtFOSE (surr.)	1	%	114	102	73	101
D5-N-EtFOSAA (surr.)	1	%	102	115	57	87
D3-N-MeFOSAA (surr.)	1	%	87	81	60	81

Client Sample ID			SX_IB_202205 18_15_46_SS Primary_EUF	SX_IB_202205 18_15_50_SS Duplicate_EUF	SX_OB_20220 518_19_54_SS _Primary_EUF	SX_IB_202205 19_00_05_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- My0045145	M22- My0045146	M22- My0045147	M22- My0045148
Date Sampled			May 18, 2022	May 18, 2022	May 18, 2022	May 09, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	50	56	52	68
18O2-PFHxS (surr.)	1	%	84	82	70	71
13C8-PFOS (surr.)	1	%	83	85	50	62
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	87	83	55	68
13C2-6:2 FTSA (surr.)	1	%	76	68	69	78
13C2-8:2 FTSA (surr.)	1	%	56	57	61	60
13C2-10:2 FTSA (surr.)	1	%	108	77	62	69
<b>PFASs Summations</b>						
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_IB_202205 19_04_05_SS Primary_EUF	SX_OB_20220 519_04_18_SS _Primary_EUF	SX_IB_202205 18_07_56_SS TriPLICATE_EUF	SX_IB_202205 18_08_00_SS Primary_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- My0045149	M22- My0045150	M22- My0045151	M22- My0045152
Date Sampled			May 19, 2022	May 19, 2022	May 18, 2022	May 18, 2022
Test/Reference	LOR	Unit				
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		comment	1.0	1.0	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	4.9	4.9	6.2	6.2
pH (off)	0.1	pH Units	5.1	5.1	6.9	7.3

Client Sample ID			SX_IB_202205 19_04_05_SS_ Primary_EUF	SX_OB_20220 519_04_18_SS _Primary_EUF	SX_IB_202205 18_07_56_SS TriPLICATE_EUF	SX_IB_202205 18_08_00_SS Primary_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- My0045149	M22- My0045150	M22- My0045151	M22- My0045152
Date Sampled			May 19, 2022	May 19, 2022	May 18, 2022	May 18, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	87	68	125	141
13C5-PFPeA (surr.)	1	%	51	68	111	95
13C5-PFHxA (surr.)	1	%	60	106	52	77
13C4-PFHpA (surr.)	1	%	81	104	121	124
13C8-PFOA (surr.)	1	%	94	51	139	134
13C5-PFNA (surr.)	1	%	68	64	126	144
13C6-PFDA (surr.)	1	%	77	73	140	130
13C2-PFUnDA (surr.)	1	%	70	77	116	130
13C2-PFDoDA (surr.)	1	%	79	94	127	132
13C2-PFTTeDA (surr.)	1	%	120	137	115	125
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	73	78	128	149
D3-N-MeFOSA (surr.)	1	%	73	60	38	53
D5-N-EtFOSA (surr.)	1	%	77	69	31	47
D7-N-MeFOSE (surr.)	1	%	76	95	111	120
D9-N-EtFOSE (surr.)	1	%	86	113	131	139
D5-N-EtFOSAA (surr.)	1	%	83	114	97	97
D3-N-MeFOSAA (surr.)	1	%	91	68	128	139
<b>Perfluoroalkyl sulfonic acids (PFSAs)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			SX_IB_202205 19_04_05_SS Primary_EUF	SX_OB_20220 519_04_18_SS Primary_EUF	SX_IB_202205 18_07_56_SS TriPLICATE_EUF	SX_IB_202205 18_08_00_SS Primary_EUF
Sample Matrix			AUS Leachate - pH 5.0	AUS Leachate - pH 5.0	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- My0045149	M22- My0045150	M22- My0045151	M22- My0045152
Date Sampled			May 19, 2022	May 19, 2022	May 18, 2022	May 18, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	60	85	107	106
18O2-PFHxS (surr.)	1	%	75	79	144	119
13C8-PFOS (surr.)	1	%	74	68	112	131
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	66	54	111	93
13C2-6:2 FTSA (surr.)	1	%	55	72	169	69
13C2-8:2 FTSA (surr.)	1	%	58	56	116	125
13C2-10:2 FTSA (surr.)	1	%	71	95	128	163
<b>PFASs Summations</b>						
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_20220 518_12_31_SS Primary_EUF	SX_IB_202205 18_12_40_SS Primary_EUF	SX_IB_202205 18_15_46_SS Primary_EUF	SX_IB_202205 18_15_50_SS Duplicate_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- My0045153	M22- My0045154	M22- My0045155	M22- My0045156
Date Sampled			May 18, 2022	May 18, 2022	May 18, 2022	May 18, 2022
Test/Reference	LOR	Unit				
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		comment	4.0	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	6.2	6.2	6.4	6.2
pH (off)	0.1	pH Units	7.5	8.2	5.6	8.7
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			SX_OB_20220 518_12_31_SS _Primary_EUF	SX_IB_202205 18_12_40_SS _Primary_EUF	SX_IB_202205 18_15_46_SS _Primary_EUF	SX_IB_202205 18_15_50_SS _Duplicate_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- My0045153	M22- My0045154	M22- My0045155	M22- My0045156
Date Sampled			May 18, 2022	May 18, 2022	May 18, 2022	May 18, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	110	131	79	133
13C5-PFPeA (surr.)	1	%	109	97	62	101
13C5-PFHxA (surr.)	1	%	134	65	29	58
13C4-PFHpA (surr.)	1	%	107	121	73	139
13C8-PFOA (surr.)	1	%	111	148	100	127
13C5-PFNA (surr.)	1	%	107	131	89	134
13C6-PFDA (surr.)	1	%	119	146	61	142
13C2-PFUnDA (surr.)	1	%	116	129	56	125
13C2-PFDoDA (surr.)	1	%	123	124	97	127
13C2-PFTeDA (surr.)	1	%	129	125	32	107
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	129	138	23	132
D3-N-MeFOSA (surr.)	1	%	79	41	17	59
D5-N-EtFOSA (surr.)	1	%	82	40	12	53
D7-N-MeFOSE (surr.)	1	%	111	116	10	126
D9-N-EtFOSE (surr.)	1	%	128	118	16	139
D5-N-EtFOSAA (surr.)	1	%	80	108	70	92
D3-N-MeFOSAA (surr.)	1	%	122	131	56	136
<b>Perfluoroalkyl sulfonic acids (PFSAs)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	130	102	90	126
18O2-PFHxS (surr.)	1	%	121	104	107	145
13C8-PFOS (surr.)	1	%	120	136	71	118

<b>Client Sample ID</b>			<a href="#">SX_OB_20220518_12_31_SS_Primary_EUF</a>	<a href="#">SX_IB_20220518_12_40_SS_Primary_EUF</a>	<a href="#">SX_IB_20220518_15_46_SS_Primary_EUF</a>	<a href="#">SX_IB_20220518_15_50_SS_Duplicate_EUF</a>
<b>Sample Matrix</b>			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
<b>Eurofins Sample No.</b>			M22-My0045153	M22-My0045154	M22-My0045155	M22-My0045156
<b>Date Sampled</b>			May 18, 2022	May 18, 2022	May 18, 2022	May 18, 2022
<b>Test/Reference</b>	LOR	Unit				
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	110	97	80	104
13C2-6:2 FTSA (surr.)	1	%	139	114	115	165
13C2-8:2 FTSA (surr.)	1	%	82	116	42	91
13C2-10:2 FTSA (surr.)	1	%	134	127	54	135
<b>PFASs Summations</b>						
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

<b>Client Sample ID</b>			<a href="#">SX_OB_20220519_00_54_SS_Primary_EUF</a>	<a href="#">SX_IB_20220519_00_05_SS_Primary_EUF</a>	<a href="#">SX_IB_20220519_04_05_SS_Primary_EUF</a>	<a href="#">SX_OB_20220519_04_18_SS_Primary_EUF</a>
<b>Sample Matrix</b>			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
<b>Eurofins Sample No.</b>			M22-My0045157	M22-My0045158	M22-My0045159	M22-My0045160
<b>Date Sampled</b>			May 18, 2022	May 09, 2022	May 19, 2022	May 19, 2022
<b>Test/Reference</b>	LOR	Unit				
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		comment	4.0	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	6.2	6.2	6.2	6.2
pH (off)	0.1	pH Units	8.0	8.3	8.4	8.3
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	94	127	127	85
13C5-PFPeA (surr.)	1	%	93	82	109	91



Client Sample ID			SX_OB_20220 518_19_54_SS _Primary_EUF	SX_IB_202205 19_00_05_SS _Primary_EUF	SX_IB_202205 19_04_05_SS _Primary_EUF	SX_OB_20220 519_04_18_SS _Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- My0045157	M22- My0045158	M22- My0045159	M22- My0045160
Date Sampled			May 18, 2022	May 09, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
13C5-PFHxA (surr.)	1	%	62	63	57	81
13C4-PFHpA (surr.)	1	%	94	129	131	91
13C8-PFOA (surr.)	1	%	96	147	145	87
13C5-PFNA (surr.)	1	%	92	126	121	89
13C6-PFDA (surr.)	1	%	88	138	134	92
13C2-PFUnDA (surr.)	1	%	86	150	137	89
13C2-PFDoDA (surr.)	1	%	102	145	134	95
13C2-PFTeDA (surr.)	1	%	96	136	117	91
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	102	152	140	100
D3-N-MeFOSA (surr.)	1	%	71	121	60	72
D5-N-EtFOSA (surr.)	1	%	69	124	53	70
D7-N-MeFOSE (surr.)	1	%	91	159	102	101
D9-N-EtFOSE (surr.)	1	%	106	158	123	108
D5-N-EtFOSAA (surr.)	1	%	82	107	101	72
D3-N-MeFOSAA (surr.)	1	%	103	169	142	104
<b>Perfluoroalkyl sulfonic acids (PFSAs)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	97	126	135	99
18O2-PFHxS (surr.)	1	%	105	130	106	96
13C8-PFOS (surr.)	1	%	99	127	127	83
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			<a href="#">SX_OB_20220518_19_54_SS_Primary_EUF</a>	<a href="#">SX_IB_20220519_00_05_SS_Primary_EUF</a>	<a href="#">SX_IB_20220519_04_05_SS_Primary_EUF</a>	<a href="#">SX_OB_20220519_04_18_SS_Primary_EUF</a>
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-My0045157	M22-My0045158	M22-My0045159	M22-My0045160
Date Sampled			May 18, 2022	May 09, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
13C2-4:2 FTSA (surr.)	1	%	148	105	110	124
13C2-6:2 FTSA (surr.)	1	%	97	112	82	94
13C2-8:2 FTSA (surr.)	1	%	68	117	118	75
13C2-10:2 FTSA (surr.)	1	%	96	151	140	85
<b>PFASs Summations</b>						
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



**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) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	May 19, 2022	0 Days
pH (Leachate fluid) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	May 19, 2022	0 Days
pH (off) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	May 19, 2022	0 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 24, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 24, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFASs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 24, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 24, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 19, 2022	

<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	May 19, 2022 1:05 PM
<b>Address:</b>	3/224 Glen Osmond Road Fullarton SA 5063	<b>Report #:</b>	889872	<b>Due:</b>	May 26, 2022
<b>Project Name:</b>	20220519044707-Eurofin-21	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	SX_IB_20220518_07_56_SS_Triplicate_EU_F	May 18, 2022	7:56AM	Soil	M22-My0045129		X	X	X
2	SX_IB_20220518_08_00_SS_Primary_EUF	May 18, 2022	8:00AM	Soil	M22-My0045130		X	X	X
3	SX_IB_20220518_08_29_SB_Blank_EUF	May 18, 2022	8:29AM	Water	M22-My0045131			X	
4	SX_IB_20220518_08_27_SR	May 18, 2022	8:27AM	Water	M22-My0045132			X	

**Company Name:** Agon Environmental Pty Ltd - VIC  
**Address:** 3/224 Glen Osmond Road  
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SA 5063  
  
**Project Name:** 20220519044707-Eurofin-21  
**Project ID:** JC0927

**Order No.:**  
**Report #:** 889872  
**Phone:** 08 8338 1009  
**Fax:**

**Received:** May 19, 2022 1:05 PM  
**Due:** May 26, 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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	_Rinsate_EUF								
5	SX_OB_20220518_12_31_SS_Primary_EUF	May 18, 2022	12:31PM	Soil	M22-My0045133		X	X	X
6	SX_IB_20220518_12_40_SS_Primary_EUF	May 18, 2022	12:40PM	Soil	M22-My0045134		X	X	X
7	SX_IB_20220518_15_46_SS_Primary_EUF	May 18, 2022	3:46PM	Soil	M22-My0045135		X	X	X
8	SX_IB_20220518_15_50_SS_Duplicate_EUF	May 18, 2022	3:50PM	Soil	M22-My0045136		X	X	X

**Company Name:** Agon Environmental Pty Ltd - VIC  
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**Project Name:** 20220519044707-Eurofin-21  
**Project ID:** JC0927

**Order No.:**  
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**Received:** May 19, 2022 1:05 PM  
**Due:** May 26, 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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	_Duplicate_EU F								
9	SX_OB_20220518_19_54_S_S_Primary_EUF	May 18, 2022	7:54PM	Soil	M22-My0045137		X	X	X
10	SX_IB_20220519_00_05_SS_Primary_EUF	May 09, 2022	12:05AM	Soil	M22-My0045138		X	X	X
11	SX_IB_20220519_04_05_SS_Primary_EUF	May 19, 2022	4:05AM	Soil	M22-My0045139		X	X	X
12	SX_OB_20220519_04_18_S	May 19, 2022	4:18AM	Soil	M22-My0045140		X	X	X

<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	May 19, 2022 1:05 PM
<b>Address:</b>	3/224 Glen Osmond Road Fullarton SA 5063	<b>Report #:</b>	889872	<b>Due:</b>	May 26, 2022
<b>Project Name:</b>	20220519044707-Eurofin-21	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	S_Primary_EU F								
13	SX_IB_202205 18_07_56_SS _Triplicate_EU F	May 18, 2022	7:56AM	AUS Leachate - pH 5.0	M22- My0045141	X		X	
14	SX_IB_202205 18_08_00_SS _Primary_EUF	May 18, 2022	8:00AM	AUS Leachate - pH 5.0	M22- My0045142	X		X	
15	SX_OB_20220 518_12_31_S S_Primary_EU F	May 18, 2022	12:31PM	AUS Leachate - pH 5.0	M22- My0045143	X		X	
16	SX_IB_202205	May 18, 2022	12:40PM	AUS Leachate	M22-	X		X	

<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	May 19, 2022 1:05 PM
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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
16	SX_IB_20220518_12_40_SS_Primary_EUF	May 18, 2022	12:40PM	AUS Leachate - pH 5.0	M22-My0045144				
17	SX_IB_20220518_15_46_SS_Primary_EUF	May 18, 2022	3:46PM	AUS Leachate - pH 5.0	M22-My0045145	X		X	
18	SX_IB_20220518_15_50_SS_Duplicate_EUF	May 18, 2022	3:50PM	AUS Leachate - pH 5.0	M22-My0045146	X		X	
19	SX_OB_20220518_19_54_S_S_Primary_EUF	May 18, 2022	7:54PM	AUS Leachate - pH 5.0	M22-My0045147	X		X	

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<b>Project Name:</b>	20220519044707-Eurofin-21	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
20	SX_IB_20220519_00_05_SS_Primary_EUF	May 09, 2022	12:05AM	AUS Leachate - pH 5.0	M22-My0045148	X		X	
21	SX_IB_20220519_04_05_SS_Primary_EUF	May 19, 2022	4:05AM	AUS Leachate - pH 5.0	M22-My0045149	X		X	
22	SX_OB_20220519_04_18_SS_Primary_EUF	May 19, 2022	4:18AM	AUS Leachate - pH 5.0	M22-My0045150	X		X	
23	SX_IB_20220518_07_56_SS_Triplicate_EUF	May 18, 2022	7:56AM	AUS Leachate - Reagent Water	M22-My0045151	X		X	

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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
24	SX_IB_20220518_08_00_SS_Primary_EUF	May 18, 2022	8:00AM	AUS Leachate - Reagent Water	M22-My0045152	X		X	
25	SX_OB_20220518_12_31_S_Primary_EUF	May 18, 2022	12:31PM	AUS Leachate - Reagent Water	M22-My0045153	X		X	
26	SX_IB_20220518_12_40_SS_Primary_EUF	May 18, 2022	12:40PM	AUS Leachate - Reagent Water	M22-My0045154	X		X	
27	SX_IB_20220518_15_46_SS_Primary_EUF	May 18, 2022	3:46PM	AUS Leachate - Reagent Water	M22-My0045155	X		X	
28	SX_IB_202205	May 18, 2022	3:50PM	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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	18_15_50_SS_Duplicate_EU_F			- Reagent Water	My0045156				
29	SX_OB_20220518_19_54_SS_Primary_EU_F	May 18, 2022	7:54PM	AUS Leachate - Reagent Water	M22-My0045157	X		X	
30	SX_IB_20220519_00_05_SS_Primary_EUF	May 09, 2022	12:05AM	AUS Leachate - Reagent Water	M22-My0045158	X		X	
31	SX_IB_20220519_04_05_SS_Primary_EUF	May 19, 2022	4:05AM	AUS Leachate - Reagent Water	M22-My0045159	X		X	
32	SX_OB_20220519_04_05_SS_Primary_EUF	May 19, 2022	4:18AM	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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
32	SX_OB_20220519_04_18_SS_Primary_EUF	May 19, 2022	4:18AM	AUS Leachate - Reagent Water	M22-My0045160				
<b>Test Counts</b>						20	10	32	10

## Internal Quality Control Review and Glossary

### General

- 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.
- All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
- Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
- 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

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

### Terms

<b>APHA</b>	American Public Health Association
<b>COC</b>	Chain of Custody
<b>CP</b>	Client Parent - QC was performed on samples pertaining to this report
<b>CRM</b>	Certified Reference Material (ISO17034) - reported as percent recovery.
<b>Dry</b>	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
<b>Duplicate</b>	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
<b>LOR</b>	Limit of Reporting.
<b>LCS</b>	Laboratory Control Sample - reported as percent recovery.
<b>Method Blank</b>	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.
<b>NCP</b>	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.
<b>RPD</b>	Relative Percent Difference between two Duplicate pieces of analysis.
<b>SPIKE</b>	Addition of the analyte to the sample and reported as percentage recovery.
<b>SRA</b>	Sample Receipt Advice
<b>Surr - Surrogate</b>	The addition of a like compound to the analyte target and reported as percentage recovery.
<b>TBTO</b>	Tributyltin oxide ( <i>bis</i> -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.
<b>TCLP</b>	Toxicity Characteristic Leaching Procedure
<b>TEQ</b>	Toxic Equivalency Quotient or Total Equivalence
<b>QSM</b>	US Department of Defense Quality Systems Manual Version 5.4
<b>US EPA</b>	United States Environmental Protection Agency
<b>WA DWER</b>	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

- 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.
- 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.
- 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.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- 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
<b>Method Blank</b>						
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
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 (PFTTrDA)	ug/L	< 0.01		0.01	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/L	< 0.01		0.01	Pass	
<b>Method Blank</b>						
<b>Perfluoroalkyl sulfonamido substances</b>						
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	
<b>Method Blank</b>						
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
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	
<b>Method Blank</b>						
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
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	
<b>LCS - % Recovery</b>						
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA)	%	99		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	73		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	78		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	69		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	64		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	74		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	83		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	78		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	97		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	117		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	85		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code		
<b>LCS - % Recovery</b>									
<b>Perfluoroalkyl sulfonamido substances</b>									
Perfluorooctane sulfonamide (FOSA)	%	84			50-150	Pass			
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	97			50-150	Pass			
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	138			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)	%	128			50-150	Pass			
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	78			50-150	Pass			
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	64			50-150	Pass			
<b>LCS - % Recovery</b>									
<b>Perfluoroalkyl sulfonic acids (PFSA's)</b>									
Perfluorobutanesulfonic acid (PFBS)	%	58			50-150	Pass			
Perfluorononanesulfonic acid (PFNS)	%	75			50-150	Pass			
Perfluoropropanesulfonic acid (PFPrS)	%	77			50-150	Pass			
Perfluoropentanesulfonic acid (PFPeS)	%	83			50-150	Pass			
Perfluorohexanesulfonic acid (PFHxS)	%	78			50-150	Pass			
Perfluoroheptanesulfonic acid (PFHpS)	%	78			50-150	Pass			
Perfluorooctanesulfonic acid (PFOS)	%	86			50-150	Pass			
Perfluorodecanesulfonic acid (PFDS)	%	93			50-150	Pass			
<b>LCS - % Recovery</b>									
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)</b>									
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	84			50-150	Pass			
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	91			50-150	Pass			
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	148			50-150	Pass			
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	66			50-150	Pass			
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
<b>Duplicate</b>									
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>									
				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	M22-My0045142	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	M22-My0045142	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	M22-My0045142	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-My0045142	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	M22-My0045142	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	M22-My0045142	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M22-My0045142	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-My0045142	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-My0045142	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-My0045142	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-My0045142	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
<b>Duplicate</b>									
<b>Perfluoroalkyl sulfonamido substances</b>									
				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	M22-My0045142	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0045142	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0045142	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0045142	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0045142	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	

<b>Duplicate</b>								
<b>Perfluoroalkyl sulfonamido substances</b>				Result 1	Result 2	RPD		
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0045142	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0045142	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
<b>Duplicate</b>								
<b>Perfluoroalkyl sulfonic acids (PFSAs)</b>				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-My0045142	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-My0045142	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-My0045142	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-My0045142	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-My0045142	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0045142	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-My0045142	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-My0045142	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
<b>Duplicate</b>								
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-My0045142	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0045142	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0045142	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0045142	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
<b>Duplicate</b>								
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-My0045151	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-My0045151	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-My0045151	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-My0045151	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-My0045151	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-My0045151	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-My0045151	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-My0045151	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-My0045151	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-My0045151	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-My0045151	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-My0045151	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0045151	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0045151	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0045151	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0045151	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0045151	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0045151	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-My0045151	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-My0045151	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-My0045151	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-My0045151	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-My0045151	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0045151	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-My0045151	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-My0045151	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-My0045151	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0045151	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0045151	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0045151	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCA)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-My0045153	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-My0045153	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-My0045153	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-My0045153	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-My0045153	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-My0045153	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-My0045153	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-My0045153	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-My0045153	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTTrDA)	M22-My0045153	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTEDA)	M22-My0045153	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass



Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-My0045153	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0045153	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0045153	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0045153	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0045153	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0045153	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0045153	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-My0045153	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-My0045153	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-My0045153	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-My0045153	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-My0045153	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0045153	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-My0045153	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-My0045153	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-My0045153	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0045153	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0045153	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0045153	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:**

Michael Cassidy	Analytical Services Manager
Joseph Edouard	Senior Analyst-PFAS
Mary Makarios	Senior Analyst-Sample Properties



**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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Agon Environmental Pty Ltd - VIC  
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SA 5063



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Site Number 1254

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equivalence of testing, medical testing, calibration,  
inspection, proficiency testing scheme providers and  
reference materials producers reports and certificates.

Attention: **David Lawson**

Report **889872-S**  
Project name **20220519044707-Eurofin-21**  
Project ID **JC0927**  
Received Date **May 19, 2022**

Client Sample ID			SX_IB_202205 18_07_56_SS TriPLICATE_EUF	SX_IB_202205 18_08_00_SS Primary_EUF	SX_OB_20220 518_12_31_SS _Primary_EUF	SX_IB_202205 18_12_40_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0045129	M22- My0045130	M22- My0045133	M22- My0045134
Date Sampled			May 18, 2022	May 18, 2022	May 18, 2022	May 18, 2022
Test/Reference	LOR	Unit				
<b>Total Recoverable Hydrocarbons</b>						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	38	< 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 <sup>N02</sup>	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) <sup>N04</sup>	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) <sup>N01</sup>	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
<b>Volatile Organics</b>						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
<b>Volatile Organics</b>						
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

Client Sample ID			SX_IB_202205 18_07_56_SS TriPLICATE_EUF	SX_IB_202205 18_08_00_SS Primary_EUF	SX_OB_20220 518_12_31_SS _Primary_EUF	SX_IB_202205 18_12_40_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0045129	M22- My0045130	M22- My0045133	M22- My0045134
Date Sampled			May 18, 2022	May 18, 2022	May 18, 2022	May 18, 2022
Test/Reference	LOR	Unit				
<b>Volatile Organics</b>						
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	%	111	105	125	111
Toluene-d8 (surr.)	1	%	117	113	116	108
<b>Polycyclic Aromatic Hydrocarbons</b>						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SX_IB_202205 18_07_56_SS TriPLICATE_EUF	SX_IB_202205 18_08_00_SS Primary_EUF	SX_OB_20220 518_12_31_SS _Primary_EUF	SX_IB_202205 18_12_40_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0045129	M22- My0045130	M22- My0045133	M22- My0045134
Date Sampled			May 18, 2022	May 18, 2022	May 18, 2022	May 18, 2022
Test/Reference	LOR	Unit				
<b>Polycyclic Aromatic Hydrocarbons</b>						
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 <sup>N07</sup>	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	%	58	113	71	121
p-Terphenyl-d14 (surr.)	1	%	97	97	86	118
<b>Organochlorine Pesticides</b>						
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	%	112	112	50	120
Tetrachloro-m-xylene (surr.)	1	%	109	105	82	121

Client Sample ID			SX_IB_202205 18_07_56_SS TriPLICATE_EUF	SX_IB_202205 18_08_00_SS Primary_EUF	SX_OB_20220 518_12_31_SS _Primary_EUF	SX_IB_202205 18_12_40_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0045129	M22- My0045130	M22- My0045133	M22- My0045134
Date Sampled			May 18, 2022	May 18, 2022	May 18, 2022	May 18, 2022
Test/Reference	LOR	Unit				
<b>Polychlorinated Biphenyls</b>						
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	%	112	112	50	120
Tetrachloro-m-xylene (surr.)	1	%	109	105	82	121
<b>Phenols (Halogenated)</b>						
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
<b>Phenols (non-Halogenated)</b>						
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	%	Q <sup>09</sup> int	82	92	73
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
<b>Chromium (hexavalent)</b>						
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
<b>Cyanide (total)</b>						
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
<b>Fluoride (Total)</b>						
Fluoride (Total)	100	mg/kg	< 100	< 100	130	< 100
<b>pH (1:5 Aqueous extract at 25°C as rec.)</b>						
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	8.0	8.4	8.1	8.4
<b>% Moisture</b>						
% Moisture	1	%	24	29	30	25
<b>Heavy Metals</b>						
Arsenic	2	mg/kg	24	32	42	36
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	120	140	150	130
Copper	5	mg/kg	63	65	89	63
Lead	5	mg/kg	< 5	< 5	6.6	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_IB_202205 18_07_56_SS TriPLICATE_EUF	SX_IB_202205 18_08_00_SS Primary_EUF	SX_OB_20220 518_12_31_SS _Primary_EUF	SX_IB_202205 18_12_40_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0045129	M22- My0045130	M22- My0045133	M22- My0045134
Date Sampled			May 18, 2022	May 18, 2022	May 18, 2022	May 18, 2022
Test/Reference	LOR	Unit				
<b>Heavy Metals</b>						
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	210	210	240	210
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	130	160	110
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTeDA) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	77	74	99	76
13C5-PFPeA (surr.)	1	%	74	99	77	101
13C5-PFHxA (surr.)	1	%	77	79	93	74
13C4-PFHpA (surr.)	1	%	84	78	93	84
13C8-PFOA (surr.)	1	%	74	83	105	89
13C5-PFNA (surr.)	1	%	85	82	88	83
13C6-PFDA (surr.)	1	%	105	97	123	100
13C2-PFUnDA (surr.)	1	%	98	89	92	81
13C2-PFDoDA (surr.)	1	%	91	89	93	98
13C2-PFTeDA (surr.)	1	%	85	110	101	93
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	99	96	111	101
D3-N-MeFOSA (surr.)	1	%	113	111	108	103
D5-N-EtFOSA (surr.)	1	%	89	86	98	89
D7-N-MeFOSE (surr.)	1	%	93	105	154	111
D9-N-EtFOSE (surr.)	1	%	85	93	84	93
D5-N-EtFOSAA (surr.)	1	%	115	141	71	86
D3-N-MeFOSAA (surr.)	1	%	103	100	110	124

Client Sample ID			SX_IB_202205 18_07_56_SS TriPLICATE_EUF	SX_IB_202205 18_08_00_SS Primary_EUF	SX_OB_20220 518_12_31_SS _Primary_EUF	SX_IB_202205 18_12_40_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0045129	M22- My0045130	M22- My0045133	M22- My0045134
Date Sampled			May 18, 2022	May 18, 2022	May 18, 2022	May 18, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	76	90	101	82
18O2-PFHxS (surr.)	1	%	111	70	112	118
13C8-PFOS (surr.)	1	%	69	80	130	82
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	89	84	90	104
13C2-6:2 FTSA (surr.)	1	%	136	141	98	120
13C2-8:2 FTSA (surr.)	1	%	114	118	97	116
13C2-10:2 FTSA (surr.)	1	%	87	166	97	134
<b>PFASs Summations</b>						
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_IB_202205 18_15_46_SS Primary_EUF	SX_IB_202205 18_15_50_SS Duplicate_EUF	SX_OB_20220 518_19_54_SS _Primary_EUF	SX_IB_202205 19_00_05_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0045135	M22- My0045136	M22- My0045137	M22- My0045138
Date Sampled			May 18, 2022	May 18, 2022	May 18, 2022	May 09, 2022
Test/Reference	LOR	Unit				
<b>Total Recoverable Hydrocarbons</b>						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	37
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 <sup>N02</sup>	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) <sup>N04</sup>	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50



Client Sample ID			SX_IB_202205 18_15_46_SS_ Primary_EUF	SX_IB_202205 18_15_50_SS_ Duplicate_EUF	SX_OB_20220 518_19_54_SS_ Primary_EUF	SX_IB_202205 19_00_05_SS_ Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0045135	M22- My0045136	M22- My0045137	M22- My0045138
Date Sampled			May 18, 2022	May 18, 2022	May 18, 2022	May 09, 2022
Test/Reference	LOR	Unit				
<b>Total Recoverable Hydrocarbons</b>						
TRH >C10-C16 less Naphthalene (F2) <sup>N01</sup>	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
<b>Volatile Organics</b>						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
<b>Volatile Organics</b>						
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
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



Client Sample ID			SX_IB_202205 18_15_46_SS Primary_EUF	SX_IB_202205 18_15_50_SS Duplicate_EUF	SX_IB_202205 19_00_05_SS Primary_EUF	SX_IB_202205 19_00_05_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0045135	M22- My0045136	M22- My0045137	M22- My0045138
Date Sampled			May 18, 2022	May 18, 2022	May 18, 2022	May 09, 2022
Test/Reference	LOR	Unit				
<b>Volatile Organics</b>						
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	%	95	91	88	128
Toluene-d8 (surr.)	1	%	101	89	85	118
<b>Polycyclic Aromatic Hydrocarbons</b>						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene <sup>N07</sup>	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	%	76	104	101	73
p-Terphenyl-d14 (surr.)	1	%	78	118	101	86
<b>Organochlorine Pesticides</b>						
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

Client Sample ID			SX_IB_202205 18_15_46_SS Primary_EUF	SX_IB_202205 18_15_50_SS Duplicate_EUF	SX_IB_202205 19_05_54_SS Primary_EUF	SX_IB_202205 19_05_05_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0045135	M22- My0045136	M22- My0045137	M22- My0045138
Date Sampled			May 18, 2022	May 18, 2022	May 18, 2022	May 09, 2022
Test/Reference	LOR	Unit				
<b>Organochlorine Pesticides</b>						
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	%	107	150	108	53
Tetrachloro-m-xylene (surr.)	1	%	110	103	138	80
<b>Polychlorinated Biphenyls</b>						
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	%	107	150	108	53
Tetrachloro-m-xylene (surr.)	1	%	110	103	138	80
<b>Phenols (Halogenated)</b>						
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

Client Sample ID			SX_IB_202205 18_15_46_SS Primary_EUF	SX_IB_202205 18_15_50_SS Duplicate_EUF	SX_OB_20220 518_19_54_SS _Primary_EUF	SX_IB_202205 19_00_05_SS Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0045135	M22- My0045136	M22- My0045137	M22- My0045138
Date Sampled			May 18, 2022	May 18, 2022	May 18, 2022	May 09, 2022
Test/Reference	LOR	Unit				
<b>Phenols (non-Halogenated)</b>						
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	%	82	54	146	87
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
<b>Chromium (hexavalent)</b>						
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
<b>Cyanide (total)</b>						
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
<b>Fluoride (Total)</b>						
Fluoride (Total)	100	mg/kg	110	180	< 100	140
<b>pH (1:5 Aqueous extract at 25°C as rec.)</b>						
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	8.7	8.9	7.9	10
<b>% Moisture</b>						
% Moisture	1	%	26	27	27	29
<b>Heavy Metals</b>						
Arsenic	2	mg/kg	34	43	48	43
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	140	140	89	170
Copper	5	mg/kg	67	74	53	100
Lead	5	mg/kg	< 5	< 5	< 5	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	220	220	140	260
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	130	93	160
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTTrDA) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	74	75	72	70
13C5-PFPeA (surr.)	1	%	59	90	70	108
13C5-PFHxA (surr.)	1	%	75	80	73	75

Client Sample ID			SX_IB_202205 18_15_46_SS_ Primary_EUF	SX_IB_202205 18_15_50_SS_ Duplicate_EUF	SX_OB_20220 518_19_54_SS_ _Primary_EUF	SX_IB_202205 19_00_05_SS_ Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0045135	M22- My0045136	M22- My0045137	M22- My0045138
Date Sampled			May 18, 2022	May 18, 2022	May 18, 2022	May 09, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
13C4-PFHpA (surr.)	1	%	83	89	73	81
13C8-PFOA (surr.)	1	%	84	80	80	69
13C5-PFNA (surr.)	1	%	94	85	82	88
13C6-PFDA (surr.)	1	%	63	113	81	91
13C2-PFUnDA (surr.)	1	%	82	90	97	87
13C2-PFDoDA (surr.)	1	%	96	106	85	78
13C2-PFTeDA (surr.)	1	%	95	142	141	90
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	104	104	88	100
D3-N-MeFOSA (surr.)	1	%	111	107	118	107
D5-N-EtFOSA (surr.)	1	%	103	101	93	94
D7-N-MeFOSE (surr.)	1	%	115	98	88	90
D9-N-EtFOSE (surr.)	1	%	97	100	90	91
D5-N-EtFOSAA (surr.)	1	%	93	120	112	96
D3-N-MeFOSAA (surr.)	1	%	113	90	126	100
<b>Perfluoroalkyl sulfonic acids (PFSA)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	91	84	92	96
18O2-PFHxS (surr.)	1	%	106	94	106	123
13C8-PFOS (surr.)	1	%	72	85	61	80
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	74	97	88	89
13C2-6:2 FTSA (surr.)	1	%	112	121	98	131

Client Sample ID			SX_IB_202205 18_15_46_SS_ Primary_EUF	SX_IB_202205 18_15_50_SS_ Duplicate_EUF	SX_OB_20220 518_19_54_SS_ _Primary_EUF	SX_IB_202205 19_00_05_SS_ Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0045135	M22- My0045136	M22- My0045137	M22- My0045138
Date Sampled			May 18, 2022	May 18, 2022	May 18, 2022	May 09, 2022
Test/Reference	LOR	Unit				
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
13C2-8:2 FTSA (surr.)	1	%	104	109	111	95
13C2-10:2 FTSA (surr.)	1	%	109	70	119	125
<b>PFASs Summations</b>						
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_IB_202205 19_04_05_SS_ Primary_EUF	SX_OB_20220 519_04_18_SS_ _Primary_EUF
Sample Matrix			Soil	Soil
Eurofins Sample No.			M22- My0045139	M22- My0045140
Date Sampled			May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit		
<b>Total Recoverable Hydrocarbons</b>				
TRH C6-C9	20	mg/kg	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50
Naphthalene <sup>N02</sup>	0.5	mg/kg	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20
TRH C6-C10 less BTEX (F1) <sup>N04</sup>	20	mg/kg	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) <sup>N01</sup>	50	mg/kg	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100
<b>Volatile Organics</b>				
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5
<b>Volatile Organics</b>				
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5

Client Sample ID			SX_IB_202205 19_04_05_SS Primary_EUF	SX_OB_20220 519_04_18_SS _Primary_EUF
Sample Matrix			Soil	Soil
Eurofins Sample No.			M22- My0045139	M22- My0045140
Date Sampled			May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit		
Volatile Organics				
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	70	82
Toluene-d8 (surr.)	1	%	63	82

Client Sample ID			SX_IB_202205 19_04_05_SS Primary_EUF	SX_OB_20220 519_04_18_SS _Primary_EUF
Sample Matrix			Soil	Soil
Eurofins Sample No.			M22- My0045139	M22- My0045140
Date Sampled			May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit		
<b>Polycyclic Aromatic Hydrocarbons</b>				
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5
Benzo(b&j)fluoranthene <sup>N07</sup>	0.5	mg/kg	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	64	72
p-Terphenyl-d14 (surr.)	1	%	82	84
<b>Organochlorine Pesticides</b>				
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1



<b>Client Sample ID</b>			<b>SX_IB_202205</b>	<b>SX_OB_20220</b>
<b>Sample Matrix</b>			<b>19_04_05_SS</b>	<b>519_04_18_SS</b>
<b>Eurofins Sample No.</b>			<b>Primary_EUF</b>	<b>Primary_EUF</b>
<b>Date Sampled</b>			<b>Soil</b>	<b>Soil</b>
<b>Test/Reference</b>	LOR	Unit	<b>M22-My0045139</b>	<b>M22-My0045140</b>
			<b>May 19, 2022</b>	<b>May 19, 2022</b>
<b>Organochlorine Pesticides</b>				
Dibutylchlorendate (surr.)	1	%	62	53
Tetrachloro-m-xylene (surr.)	1	%	78	88
<b>Polychlorinated Biphenyls</b>				
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	62	53
Tetrachloro-m-xylene (surr.)	1	%	78	88
<b>Phenols (Halogenated)</b>				
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5
2,4,5-Trichlorophenol	1	mg/kg	< 1	< 1
2,4,6-Trichlorophenol	1	mg/kg	< 1	< 1
2,6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1
<b>Phenols (non-Halogenated)</b>				
2-Cyclohexyl-4,6-dinitrophenol	20	mg/kg	< 20	< 20
2-Methyl-4,6-dinitrophenol	5	mg/kg	< 5	< 5
2-Nitrophenol	1.0	mg/kg	< 1	< 1
2,4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5
2,4-Dinitrophenol	5	mg/kg	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	84	93
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20
<b>Chromium (hexavalent)</b>				
Chromium (hexavalent)	1	mg/kg	< 1	< 1
Cyanide (total)	5	mg/kg	< 5	< 5
Fluoride (Total)	100	mg/kg	< 100	< 100
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	8.7	8.7
% Moisture	1	%	26	30



Client Sample ID			SX_IB_202205 19_04_05_SS Primary_EUF	SX_OB_20220 519_04_18_SS _Primary_EUF
Sample Matrix			Soil	Soil
Eurofins Sample No.			M22- My0045139	M22- My0045140
Date Sampled			May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit		
<b>Heavy Metals</b>				
Arsenic	2	mg/kg	22	200
Cadmium	0.4	mg/kg	< 0.4	< 0.4
Chromium	5	mg/kg	130	170
Copper	5	mg/kg	62	110
Lead	5	mg/kg	< 5	7.4
Mercury	0.1	mg/kg	< 0.1	< 0.1
Molybdenum	5	mg/kg	< 5	< 5
Nickel	5	mg/kg	210	270
Selenium	2	mg/kg	< 2	< 2
Silver	2	mg/kg	< 2	< 2
Tin	10	mg/kg	< 10	< 10
Zinc	5	mg/kg	110	200
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>				
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	5	ug/kg	< 5	< 5
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	5	ug/kg	< 5	< 5
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	5	ug/kg	< 5	< 5
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	5	ug/kg	< 5	< 5
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	5	ug/kg	< 5	< 5
Perfluorononanoic acid (PFNA) <sup>N11</sup>	5	ug/kg	< 5	< 5
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	5	ug/kg	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	5	ug/kg	< 5	< 5
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	5	ug/kg	< 5	< 5
Perfluorotridecanoic acid (PFTeDA) <sup>N15</sup>	5	ug/kg	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	5	ug/kg	< 5	< 5
13C4-PFBA (surr.)	1	%	58	86
13C5-PFPeA (surr.)	1	%	122	107
13C5-PFHxA (surr.)	1	%	69	85
13C4-PFHpA (surr.)	1	%	62	93
13C8-PFOA (surr.)	1	%	64	97
13C5-PFNA (surr.)	1	%	67	64
13C6-PFDA (surr.)	1	%	58	106
13C2-PFUnDA (surr.)	1	%	64	71
13C2-PFDoDA (surr.)	1	%	71	71
13C2-PFTeDA (surr.)	1	%	56	86
<b>Perfluoroalkyl sulfonamido substances</b>				
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	5	ug/kg	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	5	ug/kg	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	10	ug/kg	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	10	ug/kg	< 10	< 10
13C8-FOSA (surr.)	1	%	75	92
D3-N-MeFOSA (surr.)	1	%	79	82

Client Sample ID			SX_IB_202205 19_04_05_SS_ Primary_EUF	SX_OB_20220 519_04_18_SS _Primary_EUF
Sample Matrix			Soil	Soil
Eurofins Sample No.			M22- My0045139	M22- My0045140
Date Sampled			May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit		
<b>Perfluoroalkyl sulfonamido substances</b>				
D5-N-EtFOSA (surr.)	1	%	72	85
D7-N-MeFOSE (surr.)	1	%	59	90
D9-N-EtFOSE (surr.)	1	%	68	84
D5-N-EtFOSAA (surr.)	1	%	95	82
D3-N-MeFOSAA (surr.)	1	%	105	84
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>				
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	5	ug/kg	< 5	< 5
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	5	ug/kg	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	5	ug/kg	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	5	ug/kg	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	5	ug/kg	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	5	ug/kg	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	5	ug/kg	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	5	ug/kg	< 5	< 5
13C3-PFBS (surr.)	1	%	75	91
18O2-PFHxS (surr.)	1	%	75	112
13C8-PFOS (surr.)	1	%	93	106
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>				
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	10	ug/kg	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	61	73
13C2-6:2 FTSA (surr.)	1	%	61	98
13C2-8:2 FTSA (surr.)	1	%	90	71
13C2-10:2 FTSA (surr.)	1	%	86	106
<b>PFASs Summations</b>				
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	< 10
Sum of PFASs (n=30)*	50	ug/kg	< 50	< 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 - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	May 19, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	May 19, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	May 19, 2022	14 Days
Volatile Organics - Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS	Melbourne	May 19, 2022	7 Days
Volatile Organics - Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)	Melbourne	May 19, 2022	7 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 19, 2022	14 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)	Melbourne	May 19, 2022	14 Days
Polychlorinated Biphenyls - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082)	Melbourne	May 19, 2022	28 Days
Phenols (Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 19, 2022	14 Days
Phenols (non-Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 19, 2022	14 Days
Chromium (hexavalent) - Method: LTM-INO-4100 Hexavalent Chromium by Spectrometric detection	Melbourne	May 19, 2022	28 Days
Cyanide (total) - Method: LTM-INO-4020 Total Free WAD Cyanide by CFA	Melbourne	May 20, 2022	14 Days
Fluoride (Total) - Method: LTM-INO-4150 Determination of Total Fluoride PART B – ISE	Melbourne	May 20, 2022	28 Days
pH (1:5 Aqueous extract at 25°C as rec.) - Method: LTM-GEN-7090 pH in soil by ISE	Melbourne	May 19, 2022	7 Days
Metals IWRG 621 : Metals M12 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	May 19, 2022	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Melbourne	May 19, 2022	14 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 25, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 25, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFASs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 25, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 25, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 19, 2022	

<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	May 19, 2022 1:05 PM
<b>Address:</b>	3/224 Glen Osmond Road Fullarton SA 5063	<b>Report #:</b>	889872	<b>Due:</b>	May 26, 2022
<b>Project Name:</b>	20220519044707-Eurofin-21	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	SX_IB_20220518_07_56_SS_Triplicate_EU_F	May 18, 2022	7:56AM	Soil	M22-My0045129		X	X	X
2	SX_IB_20220518_08_00_SS_Primary_EUF	May 18, 2022	8:00AM	Soil	M22-My0045130		X	X	X
3	SX_IB_20220518_08_29_SB_Blank_EUF	May 18, 2022	8:29AM	Water	M22-My0045131			X	
4	SX_IB_20220518_08_27_SR	May 18, 2022	8:27AM	Water	M22-My0045132			X	

<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	May 19, 2022 1:05 PM
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<b>Project Name:</b>	20220519044707-Eurofin-21	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	_Rinsate_EUF								
5	SX_OB_20220518_12_31_SS_Primary_EUF	May 18, 2022	12:31PM	Soil	M22-My0045133		X	X	X
6	SX_IB_20220518_12_40_SS_Primary_EUF	May 18, 2022	12:40PM	Soil	M22-My0045134		X	X	X
7	SX_IB_20220518_15_46_SS_Primary_EUF	May 18, 2022	3:46PM	Soil	M22-My0045135		X	X	X
8	SX_IB_20220518_15_50_SS_Duplicate_EUF	May 18, 2022	3:50PM	Soil	M22-My0045136		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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	_Duplicate_EU F								
9	SX_OB_20220518_19_54_S_S_Primary_EUF	May 18, 2022	7:54PM	Soil	M22-My0045137		X	X	X
10	SX_IB_20220519_00_05_SS_Primary_EUF	May 09, 2022	12:05AM	Soil	M22-My0045138		X	X	X
11	SX_IB_20220519_04_05_SS_Primary_EUF	May 19, 2022	4:05AM	Soil	M22-My0045139		X	X	X
12	SX_OB_20220519_04_18_S	May 19, 2022	4:18AM	Soil	M22-My0045140		X	X	X

**Company Name:** Agon Environmental Pty Ltd - VIC  
**Address:** 3/224 Glen Osmond Road  
Fullarton  
SA 5063  
  
**Project Name:** 20220519044707-Eurofin-21  
**Project ID:** JC0927

**Order No.:**  
**Report #:** 889872  
**Phone:** 08 8338 1009  
**Fax:**

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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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	S_Primary_EU F								
13	SX_IB_202205 18_07_56_SS _Triplicate_EU F	May 18, 2022	7:56AM	AUS Leachate - pH 5.0	M22- My0045141	X		X	
14	SX_IB_202205 18_08_00_SS _Primary_EUF	May 18, 2022	8:00AM	AUS Leachate - pH 5.0	M22- My0045142	X		X	
15	SX_OB_20220 518_12_31_S S_Primary_EU F	May 18, 2022	12:31PM	AUS Leachate - pH 5.0	M22- My0045143	X		X	
16	SX_IB_202205	May 18, 2022	12:40PM	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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
16	SX_IB_20220518_12_40_SS_Primary_EUF	May 18, 2022	12:40PM	AUS Leachate - pH 5.0	M22-My0045144				
17	SX_IB_20220518_15_46_SS_Primary_EUF	May 18, 2022	3:46PM	AUS Leachate - pH 5.0	M22-My0045145	X		X	
18	SX_IB_20220518_15_50_SS_Duplicate_EUF	May 18, 2022	3:50PM	AUS Leachate - pH 5.0	M22-My0045146	X		X	
19	SX_OB_20220518_19_54_S_S_Primary_EUF	May 18, 2022	7:54PM	AUS Leachate - pH 5.0	M22-My0045147	X		X	



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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
20	SX_IB_20220519_00_05_SS_Primary_EUF	May 09, 2022	12:05AM	AUS Leachate - pH 5.0	M22-My0045148	X		X	
21	SX_IB_20220519_04_05_SS_Primary_EUF	May 19, 2022	4:05AM	AUS Leachate - pH 5.0	M22-My0045149	X		X	
22	SX_OB_20220519_04_18_SS_Primary_EUF	May 19, 2022	4:18AM	AUS Leachate - pH 5.0	M22-My0045150	X		X	
23	SX_IB_20220518_07_56_SS_Triplicate_EUF	May 18, 2022	7:56AM	AUS Leachate - Reagent Water	M22-My0045151	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
24	SX_IB_20220518_08_00_SS_Primary_EUF	May 18, 2022	8:00AM	AUS Leachate - Reagent Water	M22-My0045152	X		X	
25	SX_OB_20220518_12_31_S_Primary_EUF	May 18, 2022	12:31PM	AUS Leachate - Reagent Water	M22-My0045153	X		X	
26	SX_IB_20220518_12_40_SS_Primary_EUF	May 18, 2022	12:40PM	AUS Leachate - Reagent Water	M22-My0045154	X		X	
27	SX_IB_20220518_15_46_SS_Primary_EUF	May 18, 2022	3:46PM	AUS Leachate - Reagent Water	M22-My0045155	X		X	
28	SX_IB_202205	May 18, 2022	3:50PM	AUS Leachate	M22-	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	18_15_50_SS_Duplicate_EU_F			- Reagent Water	My0045156				
29	SX_OB_20220518_19_54_SS_Primary_EU_F	May 18, 2022	7:54PM	AUS Leachate - Reagent Water	M22-My0045157	X		X	
30	SX_IB_20220519_00_05_SS_Primary_EUF	May 09, 2022	12:05AM	AUS Leachate - Reagent Water	M22-My0045158	X		X	
31	SX_IB_20220519_04_05_SS_Primary_EUF	May 19, 2022	4:05AM	AUS Leachate - Reagent Water	M22-My0045159	X		X	
32	SX_OB_20220519_04_05_SS_Primary_EUF	May 19, 2022	4:18AM	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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
32	SX_OB_20220519_04_18_SS_Primary_EUF	May 19, 2022	4:18AM	AUS Leachate - Reagent Water	M22-My0045160				
<b>Test Counts</b>						20	10	32	10

## Internal Quality Control Review and Glossary

### General

- 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.
- All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
- Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
- 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

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

### Terms

<b>APHA</b>	American Public Health Association
<b>COC</b>	Chain of Custody
<b>CP</b>	Client Parent - QC was performed on samples pertaining to this report
<b>CRM</b>	Certified Reference Material (ISO17034) - reported as percent recovery.
<b>Dry</b>	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
<b>Duplicate</b>	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
<b>LOR</b>	Limit of Reporting.
<b>LCS</b>	Laboratory Control Sample - reported as percent recovery.
<b>Method Blank</b>	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.
<b>NCP</b>	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.
<b>RPD</b>	Relative Percent Difference between two Duplicate pieces of analysis.
<b>SPIKE</b>	Addition of the analyte to the sample and reported as percentage recovery.
<b>SRA</b>	Sample Receipt Advice
<b>Surr - Surrogate</b>	The addition of a like compound to the analyte target and reported as percentage recovery.
<b>TBTO</b>	Tributyltin oxide ( <i>bis</i> -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.
<b>TCLP</b>	Toxicity Characteristic Leaching Procedure
<b>TEQ</b>	Toxic Equivalency Quotient or Total Equivalence
<b>QSM</b>	US Department of Defense Quality Systems Manual Version 5.4
<b>US EPA</b>	United States Environmental Protection Agency
<b>WA DWER</b>	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

- 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.
- 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.
- 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.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- 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
<b>Method Blank</b>							
<b>Total Recoverable Hydrocarbons</b>							
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	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	
<b>Method Blank</b>							
Chromium (hexavalent)	mg/kg	< 1			1	Pass	
Fluoride (Total)	mg/kg	< 100			100	Pass	
<b>Method Blank</b>							
<b>Heavy Metals</b>							
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	
Zinc	mg/kg	< 5			5	Pass	
<b>Method Blank</b>							
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>							
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 (PFTTrDA)	ug/kg	< 5			5	Pass	
Perfluorotetradecanoic acid (PFTTeDA)	ug/kg	< 5			5	Pass	
<b>Method Blank</b>							
<b>Perfluoroalkyl sulfonamido substances</b>							
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	
<b>Method Blank</b>							
<b>Perfluoroalkyl sulfonic acids (PFSA)</b>							
Perfluorobutanesulfonic acid (PFBS)	ug/kg	< 5			5	Pass	
Perfluoronanesulfonic acid (PFNS)	ug/kg	< 5			5	Pass	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
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	
<b>Method Blank</b>						
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
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	
<b>LCS - % Recovery</b>						
<b>Total Recoverable Hydrocarbons</b>						
TRH C10-C14	%	104		70-130	Pass	
TRH >C10-C16	%	107		70-130	Pass	
<b>LCS - % Recovery</b>						
Chromium (hexavalent)	%	79		70-130	Pass	
Fluoride (Total)	%	108		70-130	Pass	
<b>LCS - % Recovery</b>						
<b>Heavy Metals</b>						
Arsenic	%	95		80-120	Pass	
Cadmium	%	102		80-120	Pass	
Chromium	%	97		80-120	Pass	
Copper	%	93		80-120	Pass	
Lead	%	95		80-120	Pass	
Mercury	%	104		80-120	Pass	
Molybdenum	%	95		80-120	Pass	
Nickel	%	95		80-120	Pass	
Selenium	%	95		80-120	Pass	
Silver	%	98		80-120	Pass	
Tin	%	96		80-120	Pass	
Zinc	%	96		80-120	Pass	
<b>LCS - % Recovery</b>						
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA)	%	93		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	76		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	89		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	99		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	101		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	92		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	97		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	104		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	118		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	87		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	111		50-150	Pass	
<b>LCS - % Recovery</b>						
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA)	%	89		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	89		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	105		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)	%	93		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	94		50-150	Pass	

Test				Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)				%	94		50-150	Pass	
<b>LCS - % Recovery</b>									
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>									
Perfluorobutanesulfonic acid (PFBS)				%	108		50-150	Pass	
Perfluorononanesulfonic acid (PFNS)				%	147		50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)				%	112		50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)				%	116		50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)				%	90		50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)				%	106		50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)				%	102		50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)				%	88		50-150	Pass	
<b>LCS - % Recovery</b>									
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>									
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)				%	114		50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)				%	118		50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)				%	141		50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)				%	88		50-150	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
<b>Spike - % Recovery</b>									
<b>Total Recoverable Hydrocarbons</b>					Result 1				
TRH C10-C14	M22-My0045129	CP	%	98			70-130	Pass	
TRH >C10-C16	M22-My0045129	CP	%	100			70-130	Pass	
<b>Spike - % Recovery</b>									
					Result 1				
Fluoride (Total)	M22-My0045133	CP	%	91			70-130	Pass	
<b>Spike - % Recovery</b>									
					Result 1				
Fluoride (Total)	M22-My0045134	CP	%	144			70-130	Fail	Q08
<b>Spike - % Recovery</b>									
<b>Heavy Metals</b>					Result 1				
Arsenic	M22-My0045136	CP	%	101			75-125	Pass	
Cadmium	M22-My0045136	CP	%	121			75-125	Pass	
Chromium	M22-My0045136	CP	%	108			75-125	Pass	
Copper	M22-My0045136	CP	%	110			75-125	Pass	
Lead	M22-My0045136	CP	%	118			75-125	Pass	
Molybdenum	M22-My0045136	CP	%	110			75-125	Pass	
Nickel	M22-My0045136	CP	%	104			75-125	Pass	
Selenium	M22-My0045136	CP	%	104			75-125	Pass	
Silver	M22-My0045136	CP	%	112			75-125	Pass	
Tin	M22-My0045136	CP	%	121			75-125	Pass	
Zinc	M22-My0045136	CP	%	128			75-125	Fail	Q08
<b>Spike - % Recovery</b>									
					Result 1				
Fluoride (Total)	M22-My0045138	CP	%	83			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
<b>Duplicate</b>									
<b>Total Recoverable Hydrocarbons</b>					Result 1	Result 2	RPD		
TRH C6-C9	M22-My0038868	NCP	mg/kg	< 20	< 20	< 1	30%	Pass	
TRH C10-C14	M22-My0045129	CP	mg/kg	< 20	< 20	< 1	30%	Pass	
TRH C15-C28	M22-My0045129	CP	mg/kg	< 50	< 50	< 1	30%	Pass	
TRH C29-C36	M22-My0045129	CP	mg/kg	< 50	< 50	< 1	30%	Pass	
TRH >C10-C16	M22-My0045129	CP	mg/kg	< 50	< 50	< 1	30%	Pass	
TRH >C16-C34	M22-My0045129	CP	mg/kg	< 100	< 100	< 1	30%	Pass	
TRH >C34-C40	M22-My0045129	CP	mg/kg	< 100	< 100	< 1	30%	Pass	



Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
Hexachlorobutadiene	M22-My0038868	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
1,2,4-Trichlorobenzene	M22-My0038868	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	M22-My0041628	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	M22-My0041628	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	M22-My0041628	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	M22-My0041628	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	M22-My0041628	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&i)fluoranthene	M22-My0041628	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	M22-My0041628	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	M22-My0041628	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	M22-My0041628	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	M22-My0041628	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	M22-My0041628	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	M22-My0041628	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	M22-My0041628	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	M22-My0041628	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	M22-My0041628	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	M22-My0041628	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	M22-My0041628	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4,4'-DDD	M22-My0045129	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDE	M22-My0041628	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	M22-My0045129	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	M22-My0045129	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	M22-My0045129	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	M22-My0041628	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	M22-My0045129	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	M22-My0045129	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	M22-My0041628	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	M22-My0041628	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	M22-My0041628	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	M22-My0041628	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	M22-My0045129	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	M22-My0041628	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	M22-My0045129	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	M22-My0041628	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	M22-My0045129	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	M22-My0041628	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	M22-My0041628	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	M22-My0041628	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	M22-My0045129	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	M22-My0045129	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	M22-My0045129	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	M22-My0045129	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	M22-My0045129	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	M22-My0045129	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	M22-My0045129	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	M22-My0045129	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass

Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2-Chlorophenol	M22-My0045129	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dichlorophenol	M22-My0045129	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4,5-Trichlorophenol	M22-My0045129	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4,6-Trichlorophenol	M22-My0045129	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,6-Dichlorophenol	M22-My0045129	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chloro-3-methylphenol	M22-My0045129	CP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	M22-My0045129	CP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	M22-My0045129	CP	mg/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4,6-dinitrophenol	M22-My0045129	CP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4,6-dinitrophenol	M22-My0045129	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	M22-My0045129	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4-Dimethylphenol	M22-My0045129	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dinitrophenol	M22-My0045129	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	M22-My0045129	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	M22-My0045129	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	M22-My0045129	CP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	M22-My0045129	CP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	M22-My0045129	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Chromium (hexavalent)	M22-My0045567	NCP	mg/kg	< 1	< 1	<1	30%	Pass
pH (1:5 Aqueous extract at 25°C as rec.)	M22-My0045129	CP	pH Units	8.0	8.1	pass	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Fluoride (Total)	M22-My0045130	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
% Moisture	M22-My0045135	CP	%	26	29	9.0	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	M22-My0045136	CP	mg/kg	43	43	<1	30%	Pass
Cadmium	M22-My0045136	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	M22-My0045136	CP	mg/kg	140	140	1.0	30%	Pass
Copper	M22-My0045136	CP	mg/kg	74	76	2.0	30%	Pass
Lead	M22-My0045136	CP	mg/kg	< 5	< 5	<1	30%	Pass
Mercury	M22-My0045136	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Molybdenum	M22-My0045136	CP	mg/kg	< 5	< 5	<1	30%	Pass
Nickel	M22-My0045136	CP	mg/kg	220	230	3.0	30%	Pass
Selenium	M22-My0045136	CP	mg/kg	< 2	< 2	<1	30%	Pass
Silver	M22-My0045136	CP	mg/kg	< 2	< 2	<1	30%	Pass
Tin	M22-My0045136	CP	mg/kg	< 10	< 10	<1	30%	Pass
Zinc	M22-My0045136	CP	mg/kg	130	130	2.0	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Cyanide (total)	M22-My0045139	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).
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.
Q09	The Surrogate recovery is outside of the recommended acceptance criteria due to matrix interference. Acceptance criteria were met for all other QC

**Authorised by:**

Michael Cassidy	Analytical Services Manager
Caitlin Breeze	Senior Analyst-Inorganic
Carroll Lee	Senior Analyst-Volatile
Edward Lee	Senior Analyst-Organic
Joseph Edouard	Senior Analyst-PFAS
Mary Makarios	Senior Analyst-Metal
Mary Makarios	Senior Analyst-Sample Properties



**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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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: **David Lawson**

Report **889872-W**  
Project name **20220519044707-Eurofin-21**  
Project ID **JC0927**  
Received Date **May 19, 2022**

Client Sample ID			SX_IB_202205 18_08_29_SB_Blank_EUF	SX_IB_202205 18_08_27_SR_Rinsate_EUF
Sample Matrix			Water	Water
Eurofins Sample No.			M22-My0045131	M22-My0045132
Date Sampled			May 18, 2022	May 18, 2022
Test/Reference	LOR	Unit		
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>				
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	117	114
13C5-PFPeA (surr.)	1	%	83	78
13C5-PFHxA (surr.)	1	%	115	110
13C4-PFHpA (surr.)	1	%	119	114
13C8-PFOA (surr.)	1	%	120	117
13C5-PFNA (surr.)	1	%	88	89
13C6-PFDA (surr.)	1	%	96	101
13C2-PFUnDA (surr.)	1	%	84	86
13C2-PFDoDA (surr.)	1	%	90	88
13C2-PFTeDA (surr.)	1	%	90	69
<b>Perfluoroalkyl sulfonamido substances</b>				
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	111	98

Client Sample ID			SX_IB_202205 18_08_29_SB_ Blank_EUF	SX_IB_202205 18_08_27_SR_ Rinsate_EUF
Sample Matrix			Water	Water
Eurofins Sample No.			M22- My0045131	M22- My0045132
Date Sampled			May 18, 2022	May 18, 2022
Test/Reference	LOR	Unit		
<b>Perfluoroalkyl sulfonamido substances</b>				
D3-N-MeFOSA (surr.)	1	%	87	33
D5-N-EtFOSA (surr.)	1	%	83	27
D7-N-MeFOSE (surr.)	1	%	77	99
D9-N-EtFOSE (surr.)	1	%	104	82
D5-N-EtFOSAA (surr.)	1	%	99	91
D3-N-MeFOSAA (surr.)	1	%	99	100
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>				
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	102	101
18O2-PFHxS (surr.)	1	%	88	94
13C8-PFOS (surr.)	1	%	97	93
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>				
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	59	60
13C2-6:2 FTSA (surr.)	1	%	52	55
13C2-8:2 FTSA (surr.)	1	%	58	75
13C2-10:2 FTSA (surr.)	1	%	73	86
<b>PFASs Summations</b>				
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.

<b>Description</b>	<b>Testing Site</b>	<b>Extracted</b>	<b>Holding Time</b>
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 19, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 19, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 19, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 19, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 19, 2022	

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<b>Project Name:</b>	20220519044707-Eurofin-21	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	SX_IB_20220518_07_56_SS_Triplicate_EU_F	May 18, 2022	7:56AM	Soil	M22-My0045129		X	X	X
2	SX_IB_20220518_08_00_SS_Primary_EUF	May 18, 2022	8:00AM	Soil	M22-My0045130		X	X	X
3	SX_IB_20220518_08_29_SB_Blank_EUF	May 18, 2022	8:29AM	Water	M22-My0045131			X	
4	SX_IB_20220518_08_27_SR	May 18, 2022	8:27AM	Water	M22-My0045132			X	

**Company Name:** Agon Environmental Pty Ltd - VIC  
**Address:** 3/224 Glen Osmond Road  
Fullarton  
SA 5063  
  
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**Order No.:**  
**Report #:** 889872  
**Phone:** 08 8338 1009  
**Fax:**

**Received:** May 19, 2022 1:05 PM  
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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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	_Rinsate_EUF								
5	SX_OB_20220518_12_31_SS_Primary_EUF	May 18, 2022	12:31PM	Soil	M22-My0045133		X	X	X
6	SX_IB_20220518_12_40_SS_Primary_EUF	May 18, 2022	12:40PM	Soil	M22-My0045134		X	X	X
7	SX_IB_20220518_15_46_SS_Primary_EUF	May 18, 2022	3:46PM	Soil	M22-My0045135		X	X	X
8	SX_IB_20220518_15_50_SS_Duplicate_EUF	May 18, 2022	3:50PM	Soil	M22-My0045136		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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	_Duplicate_EU F								
9	SX_OB_20220518_19_54_S_S_Primary_EUF	May 18, 2022	7:54PM	Soil	M22-My0045137		X	X	X
10	SX_IB_20220519_00_05_SS_Primary_EUF	May 09, 2022	12:05AM	Soil	M22-My0045138		X	X	X
11	SX_IB_20220519_04_05_SS_Primary_EUF	May 19, 2022	4:05AM	Soil	M22-My0045139		X	X	X
12	SX_OB_20220519_04_18_S	May 19, 2022	4:18AM	Soil	M22-My0045140		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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	S_Primary_EU F								
13	SX_IB_202205 18_07_56_SS _Triplicate_EU F	May 18, 2022	7:56AM	AUS Leachate - pH 5.0	M22- My0045141	X		X	
14	SX_IB_202205 18_08_00_SS _Primary_EUF	May 18, 2022	8:00AM	AUS Leachate - pH 5.0	M22- My0045142	X		X	
15	SX_OB_20220 518_12_31_S S_Primary_EU F	May 18, 2022	12:31PM	AUS Leachate - pH 5.0	M22- My0045143	X		X	
16	SX_IB_202205	May 18, 2022	12:40PM	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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
16	SX_IB_20220518_12_40_SS_Primary_EUF	May 18, 2022	12:40PM	AUS Leachate - pH 5.0	M22-My0045144				
17	SX_IB_20220518_15_46_SS_Primary_EUF	May 18, 2022	3:46PM	AUS Leachate - pH 5.0	M22-My0045145	X		X	
18	SX_IB_20220518_15_50_SS_Duplicate_EUF	May 18, 2022	3:50PM	AUS Leachate - pH 5.0	M22-My0045146	X		X	
19	SX_OB_20220518_19_54_S_S_Primary_EUF	May 18, 2022	7:54PM	AUS Leachate - pH 5.0	M22-My0045147	X		X	

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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
20	SX_IB_20220519_00_05_SS_Primary_EUF	May 09, 2022	12:05AM	AUS Leachate - pH 5.0	M22-My0045148	X		X	
21	SX_IB_20220519_04_05_SS_Primary_EUF	May 19, 2022	4:05AM	AUS Leachate - pH 5.0	M22-My0045149	X		X	
22	SX_OB_20220519_04_18_SS_Primary_EUF	May 19, 2022	4:18AM	AUS Leachate - pH 5.0	M22-My0045150	X		X	
23	SX_IB_20220518_07_56_SS_Triplicate_EUF	May 18, 2022	7:56AM	AUS Leachate - Reagent Water	M22-My0045151	X		X	

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<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
24	SX_IB_20220518_08_00_SS_Primary_EUF	May 18, 2022	8:00AM	AUS Leachate - Reagent Water	M22-My0045152	X		X	
25	SX_OB_20220518_12_31_S_Primary_EUF	May 18, 2022	12:31PM	AUS Leachate - Reagent Water	M22-My0045153	X		X	
26	SX_IB_20220518_12_40_SS_Primary_EUF	May 18, 2022	12:40PM	AUS Leachate - Reagent Water	M22-My0045154	X		X	
27	SX_IB_20220518_15_46_SS_Primary_EUF	May 18, 2022	3:46PM	AUS Leachate - Reagent Water	M22-My0045155	X		X	
28	SX_IB_202205	May 18, 2022	3:50PM	AUS Leachate	M22-	X		X	

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<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	18_15_50_SS_Duplicate_EU_F			- Reagent Water	My0045156				
29	SX_OB_20220518_19_54_SS_Primary_EU_F	May 18, 2022	7:54PM	AUS Leachate - Reagent Water	M22-My0045157	X		X	
30	SX_IB_20220519_00_05_SS_Primary_EUF	May 09, 2022	12:05AM	AUS Leachate - Reagent Water	M22-My0045158	X		X	
31	SX_IB_20220519_04_05_SS_Primary_EUF	May 19, 2022	4:05AM	AUS Leachate - Reagent Water	M22-My0045159	X		X	
32	SX_OB_20220519_04_05_SS_Primary_EUF	May 19, 2022	4:18AM	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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
32	SX_OB_20220519_04_18_SS_Primary_EUF	May 19, 2022	4:18AM	AUS Leachate - Reagent Water	M22-My0045160				
<b>Test Counts</b>						20	10	32	10

**Internal Quality Control Review and Glossary**
**General**

- 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.
- All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
- Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
- 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**

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

**Terms**

<b>APHA</b>	American Public Health Association
<b>COC</b>	Chain of Custody
<b>CP</b>	Client Parent - QC was performed on samples pertaining to this report
<b>CRM</b>	Certified Reference Material (ISO17034) - reported as percent recovery.
<b>Dry</b>	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
<b>Duplicate</b>	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
<b>LOR</b>	Limit of Reporting.
<b>LCS</b>	Laboratory Control Sample - reported as percent recovery.
<b>Method Blank</b>	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.
<b>NCP</b>	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.
<b>RPD</b>	Relative Percent Difference between two Duplicate pieces of analysis.
<b>SPIKE</b>	Addition of the analyte to the sample and reported as percentage recovery.
<b>SRA</b>	Sample Receipt Advice
<b>Surr - Surrogate</b>	The addition of a like compound to the analyte target and reported as percentage recovery.
<b>TBTO</b>	Tributyltin oxide ( <i>bis</i> -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.
<b>TCLP</b>	Toxicity Characteristic Leaching Procedure
<b>TEQ</b>	Toxic Equivalency Quotient or Total Equivalence
<b>QSM</b>	US Department of Defense Quality Systems Manual Version 5.4
<b>US EPA</b>	United States Environmental Protection Agency
<b>WA DWER</b>	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**

- 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.
- 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.
- 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.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- 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
<b>Method Blank</b>						
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
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 (PFTTrDA)	ug/L	< 0.01		0.01	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/L	< 0.01		0.01	Pass	
<b>Method Blank</b>						
<b>Perfluoroalkyl sulfonamido substances</b>						
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	
<b>Method Blank</b>						
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
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	
<b>Method Blank</b>						
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
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	
<b>LCS - % Recovery</b>						
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA)	%	145		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	127		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	121		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	122		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	128		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	119		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	114		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	136		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	103		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	110		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	56		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code		
<b>LCS - % Recovery</b>									
<b>Perfluoroalkyl sulfonamido substances</b>									
Perfluorooctane sulfonamide (FOSA)	%	122			50-150	Pass			
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	127			50-150	Pass			
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	135			50-150	Pass			
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	148			50-150	Pass			
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	111			50-150	Pass			
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	83			50-150	Pass			
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	133			50-150	Pass			
<b>LCS - % Recovery</b>									
<b>Perfluoroalkyl sulfonic acids (PFSA's)</b>									
Perfluorobutanesulfonic acid (PFBS)	%	91			50-150	Pass			
Perfluorononanesulfonic acid (PFNS)	%	110			50-150	Pass			
Perfluoropropanesulfonic acid (PFPrS)	%	147			50-150	Pass			
Perfluoropentanesulfonic acid (PFPeS)	%	112			50-150	Pass			
Perfluorohexanesulfonic acid (PFHxS)	%	127			50-150	Pass			
Perfluoroheptanesulfonic acid (PFHpS)	%	126			50-150	Pass			
Perfluorooctanesulfonic acid (PFOS)	%	126			50-150	Pass			
Perfluorodecanesulfonic acid (PFDS)	%	90			50-150	Pass			
<b>LCS - % Recovery</b>									
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)</b>									
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	80			50-150	Pass			
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	102			50-150	Pass			
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	140			50-150	Pass			
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	105			50-150	Pass			
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
<b>Duplicate</b>									
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>									
				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	M22-My0044741	NCP	ug/L	0.10	0.08	5.0	30%	Pass	
Perfluoropentanoic acid (PFPeA)	M22-My0049203	NCP	ug/L	2.7	2.4	10	30%	Pass	
Perfluorohexanoic acid (PFHxA)	M22-My0044741	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-My0044741	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	M22-My0044741	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	M22-My0044741	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M22-My0044741	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-My0044741	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-My0044741	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-My0044741	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-My0044741	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
<b>Duplicate</b>									
<b>Perfluoroalkyl sulfonamido substances</b>									
				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	M22-My0044741	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0044741	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0044741	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0044741	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0044741	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	

<b>Duplicate</b>								
<b>Perfluoroalkyl sulfonamido substances</b>				Result 1	Result 2	RPD		
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0044741	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0044741	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
<b>Duplicate</b>								
<b>Perfluoroalkyl sulfonic acids (PFSAs)</b>				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-My0044741	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-My0044741	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-My0044741	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-My0044741	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-My0044741	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0044741	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-My0049203	NCP	ug/L	1.7	1.5	10	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-My0044741	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
<b>Duplicate</b>								
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-My0044741	NCP	ug/L	< 0.01	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0044741	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0044741	NCP	ug/L	< 0.01	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0044741	NCP	ug/L	< 0.01	< 0.05	<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).

**Authorised by:**

Michael Cassidy	Analytical Services Manager
Joseph Edouard	Senior Analyst-PFAS



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

Report **890217-L**  
Project name **20220520044241-Eurofin-52**  
Project ID **JC0927**  
Received Date **May 20, 2022**

Client Sample ID			SX_OB_20220 519_08_01_SS _TriPLICATE_EU F	SX_IB_202205 19_08_09_SS _Primary_EUF	SX_IB_202205 19_11_52_SS _Primary_EUF	SX_OB_20220 519_12_03_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- My0048433	M22- My0048434	M22- My0048435	M22- My0048436
Date Sampled			May 19, 2022	May 19, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		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
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	100	83	90	79
13C5-PFPeA (surr.)	1	%	114	80	77	94
13C5-PFHxA (surr.)	1	%	111	75	78	89
13C4-PFHpA (surr.)	1	%	112	82	84	93
13C8-PFOA (surr.)	1	%	94	54	64	76
13C5-PFNA (surr.)	1	%	112	84	96	82
13C6-PFDA (surr.)	1	%	104	87	90	79
13C2-PFUnDA (surr.)	1	%	99	91	94	65
13C2-PFDoDA (surr.)	1	%	100	75	95	69
13C2-PFTTeDA (surr.)	1	%	41	41	77	24



Client Sample ID			SX_OB_20220 519_08_01_SS _TriPLICATE_EU F	SX_IB_202205 19_08_09_SS _Primary_EUF	SX_IB_202205 19_11_52_SS _Primary_EUF	SX_OB_20220 519_12_03_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- My0048433	M22- My0048434	M22- My0048435	M22- My0048436
Date Sampled			May 19, 2022	May 19, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	57	67	87	87
D3-N-MeFOSA (surr.)	1	%	12	16	12	10
D5-N-EtFOSA (surr.)	1	%	17	32	15	11
D7-N-MeFOSE (surr.)	1	%	24	34	39	12
D9-N-EtFOSE (surr.)	1	%	56	70	93	35
D5-N-EtFOSAA (surr.)	1	%	100	72	97	73
D3-N-MeFOSAA (surr.)	1	%	75	75	106	66
<b>Perfluoroalkyl sulfonic acids (PFSA)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	94	86	86	66
18O2-PFHxS (surr.)	1	%	115	91	90	89
13C8-PFOS (surr.)	1	%	99	94	91	75
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	82	93	109	53
13C2-6:2 FTSA (surr.)	1	%	69	87	104	53
13C2-8:2 FTSA (surr.)	1	%	66	51	58	51
13C2-10:2 FTSA (surr.)	1	%	77	84	81	50
<b>PFASs Summations</b>						
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_IB_202205_19_15_57_SS_Primary_EUF	SX_IB_202205_19_15_57_SS_Duplicate_EUF	SX_IB_202205_19_20_05_SS_Primary_EUF	SX_IB_202205_19_20_05_SS_Duplicate_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-My0048437	M22-My0048438	M22-My0048439	M22-My0048440
Date Sampled			May 19, 2022	May 19, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		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
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	85	71	89	85
13C5-PFPeA (surr.)	1	%	84	75	97	75
13C5-PFHxA (surr.)	1	%	74	64	80	82
13C4-PFHpA (surr.)	1	%	78	64	83	83
13C8-PFOA (surr.)	1	%	53	54	62	50
13C5-PFNA (surr.)	1	%	84	73	97	95
13C6-PFDA (surr.)	1	%	88	74	89	89
13C2-PFUnDA (surr.)	1	%	84	74	100	88
13C2-PFDoDA (surr.)	1	%	89	81	109	89
13C2-PFTeDA (surr.)	1	%	59	62	94	41
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	60	54	74	67
D3-N-MeFOSA (surr.)	1	%	29	21	46	15
D5-N-EtFOSA (surr.)	1	%	39	36	12	15
D7-N-MeFOSE (surr.)	1	%	51	19	59	46
D9-N-EtFOSE (surr.)	1	%	73	66	91	60
D5-N-EtFOSAA (surr.)	1	%	72	66	95	62
D3-N-MeFOSAA (surr.)	1	%	76	65	93	80



Client Sample ID			SX_IB_202205 19_15_57_SS Primary_EUF	SX_IB_202205 19_15_57_SS Duplicate_EUF	SX_IB_202205 19_20_05_SS Primary_EUF	SX_IB_202205 19_20_05_SS Duplicate_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- My0048437	M22- My0048438	M22- My0048439	M22- My0048440
Date Sampled			May 19, 2022	May 19, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	80	63	78	75
18O2-PFHxS (surr.)	1	%	88	76	89	87
13C8-PFOS (surr.)	1	%	84	79	103	83
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	98	77	113	94
13C2-6:2 FTSA (surr.)	1	%	93	73	113	74
13C2-8:2 FTSA (surr.)	1	%	56	43	56	54
13C2-10:2 FTSA (surr.)	1	%	69	74	91	77
<b>PFASs Summations</b>						
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_20220 519_20_34_SS Primary_EUF	SX_IB_202205 20_00_05_SS Primary_EUF	SX_IB_202205 20_04_02_SS Primary_EUF	SX_IB_202205 20_04_11_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- My0048441	M22- My0048442	M22- My0048443	M22- My0048444
Date Sampled			May 19, 2022	May 20, 2022	May 20, 2022	May 20, 2022
Test/Reference	LOR	Unit				
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		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	5.1	5.2	5.2

Client Sample ID			SX_OB_20220 519_20_34_SS Primary_EUF	SX_IB_202205 20_00_05_SS Primary_EUF	SX_IB_202205 20_04_02_SS Primary_EUF	SX_IB_202205 20_04_11_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- My0048441	M22- My0048442	M22- My0048443	M22- My0048444
Date Sampled			May 19, 2022	May 20, 2022	May 20, 2022	May 20, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	85	91	88	84
13C5-PFPeA (surr.)	1	%	95	77	98	87
13C5-PFHxA (surr.)	1	%	88	85	91	79
13C4-PFHpA (surr.)	1	%	99	92	91	87
13C8-PFOA (surr.)	1	%	58	68	82	53
13C5-PFNA (surr.)	1	%	89	102	94	88
13C6-PFDA (surr.)	1	%	87	92	95	91
13C2-PFUnDA (surr.)	1	%	82	97	89	88
13C2-PFDoDA (surr.)	1	%	75	102	85	102
13C2-PFTeDA (surr.)	1	%	31	105	32	84
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	71	81	59	70
D3-N-MeFOSA (surr.)	1	%	14	31	16	19
D5-N-EtFOSA (surr.)	1	%	14	42	16	23
D7-N-MeFOSE (surr.)	1	%	14	24	23	67
D9-N-EtFOSE (surr.)	1	%	34	86	55	81
D5-N-EtFOSAA (surr.)	1	%	68	88	71	103
D3-N-MeFOSAA (surr.)	1	%	81	84	89	94
<b>Perfluoroalkyl sulfonic acids (PFSA)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoronanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			SX_OB_20220 519_20_34_SS _Primary_EUF	SX_IB_202205 20_00_05_SS _Primary_EUF	SX_IB_202205 20_04_02_SS _Primary_EUF	SX_IB_202205 20_04_11_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- My0048441	M22- My0048442	M22- My0048443	M22- My0048444
Date Sampled			May 19, 2022	May 20, 2022	May 20, 2022	May 20, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	67	64	100	45
18O2-PFHxS (surr.)	1	%	96	99	105	94
13C8-PFOS (surr.)	1	%	87	97	83	87
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	68	111	85	97
13C2-6:2 FTSA (surr.)	1	%	70	107	67	90
13C2-8:2 FTSA (surr.)	1	%	58	67	51	56
13C2-10:2 FTSA (surr.)	1	%	64	107	66	126
<b>PFASs Summations</b>						
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_20220 519_08_01_SS _Triple_EU _F	SX_IB_202205 19_08_09_SS _Primary_EUF	SX_IB_202205 19_11_52_SS _Primary_EUF	SX_OB_20220 519_12_03_SS _Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- My0048445	M22- My0048446	M22- My0048447	M22- My0048448
Date Sampled			May 19, 2022	May 19, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		comment	4.0	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	6.2	6.2	6.2	6.2
pH (off)	0.1	pH Units	7.5	8.1	8.1	8.1
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			SX_OB_20220 519_08_01_SS _TriPLICATE_EU F	SX_IB_202205 19_08_09_SS _Primary_EUF	SX_IB_202205 19_11_52_SS _Primary_EUF	SX_OB_20220 519_12_03_SS _Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- My0048445	M22- My0048446	M22- My0048447	M22- My0048448
Date Sampled			May 19, 2022	May 19, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	98	86	80	100
13C5-PFPeA (surr.)	1	%	102	117	78	108
13C5-PFHxA (surr.)	1	%	103	56	74	107
13C4-PFHpA (surr.)	1	%	112	134	80	118
13C8-PFOA (surr.)	1	%	102	128	54	111
13C5-PFNA (surr.)	1	%	104	100	80	108
13C6-PFDA (surr.)	1	%	106	114	88	107
13C2-PFUnDA (surr.)	1	%	101	106	72	100
13C2-PFDoDA (surr.)	1	%	103	107	56	94
13C2-PFTeDA (surr.)	1	%	67	58	21	28
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	59	83	70	66
D3-N-MeFOSA (surr.)	1	%	15	19	11	10
D5-N-EtFOSA (surr.)	1	%	12	23	11	19
D7-N-MeFOSE (surr.)	1	%	28	64	31	15
D9-N-EtFOSE (surr.)	1	%	56	76	37	29
D5-N-EtFOSAA (surr.)	1	%	81	116	66	83
D3-N-MeFOSAA (surr.)	1	%	101	96	75	88
<b>Perfluoroalkyl sulfonic acids (PFSA)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	87	76	46	82
18O2-PFHxS (surr.)	1	%	98	123	81	106
13C8-PFOS (surr.)	1	%	115	110	84	105

Client Sample ID			<a href="#">SX_OB_20220519_08_01_SS_Triplicate_EUF</a>	<a href="#">SX_IB_20220519_08_09_SS_Primary_EUF</a>	<a href="#">SX_IB_20220519_11_52_SS_Primary_EUF</a>	<a href="#">SX_OB_20220519_12_03_SS_Primary_EUF</a>
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-My0048445	M22-My0048446	M22-My0048447	M22-My0048448
Date Sampled			May 19, 2022	May 19, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	93	127	88	67
13C2-6:2 FTSA (surr.)	1	%	78	68	81	73
13C2-8:2 FTSA (surr.)	1	%	67	60	58	71
13C2-10:2 FTSA (surr.)	1	%	85	90	47	84
<b>PFASs Summations</b>						
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			<a href="#">SX_IB_20220519_15_57_SS_Primary_EUF</a>	<a href="#">SX_IB_20220519_15_57_SS_Duplicate_EUF</a>	<a href="#">SX_IB_20220519_20_05_SS_Primary_EUF</a>	<a href="#">SX_IB_20220519_20_05_SS_Duplicate_EUF</a>
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-My0048449	M22-My0048450	M22-My0048451	M22-My0048452
Date Sampled			May 19, 2022	May 19, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		comment	4.0	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	6.2	6.2	6.2	6.2
pH (off)	0.1	pH Units	8.0	8.2	8.2	8.2
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	94	89	95	59

Client Sample ID			SX_IB_202205 19_15_57_SS_ Primary_EUF	SX_IB_202205 19_15_57_SS_ Duplicate_EUF	SX_IB_202205 19_20_05_SS_ Primary_EUF	SX_IB_202205 19_20_05_SS_ Duplicate_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- My0048449	M22- My0048450	M22- My0048451	M22- My0048452
Date Sampled			May 19, 2022	May 19, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
13C5-PFPeA (surr.)	1	%	95	92	93	54
13C5-PFHxA (surr.)	1	%	87	81	88	54
13C4-PFHpA (surr.)	1	%	89	85	102	59
13C8-PFOA (surr.)	1	%	60	52	70	63
13C5-PFNA (surr.)	1	%	99	97	98	59
13C6-PFDA (surr.)	1	%	94	95	110	67
13C2-PFUnDA (surr.)	1	%	102	95	104	66
13C2-PFDoDA (surr.)	1	%	96	97	99	68
13C2-PFTeDA (surr.)	1	%	53	72	55	46
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	83	90	91	60
D3-N-MeFOSA (surr.)	1	%	39	22	48	31
D5-N-EtFOSA (surr.)	1	%	43	25	45	44
D7-N-MeFOSE (surr.)	1	%	43	31	42	37
D9-N-EtFOSE (surr.)	1	%	81	71	89	51
D5-N-EtFOSAA (surr.)	1	%	82	98	115	64
D3-N-MeFOSAA (surr.)	1	%	70	109	80	65
<b>Perfluoroalkyl sulfonic acids (PFSA)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	76	81	67	57
18O2-PFHxS (surr.)	1	%	97	99	96	67
13C8-PFOS (surr.)	1	%	96	89	114	60



Client Sample ID			SX_IB_202205_19_15_57_SS_Primary_EUF	SX_IB_202205_19_15_57_SS_Duplicate_EUF	SX_IB_202205_19_20_05_SS_Primary_EUF	SX_IB_202205_19_20_05_SS_Duplicate_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-My0048449	M22-My0048450	M22-My0048451	M22-My0048452
Date Sampled			May 19, 2022	May 19, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	102	103	107	65
13C2-6:2 FTSA (surr.)	1	%	80	97	90	65
13C2-8:2 FTSA (surr.)	1	%	70	69	63	55
13C2-10:2 FTSA (surr.)	1	%	63	111	68	43
<b>PFASs Summations</b>						
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_20220_519_20_34_SS_Primary_EUF	SX_IB_202205_20_00_05_SS_Primary_EUF	SX_IB_202205_20_04_02_SS_Primary_EUF	SX_IB_202205_20_04_11_SS_Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-My0048453	M22-My0048454	M22-My0048455	M22-My0048456
Date Sampled			May 19, 2022	May 20, 2022	May 20, 2022	May 20, 2022
Test/Reference	LOR	Unit				
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		comment	4.0	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	6.2	6.2	6.2	6.2
pH (off)	0.1	pH Units	8.4	8.3	8.4	8.3
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	84	83	103	88
13C5-PFPeA (surr.)	1	%	96	90	115	92

Client Sample ID			SX_OB_20220 519_20_34_SS _Primary_EUF	SX_IB_202205 20_00_05_SS _Primary_EUF	SX_IB_202205 20_04_02_SS _Primary_EUF	SX_IB_202205 20_04_11_SS _Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- My0048453	M22- My0048454	M22- My0048455	M22- My0048456
Date Sampled			May 19, 2022	May 20, 2022	May 20, 2022	May 20, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
13C5-PFHxA (surr.)	1	%	89	77	109	82
13C4-PFHpA (surr.)	1	%	97	76	97	87
13C8-PFOA (surr.)	1	%	97	64	95	60
13C5-PFNA (surr.)	1	%	97	94	115	95
13C6-PFDA (surr.)	1	%	91	95	106	98
13C2-PFUnDA (surr.)	1	%	93	92	126	99
13C2-PFDoDA (surr.)	1	%	101	91	114	93
13C2-PFTeDA (surr.)	1	%	80	67	86	69
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	83	86	100	81
D3-N-MeFOSA (surr.)	1	%	39	30	19	25
D5-N-EtFOSA (surr.)	1	%	40	31	13	28
D7-N-MeFOSE (surr.)	1	%	26	47	54	14
D9-N-EtFOSE (surr.)	1	%	71	65	70	67
D5-N-EtFOSAA (surr.)	1	%	86	82	92	82
D3-N-MeFOSAA (surr.)	1	%	103	93	112	87
<b>Perfluoroalkyl sulfonic acids (PFSA)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	78	61	123	54
18O2-PFHxS (surr.)	1	%	85	98	111	96
13C8-PFOS (surr.)	1	%	87	86	104	93
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01



Client Sample ID			SX_OB_20220519_20_34_SS_Primary_EUF	SX_IB_20220520_00_05_SS_Primary_EUF	SX_IB_20220520_04_02_SS_Primary_EUF	SX_IB_20220520_04_11_SS_Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22-My0048453	M22-My0048454	M22-My0048455	M22-My0048456
Date Sampled			May 19, 2022	May 20, 2022	May 20, 2022	May 20, 2022
Test/Reference	LOR	Unit				
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
13C2-4:2 FTSA (surr.)	1	%	67	105	102	96
13C2-6:2 FTSA (surr.)	1	%	73	98	85	93
13C2-8:2 FTSA (surr.)	1	%	63	62	71	66
13C2-10:2 FTSA (surr.)	1	%	84	100	105	74
<b>PFASs Summations</b>						
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

**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) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	May 20, 2022	0 Days
pH (Leachate fluid) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	May 20, 2022	0 Days
pH (off) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	May 20, 2022	0 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 20, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 20, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFASs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 20, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 20, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 20, 2022	

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**Address:** 3/224 Glen Osmond Road  
Fullarton  
SA 5063  
  
**Project Name:** 20220520044241-Eurofin-52  
**Project ID:** JC0927

**Order No.:**  
**Report #:** 890217  
**Phone:** 08 8338 1009  
**Fax:**

**Received:** May 20, 2022 11:30 AM  
**Due:** May 27, 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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	SX_OB_20220519_08_01_S_S_Triplicate_EUF	May 19, 2022	8:01AM	Soil	M22-My0048417		X	X	X
2	SX_IB_20220519_08_09_SS_Primary_EUF	May 19, 2022	8:09AM	Soil	M22-My0048418		X	X	X
3	SX_IB_20220519_08_45_SR_Rinsate_EUF	May 19, 2022	8:45AM	Water	M22-My0048419			X	
4	SX_IB_20220519_08_46_SB	May 19, 2022	8:46AM	Water	M22-My0048420			X	

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<b>Project Name:</b>	20220520044241-Eurofin-52	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	Blank_EUF								
5	SX_IB_20220519_11_52_SS_Primary_EUF	May 19, 2022	12:03PM	Soil	M22-My0048421		X	X	X
6	SX_OB_20220519_12_03_SS_Primary_EUF	May 19, 2022	12:03PM	Soil	M22-My0048422		X	X	X
7	SX_IB_20220519_15_57_SS_Primary_EUF	May 19, 2022	3:57PM	Soil	M22-My0048423		X	X	X
8	SX_IB_20220519_15_57_SS_Duplicate_EU	May 19, 2022	3:57PM	Soil	M22-My0048424		X	X	X

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<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	_Duplicate_EU F								
9	SX_IB_202205 19_20_05_SS _Primary_EUF	May 19, 2022	8:05PM	Soil	M22- My0048425		X	X	X
10	SX_IB_202205 19_20_05_SS _Duplicate_EU F	May 19, 2022	8:05PM	Soil	M22- My0048426		X	X	X
11	SX_OB_20220 519_20_34_S S_Primary_EU F	May 19, 2022	8:34PM	Soil	M22- My0048427		X	X	X
12	SX_IB_202205	May 19, 2022	8:35PM	Water	M22-			X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	19_20_35_SR_Rinsate_EUF				My0048428				
13	SX_IB_20220519_20_36_SB_Blank_EUF	May 19, 2022	8:36PM	Water	M22-My0048429		X		
14	SX_IB_20220520_00_05_SS_Primary_EUF	May 20, 2022	12:05AM	Soil	M22-My0048430		X	X	X
15	SX_IB_20220520_04_02_SS_Primary_EUF	May 20, 2022	4:02AM	Soil	M22-My0048431		X	X	X
16	SX_IB_20220520_04_11_SS_Primary_EUF	May 20, 2022	4:11AM	Soil	M22-My0048432		X	X	X

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<b>Project Name:</b>	20220520044241-Eurofin-52	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
17	SX_OB_20220519_08_01_S_S_Triplicate_EUF	May 19, 2022	8:01AM	AUS Leachate - pH 5.0	M22-My0048433	X		X	
18	SX_IB_20220519_08_09_SS_Primary_EUF	May 19, 2022	8:09AM	AUS Leachate - pH 5.0	M22-My0048434	X		X	
19	SX_IB_20220519_11_52_SS_Primary_EUF	May 19, 2022	12:03PM	AUS Leachate - pH 5.0	M22-My0048435	X		X	
20	SX_OB_20220519_12_03_S_S_Primary_EUF	May 19, 2022	12:03PM	AUS Leachate - pH 5.0	M22-My0048436	X		X	

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<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
21	SX_IB_20220519_15_57_SS_Primary_EUF	May 19, 2022	3:57PM	AUS Leachate - pH 5.0	M22-My0048437	X		X	
22	SX_IB_20220519_15_57_SS_Duplicate_EUF	May 19, 2022	3:57PM	AUS Leachate - pH 5.0	M22-My0048438	X		X	
23	SX_IB_20220519_20_05_SS_Primary_EUF	May 19, 2022	8:05PM	AUS Leachate - pH 5.0	M22-My0048439	X		X	
24	SX_IB_20220519_20_05_SS_Duplicate_EUF	May 19, 2022	8:05PM	AUS Leachate - pH 5.0	M22-My0048440	X		X	



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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
25	SX_OB_20220519_20_34_S_S_Primary_EUF	May 19, 2022	8:34PM	AUS Leachate - pH 5.0	M22-My0048441	X		X	
26	SX_IB_20220520_00_05_SS_Primary_EUF	May 20, 2022	12:05AM	AUS Leachate - pH 5.0	M22-My0048442	X		X	
27	SX_IB_20220520_04_02_SS_Primary_EUF	May 20, 2022	4:02AM	AUS Leachate - pH 5.0	M22-My0048443	X		X	
28	SX_IB_20220520_04_11_SS_Primary_EUF	May 20, 2022	4:11AM	AUS Leachate - pH 5.0	M22-My0048444	X		X	
29	SX_OB_20220	May 19, 2022	8:01AM	AUS Leachate	M22-	X		X	

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<b>Project Name:</b>	20220520044241-Eurofin-52	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	519_08_01_S S_Triplicate_E UF			- Reagent Water	My0048445				
30	SX_IB_202205 19_08_09_SS _Primary_EUF	May 19, 2022	8:09AM	AUS Leachate - Reagent Water	M22- My0048446	X		X	
31	SX_IB_202205 19_11_52_SS _Primary_EUF	May 19, 2022	12:03PM	AUS Leachate - Reagent Water	M22- My0048447	X		X	
32	SX_OB_20220 519_12_03_S S_Primary_EU F	May 19, 2022	12:03PM	AUS Leachate - Reagent Water	M22- My0048448	X		X	
33	SX_IB_202205	May 19, 2022	3:57PM	AUS Leachate	M22-	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
33	SX_IB_20220519_15_57_SS_Primary_EUF	May 19, 2022	3:57PM	AUS Leachate - Reagent Water	M22-My0048449				
34	SX_IB_20220519_15_57_SS_Duplicate_EUF	May 19, 2022	3:57PM	AUS Leachate - Reagent Water	M22-My0048450	X		X	
35	SX_IB_20220519_20_05_SS_Primary_EUF	May 19, 2022	8:05PM	AUS Leachate - Reagent Water	M22-My0048451	X		X	
36	SX_IB_20220519_20_05_SS_Duplicate_EUF	May 19, 2022	8:05PM	AUS Leachate - Reagent Water	M22-My0048452	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
37	SX_OB_20220519_20_34_S_S_Primary_EUF	May 19, 2022	8:34PM	AUS Leachate - Reagent Water	M22-My0048453	X		X	
38	SX_IB_20220520_00_05_SS_Primary_EUF	May 20, 2022	12:05AM	AUS Leachate - Reagent Water	M22-My0048454	X		X	
39	SX_IB_20220520_04_02_SS_Primary_EUF	May 20, 2022	4:02AM	AUS Leachate - Reagent Water	M22-My0048455	X		X	
40	SX_IB_20220520_04_11_SS_Primary_EUF	May 20, 2022	4:11AM	AUS Leachate - Reagent Water	M22-My0048456	X		X	
<b>Test Counts</b>						24	12	40	12

## Internal Quality Control Review and Glossary

### General

- 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.
- All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
- Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
- 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

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

### Terms

<b>APHA</b>	American Public Health Association
<b>COC</b>	Chain of Custody
<b>CP</b>	Client Parent - QC was performed on samples pertaining to this report
<b>CRM</b>	Certified Reference Material (ISO17034) - reported as percent recovery.
<b>Dry</b>	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
<b>Duplicate</b>	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
<b>LOR</b>	Limit of Reporting.
<b>LCS</b>	Laboratory Control Sample - reported as percent recovery.
<b>Method Blank</b>	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.
<b>NCP</b>	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.
<b>RPD</b>	Relative Percent Difference between two Duplicate pieces of analysis.
<b>SPIKE</b>	Addition of the analyte to the sample and reported as percentage recovery.
<b>SRA</b>	Sample Receipt Advice
<b>Surr - Surrogate</b>	The addition of a like compound to the analyte target and reported as percentage recovery.
<b>TBTO</b>	Tributyltin oxide ( <i>bis</i> -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.
<b>TCLP</b>	Toxicity Characteristic Leaching Procedure
<b>TEQ</b>	Toxic Equivalency Quotient or Total Equivalence
<b>QSM</b>	US Department of Defense Quality Systems Manual Version 5.4
<b>US EPA</b>	United States Environmental Protection Agency
<b>WA DWER</b>	Sum of PFBA, PFPaA, 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

- 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.
- 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.
- 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.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- 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
<b>Method Blank</b>						
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
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 (PFTTrDA)	ug/L	< 0.01		0.01	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/L	< 0.01		0.01	Pass	
<b>Method Blank</b>						
<b>Perfluoroalkyl sulfonamido substances</b>						
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	
<b>Method Blank</b>						
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
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	
<b>Method Blank</b>						
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
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	
<b>LCS - % Recovery</b>						
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA)	%	105		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	113		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	81		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	84		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	90		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	81		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	68		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	92		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	104		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	99		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	70		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
<b>LCS - % Recovery</b>								
<b>Perfluoroalkyl sulfonamido substances</b>								
Perfluorooctane sulfonamide (FOSA)	%	72			50-150	Pass		
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	118			50-150	Pass		
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	55			50-150	Pass		
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	120			50-150	Pass		
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	71			50-150	Pass		
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	58			50-150	Pass		
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	71			50-150	Pass		
<b>LCS - % Recovery</b>								
<b>Perfluoroalkyl sulfonic acids (PFSA)</b>								
Perfluorobutanesulfonic acid (PFBS)	%	70			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	76			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	98			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	85			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	86			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	80			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	87			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	55			50-150	Pass		
<b>LCS - % Recovery</b>								
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	91			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	105			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	118			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
<b>Duplicate</b>								
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>								
				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-My0048444	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-My0048444	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-My0048444	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-My0048444	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-My0048444	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-My0048444	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-My0048444	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-My0048444	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-My0048444	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-My0048444	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-My0048444	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
<b>Duplicate</b>								
<b>Perfluoroalkyl sulfonamido substances</b>								
				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-My0048444	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0048444	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0048444	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0048444	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0048444	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-My0048444	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0048444	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-My0048444	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-My0048444	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-My0048444	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-My0048444	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-My0048444	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0048444	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-My0048444	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-My0048444	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-My0048444	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0048444	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0048444	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0048444	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-My0048446	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-My0048446	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-My0048446	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-My0048446	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-My0048446	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-My0048446	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-My0048446	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-My0048446	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-My0048446	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-My0048446	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-My0048446	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass



Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-My0048446	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0048446	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0048446	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0048446	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0048446	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0048446	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0048446	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-My0048446	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-My0048446	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-My0048446	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-My0048446	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-My0048446	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0048446	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-My0048446	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-My0048446	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-My0048446	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0048446	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0048446	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0048446	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCA)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-My0048450	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-My0048450	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-My0048450	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-My0048450	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-My0048450	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-My0048450	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-My0048450	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-My0048450	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-My0048450	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTTrDA)	M22-My0048450	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-My0048450	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-My0048450	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0048450	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0048450	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0048450	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0048450	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0048450	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0048450	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-My0048450	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-My0048450	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-My0048450	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-My0048450	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-My0048450	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0048450	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-My0048450	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-My0048450	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-My0048450	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0048450	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0048450	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0048450	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-PFAS
Mary Makarios	Senior Analyst-Sample Properties



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



NATA Accredited  
Accreditation Number 1261  
Site Number 1254

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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 **890217-S**  
Project name **20220520044241-Eurofin-52**  
Project ID **JC0927**  
Received Date **May 20, 2022**

Client Sample ID			SX_OB_20220 519_08_01_SS _TriPLICATE_EU F	SX_IB_202205 19_08_09_SS _Primary_EUF	SX_IB_202205 19_11_52_SS _Primary_EUF	SX_OB_20220 519_12_03_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0048417	M22- My0048418	M22- My0048421	M22- My0048422
Date Sampled			May 19, 2022	May 19, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>Total Recoverable Hydrocarbons</b>						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	31	< 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 <sup>N02</sup>	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) <sup>N04</sup>	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) <sup>N01</sup>	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
<b>Volatile Organics</b>						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
<b>Volatile Organics</b>						
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

Client Sample ID			SX_OB_20220 519_08_01_SS _TriPLICATE_EU F	SX_IB_202205 19_08_09_SS _Primary_EUF	SX_IB_202205 19_11_52_SS _Primary_EUF	SX_OB_20220 519_12_03_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0048417	M22- My0048418	M22- My0048421	M22- My0048422
Date Sampled			May 19, 2022	May 19, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>Volatile Organics</b>						
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	%	132	122	104	72
Toluene-d8 (surr.)	1	%	124	118	97	69
<b>Polycyclic Aromatic Hydrocarbons</b>						
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

Client Sample ID			SX_OB_20220 519_08_01_SS _TriPLICATE_EU F	SX_IB_202205 19_08_09_SS _Primary_EUF	SX_IB_202205 19_11_52_SS _Primary_EUF	SX_OB_20220 519_12_03_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0048417	M22- My0048418	M22- My0048421	M22- My0048422
Date Sampled			May 19, 2022	May 19, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>Polycyclic Aromatic Hydrocarbons</b>						
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 <sup>N07</sup>	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	%	94	105	71	65
p-Terphenyl-d14 (surr.)	1	%	93	91	87	110
<b>Organochlorine Pesticides</b>						
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
Dibutylchloroendate (surr.)	1	%	142	78	122	105
Tetrachloro-m-xylene (surr.)	1	%	89	87	124	105

Client Sample ID			SX_OB_20220 519_08_01_SS _TriPLICATE_EU F	SX_IB_202205 19_08_09_SS _Primary_EUF	SX_IB_202205 19_11_52_SS _Primary_EUF	SX_OB_20220 519_12_03_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0048417	M22- My0048418	M22- My0048421	M22- My0048422
Date Sampled			May 19, 2022	May 19, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>Polychlorinated Biphenyls</b>						
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
Dibutylchloroendate (surr.)	1	%	142	78	122	105
Tetrachloro-m-xylene (surr.)	1	%	89	87	124	105
<b>Phenols (Halogenated)</b>						
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
<b>Phenols (non-Halogenated)</b>						
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	%	57	65	int	int
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
<b>Chromium (hexavalent)</b>						
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
<b>Cyanide (total)</b>						
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
<b>Fluoride (Total)</b>						
Fluoride (Total)	100	mg/kg	< 100	< 100	< 100	130
<b>pH (1:5 Aqueous extract at 25°C as rec.)</b>						
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	8.2	8.4	8.0	8.4
<b>% Moisture</b>						
% Moisture	1	%	36	24	29	29
<b>Heavy Metals</b>						
Arsenic	2	mg/kg	34	22	18	60
Cadmium	1	mg/kg	< 1	< 1	< 1	< 1
Chromium	5	mg/kg	130	180	150	110
Copper	5	mg/kg	84	82	72	82
Lead	5	mg/kg	6.6	< 5	< 5	6.1
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1



Client Sample ID			SX_OB_20220 519_08_01_SS _TriPLICATE_EU F	SX_IB_202205 19_08_09_SS _Primary_EUF	SX_IB_202205 19_11_52_SS _Primary_EUF	SX_OB_20220 519_12_03_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0048417	M22- My0048418	M22- My0048421	M22- My0048422
Date Sampled			May 19, 2022	May 19, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>Heavy Metals</b>						
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	220	250	210	220
Selenium	5	mg/kg	< 5	< 5	< 5	< 5
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	160	140	150	130
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTrDA) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	56	140	60	57
13C5-PFPeA (surr.)	1	%	71	133	70	49
13C5-PFHxA (surr.)	1	%	63	139	82	60
13C4-PFHpA (surr.)	1	%	60	134	62	55
13C8-PFOA (surr.)	1	%	57	119	59	64
13C5-PFNA (surr.)	1	%	61	117	59	56
13C6-PFDA (surr.)	1	%	73	123	84	85
13C2-PFUnDA (surr.)	1	%	69	146	64	52
13C2-PFDoDA (surr.)	1	%	66	138	68	66
13C2-PFTeDA (surr.)	1	%	77	147	66	90
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	64	80	60	59
D3-N-MeFOSA (surr.)	1	%	80	129	82	63
D5-N-EtFOSA (surr.)	1	%	59	134	64	54
D7-N-MeFOSE (surr.)	1	%	58	130	84	74
D9-N-EtFOSE (surr.)	1	%	63	136	74	63
D5-N-EtFOSAA (surr.)	1	%	95	75	73	71
D3-N-MeFOSAA (surr.)	1	%	101	79	68	95



Client Sample ID			SX_OB_20220 519_08_01_SS _TriPLICATE_EUF	SX_IB_202205 19_08_09_SS _Primary_EUF	SX_IB_202205 19_11_52_SS _Primary_EUF	SX_OB_20220 519_12_03_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0048417	M22- My0048418	M22- My0048421	M22- My0048422
Date Sampled			May 19, 2022	May 19, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	55	147	52	52
18O2-PFHxS (surr.)	1	%	56	138	64	58
13C8-PFOS (surr.)	1	%	64	138	53	62
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	60	85	75	58
13C2-6:2 FTSA (surr.)	1	%	73	76	108	52
13C2-8:2 FTSA (surr.)	1	%	78	110	102	107
13C2-10:2 FTSA (surr.)	1	%	91	102	48	83
<b>PFASs Summations</b>						
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_IB_202205 19_15_57_SS _Primary_EUF	SX_IB_202205 19_15_57_SS _Duplicate_EUF	SX_IB_202205 19_20_05_SS _Primary_EUF	SX_IB_202205 19_20_05_SS _Duplicate_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0048423	M22- My0048424	M22- My0048425	M22- My0048426
Date Sampled			May 19, 2022	May 19, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>Total Recoverable Hydrocarbons</b>						
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 <sup>N02</sup>	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) <sup>N04</sup>	20	mg/kg	< 20	< 20	< 20	< 20

Client Sample ID			SX_IB_202205 19_15_57_SS_ Primary_EUF	SX_IB_202205 19_15_57_SS_ Duplicate_EUF	SX_IB_202205 19_20_05_SS_ Primary_EUF	SX_IB_202205 19_20_05_SS_ Duplicate_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0048423	M22- My0048424	M22- My0048425	M22- My0048426
Date Sampled			May 19, 2022	May 19, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>Total Recoverable Hydrocarbons</b>						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) <sup>N01</sup>	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
<b>Volatile Organics</b>						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
<b>Volatile Organics</b>						
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
1.1.1.1-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
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

Client Sample ID			SX_IB_202205 19_15_57_SS Primary_EUF	SX_IB_202205 19_15_57_SS Duplicate_EUF	SX_IB_202205 19_20_05_SS Primary_EUF	SX_IB_202205 19_20_05_SS Duplicate_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0048423	M22- My0048424	M22- My0048425	M22- My0048426
Date Sampled			May 19, 2022	May 19, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>Volatile Organics</b>						
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	%	65	119	108	78
Toluene-d8 (surr.)	1	%	64	126	98	75
<b>Polycyclic Aromatic Hydrocarbons</b>						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene <sup>N07</sup>	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	%	62	68	59	67
p-Terphenyl-d14 (surr.)	1	%	86	54	130	114

Client Sample ID			SX_IB_202205 19_15_57_SS Primary_EUF	SX_IB_202205 19_15_57_SS Duplicate_EUF	SX_IB_202205 19_20_05_SS Primary_EUF	SX_IB_202205 19_20_05_SS Duplicate_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0048423	M22- My0048424	M22- My0048425	M22- My0048426
Date Sampled			May 19, 2022	May 19, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>Organochlorine Pesticides</b>						
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
Dibutylchloroendate (surr.)	1	%	77	69	110	87
Tetrachloro-m-xylene (surr.)	1	%	80	60	79	117
<b>Polychlorinated Biphenyls</b>						
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
Dibutylchloroendate (surr.)	1	%	77	69	110	87
Tetrachloro-m-xylene (surr.)	1	%	80	60	79	117
<b>Phenols (Halogenated)</b>						
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

Client Sample ID			SX_IB_202205_19_15_57_SS_Primary_EUF	SX_IB_202205_19_15_57_SS_Duplicate_EUF	SX_IB_202205_19_20_05_SS_Primary_EUF	SX_IB_202205_19_20_05_SS_Duplicate_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-My0048423	M22-My0048424	M22-My0048425	M22-My0048426
Date Sampled			May 19, 2022	May 19, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>Phenols (non-Halogenated)</b>						
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	%	52	41	int	int
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
<b>Chromium (hexavalent)</b>						
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
<b>Cyanide (total)</b>						
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
<b>Fluoride (Total)</b>						
Fluoride (Total)	100	mg/kg	150	< 100	< 100	< 100
<b>pH (1:5 Aqueous extract at 25°C as rec.)</b>						
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	9.1	8.3	8.1	8.1
<b>% Moisture</b>						
% Moisture	1	%	29	28	24	24
<b>Heavy Metals</b>						
Arsenic	2	mg/kg	30	21	23	31
Cadmium	1	mg/kg	< 1	< 1	< 1	< 1
Chromium	5	mg/kg	150	130	140	170
Copper	5	mg/kg	75	63	65	80
Lead	5	mg/kg	< 5	< 5	< 5	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	260	190	200	240
Selenium	5	mg/kg	< 5	< 5	< 5	< 5
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	150	120	120	150
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTTrDA) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTTeDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	67	64	65	63
13C5-PFPeA (surr.)	1	%	76	84	72	110
13C5-PFHxA (surr.)	1	%	74	80	74	74

Client Sample ID			SX_IB_202205 19_15_57_SS Primary_EUF	SX_IB_202205 19_15_57_SS Duplicate_EUF	SX_IB_202205 19_20_05_SS Primary_EUF	SX_IB_202205 19_20_05_SS Duplicate_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0048423	M22- My0048424	M22- My0048425	M22- My0048426
Date Sampled			May 19, 2022	May 19, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
13C4-PFHpA (surr.)	1	%	68	77	66	63
13C8-PFOA (surr.)	1	%	66	66	75	54
13C5-PFNA (surr.)	1	%	72	50	62	72
13C6-PFDA (surr.)	1	%	75	82	79	66
13C2-PFUnDA (surr.)	1	%	58	76	70	57
13C2-PFDoDA (surr.)	1	%	83	86	87	85
13C2-PFTeDA (surr.)	1	%	137	116	92	102
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	85	79	78	76
D3-N-MeFOSA (surr.)	1	%	90	102	95	91
D5-N-EtFOSA (surr.)	1	%	86	79	77	81
D7-N-MeFOSE (surr.)	1	%	85	86	84	98
D9-N-EtFOSE (surr.)	1	%	82	98	70	91
D5-N-EtFOSAA (surr.)	1	%	80	81	109	112
D3-N-MeFOSAA (surr.)	1	%	105	146	127	105
<b>Perfluoroalkyl sulfonic acids (PFSA)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	80	85	81	86
18O2-PFHxS (surr.)	1	%	75	59	50	91
13C8-PFOS (surr.)	1	%	72	65	68	59
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	72	79	84	79
13C2-6:2 FTSA (surr.)	1	%	65	62	134	92

Client Sample ID			<a href="#">SX_IB_202205_19_15_57_SS_Primary_EUF</a>	<a href="#">SX_IB_202205_19_15_57_SS_Duplicate_EUF</a>	<a href="#">SX_IB_202205_19_20_05_SS_Primary_EUF</a>	<a href="#">SX_IB_202205_19_20_05_SS_Duplicate_EUF</a>
<b>Sample Matrix</b>			Soil	Soil	Soil	Soil
<b>Eurofins Sample No.</b>			M22-My0048423	M22-My0048424	M22-My0048425	M22-My0048426
<b>Date Sampled</b>			May 19, 2022	May 19, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
13C2-8:2 FTSA (surr.)	1	%	88	113	123	79
13C2-10:2 FTSA (surr.)	1	%	86	103	117	135
<b>PFASs Summations</b>						
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			<a href="#">SX_OB_20220_519_20_34_SS_Primary_EUF</a>	<a href="#">SX_IB_202205_20_00_05_SS_Primary_EUF</a>	<a href="#">SX_IB_202205_20_04_02_SS_Primary_EUF</a>	<a href="#">SX_IB_202205_20_04_11_SS_Primary_EUF</a>
<b>Sample Matrix</b>			Soil	Soil	Soil	Soil
<b>Eurofins Sample No.</b>			M22-My0048427	M22-My0048430	M22-My0048431	M22-My0048432
<b>Date Sampled</b>			May 19, 2022	May 20, 2022	May 20, 2022	May 20, 2022
Test/Reference	LOR	Unit				
<b>Total Recoverable Hydrocarbons</b>						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	42	24	< 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 <sup>N02</sup>	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) <sup>N04</sup>	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) <sup>N01</sup>	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
<b>Volatile Organics</b>						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
<b>Volatile Organics</b>						
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



Client Sample ID			SX_OB_20220 519_20_34_SS _Primary_EUF	SX_IB_202205 20_00_05_SS _Primary_EUF	SX_IB_202205 20_04_02_SS _Primary_EUF	SX_IB_202205 20_04_11_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0048427	M22- My0048430	M22- My0048431	M22- My0048432
Date Sampled			May 19, 2022	May 20, 2022	May 20, 2022	May 20, 2022
Test/Reference	LOR	Unit				
<b>Volatile Organics</b>						
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
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	%	141	123	90	79
Toluene-d8 (surr.)	1	%	111	129	84	79



Client Sample ID			SX_OB_20220 519_20_34_SS _Primary_EUF	SX_IB_202205 20_00_05_SS _Primary_EUF	SX_IB_202205 20_04_02_SS _Primary_EUF	SX_IB_202205 20_04_11_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0048427	M22- My0048430	M22- My0048431	M22- My0048432
Date Sampled			May 19, 2022	May 20, 2022	May 20, 2022	May 20, 2022
Test/Reference	LOR	Unit				
<b>Polycyclic Aromatic Hydrocarbons</b>						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene <sup>N07</sup>	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	%	54	54	58	82
p-Terphenyl-d14 (surr.)	1	%	58	57	97	103
<b>Organochlorine Pesticides</b>						
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

Client Sample ID			SX_OB_20220 519_20_34_SS _Primary_EUF	SX_IB_202205 20_00_05_SS _Primary_EUF	SX_IB_202205 20_04_02_SS _Primary_EUF	SX_IB_202205 20_04_11_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0048427	M22- My0048430	M22- My0048431	M22- My0048432
Date Sampled			May 19, 2022	May 20, 2022	May 20, 2022	May 20, 2022
Test/Reference	LOR	Unit				
<b>Organochlorine Pesticides</b>						
Dibutylchlorendate (surr.)	1	%	82	74	112	112
Tetrachloro-m-xylene (surr.)	1	%	58	53	109	127
<b>Polychlorinated Biphenyls</b>						
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	%	82	74	112	112
Tetrachloro-m-xylene (surr.)	1	%	58	53	109	127
<b>Phenols (Halogenated)</b>						
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
<b>Phenols (non-Halogenated)</b>						
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	%	50	51	int	75
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
<b>Chromium (hexavalent)</b>						
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
Fluoride (Total)	100	mg/kg	< 100	110	< 100	< 100
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	8.5	8.4	8.7	8.8
% Moisture	1	%	28	31	29	25

Client Sample ID			SX_OB_20220 519_20_34_SS _Primary_EUF	SX_IB_202205 20_00_05_SS _Primary_EUF	SX_IB_202205 20_04_02_SS _Primary_EUF	SX_IB_202205 20_04_11_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0048427	M22- My0048430	M22- My0048431	M22- My0048432
Date Sampled			May 19, 2022	May 20, 2022	May 20, 2022	May 20, 2022
Test/Reference	LOR	Unit				
<b>Heavy Metals</b>						
Arsenic	2	mg/kg	55	21	44	36
Cadmium	1	mg/kg	< 1	< 1	< 1	< 1
Chromium	5	mg/kg	100	120	120	160
Copper	5	mg/kg	59	62	55	78
Lead	5	mg/kg	8.5	5.4	6.3	5.3
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	140	190	190	240
Selenium	5	mg/kg	< 5	< 5	< 5	< 5
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	110	120	110	150
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTeDA) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	63	65	64	61
13C5-PFPeA (surr.)	1	%	84	82	97	54
13C5-PFHxA (surr.)	1	%	70	75	74	69
13C4-PFHpA (surr.)	1	%	70	67	69	55
13C8-PFOA (surr.)	1	%	69	56	63	54
13C5-PFNA (surr.)	1	%	69	69	74	51
13C6-PFDA (surr.)	1	%	79	93	54	59
13C2-PFUnDA (surr.)	1	%	71	86	68	72
13C2-PFDoDA (surr.)	1	%	75	82	74	73
13C2-PFTeDA (surr.)	1	%	101	128	95	70
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	79	77	75	72
D3-N-MeFOSA (surr.)	1	%	99	86	108	76

Client Sample ID			SX_OB_20220 519_20_34_SS _Primary_EUF	SX_IB_202205 20_00_05_SS _Primary_EUF	SX_IB_202205 20_04_02_SS _Primary_EUF	SX_IB_202205 20_04_11_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0048427	M22- My0048430	M22- My0048431	M22- My0048432
Date Sampled			May 19, 2022	May 20, 2022	May 20, 2022	May 20, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl sulfonamido substances</b>						
D5-N-EtFOSA (surr.)	1	%	78	86	83	68
D7-N-MeFOSE (surr.)	1	%	92	93	101	64
D9-N-EtFOSE (surr.)	1	%	79	73	69	59
D5-N-EtFOSAA (surr.)	1	%	87	90	111	73
D3-N-MeFOSAA (surr.)	1	%	82	92	83	87
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	78	66	97	76
18O2-PFHxS (surr.)	1	%	53	58	60	57
13C8-PFOS (surr.)	1	%	63	60	62	69
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	70	77	77	69
13C2-6:2 FTSA (surr.)	1	%	47	52	51	94
13C2-8:2 FTSA (surr.)	1	%	92	81	78	92
13C2-10:2 FTSA (surr.)	1	%	90	68	96	84
<b>PFASs Summations</b>						
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

**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 - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	May 20, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	May 20, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	May 20, 2022	14 Days
Volatile Organics - Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS	Melbourne	May 20, 2022	7 Days
Volatile Organics - Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)	Melbourne	May 20, 2022	7 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 20, 2022	14 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)	Melbourne	May 20, 2022	14 Days
Polychlorinated Biphenyls - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082)	Melbourne	May 20, 2022	28 Days
Phenols (Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 20, 2022	14 Days
Phenols (non-Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 20, 2022	14 Days
Chromium (hexavalent) - Method: LTM-INO-4100 Hexavalent Chromium by Spectrometric detection	Melbourne	May 20, 2022	28 Days
Cyanide (total) - Method: LTM-INO-4020 Total Free WAD Cyanide by CFA	Melbourne	May 23, 2022	14 Days
Fluoride (Total) - Method: LTM-INO-4150 Determination of Total Fluoride PART B – ISE	Melbourne	May 21, 2022	28 Days
pH (1:5 Aqueous extract at 25°C as rec.) - Method: LTM-GEN-7090 pH in soil by ISE	Melbourne	May 20, 2022	7 Days
Metals IWRG 621 : Metals M12 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	May 20, 2022	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Melbourne	May 20, 2022	14 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 26, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 20, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFASs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 26, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 20, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 20, 2022	

**Repeat Samples**

Description	Testing Site	Extracted	Holding Time
<b>IWRG 621 WGTP Suite</b>			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	May 20, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	May 20, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	May 20, 2022	14 Days
Volatile Organics - Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS	Melbourne	May 20, 2022	7 Days
Volatile Organics - Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)	Melbourne	May 20, 2022	7 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 20, 2022	14 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)	Melbourne	May 20, 2022	14 Days
Polychlorinated Biphenyls - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082)	Melbourne	May 20, 2022	28 Days
Phenols (Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 20, 2022	14 Days
Phenols (non-Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 20, 2022	14 Days
Chromium (hexavalent) - Method: LTM-INO-4100 Hexavalent Chromium by Spectrometric detection	Melbourne	May 20, 2022	28 Days
Cyanide (total) - Method: LTM-INO-4020 Total Free WAD Cyanide by CFA	Melbourne	May 23, 2022	14 Days
Fluoride (Total) - Method: LTM-INO-4150 Determination of Total Fluoride PART B – ISE	Melbourne	May 21, 2022	28 Days
pH (1:5 Aqueous extract at 25°C as rec.) - Method: LTM-GEN-7090 pH in soil by ISE	Melbourne	May 20, 2022	7 Days
Metals IWRG 621 : Metals M12 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	May 20, 2022	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Melbourne	May 20, 2022	14 Days
<b>Per- and Polyfluoroalkyl Substances (PFASs)</b>			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 26, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 20, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 26, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 20, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 20, 2022	

<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	May 20, 2022 11:30 AM
<b>Address:</b>	3/224 Glen Osmond Road Fullarton SA 5063	<b>Report #:</b>	890217	<b>Due:</b>	May 27, 2022
<b>Project Name:</b>	20220520044241-Eurofin-52	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	SX_OB_20220519_08_01_S_S_Triplicate_EUF	May 19, 2022	8:01AM	Soil	M22-My0048417		X	X	X
2	SX_IB_20220519_08_09_SS_Primary_EUF	May 19, 2022	8:09AM	Soil	M22-My0048418		X	X	X
3	SX_IB_20220519_08_45_SR_Rinsate_EUF	May 19, 2022	8:45AM	Water	M22-My0048419			X	
4	SX_IB_20220519_08_46_SB	May 19, 2022	8:46AM	Water	M22-My0048420			X	

<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	May 20, 2022 11:30 AM
<b>Address:</b>	3/224 Glen Osmond Road Fullarton SA 5063	<b>Report #:</b>	890217	<b>Due:</b>	May 27, 2022
<b>Project Name:</b>	20220520044241-Eurofin-52	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	Blank_EUF								
5	SX_IB_20220519_11_52_SS_Primary_EUF	May 19, 2022	12:03PM	Soil	M22-My0048421		X	X	X
6	SX_OB_20220519_12_03_SS_Primary_EUF	May 19, 2022	12:03PM	Soil	M22-My0048422		X	X	X
7	SX_IB_20220519_15_57_SS_Primary_EUF	May 19, 2022	3:57PM	Soil	M22-My0048423		X	X	X
8	SX_IB_20220519_15_57_SS_Duplicate_EU	May 19, 2022	3:57PM	Soil	M22-My0048424		X	X	X



<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	May 20, 2022 11:30 AM
<b>Address:</b>	3/224 Glen Osmond Road Fullarton SA 5063	<b>Report #:</b>	890217	<b>Due:</b>	May 27, 2022
<b>Project Name:</b>	20220520044241-Eurofin-52	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	_Duplicate_EU F								
9	SX_IB_20220519_20_05_SS_Primary_EUF	May 19, 2022	8:05PM	Soil	M22-My0048425		X	X	X
10	SX_IB_20220519_20_05_SS_Duplicate_EUF	May 19, 2022	8:05PM	Soil	M22-My0048426		X	X	X
11	SX_OB_20220519_20_34_SS_Primary_EUF	May 19, 2022	8:34PM	Soil	M22-My0048427		X	X	X
12	SX_IB_202205	May 19, 2022	8:35PM	Water	M22-			X	

**Company Name:** Agon Environmental Pty Ltd - VIC  
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**Received:** May 20, 2022 11:30 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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	19_20_35_SR_Rinsate_EUF				My0048428				
13	SX_IB_20220519_20_36_SB_Blank_EUF	May 19, 2022	8:36PM	Water	M22-My0048429		X		
14	SX_IB_20220520_00_05_SS_Primary_EUF	May 20, 2022	12:05AM	Soil	M22-My0048430		X	X	X
15	SX_IB_20220520_04_02_SS_Primary_EUF	May 20, 2022	4:02AM	Soil	M22-My0048431		X	X	X
16	SX_IB_20220520_04_11_SS_Primary_EUF	May 20, 2022	4:11AM	Soil	M22-My0048432		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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
17	SX_OB_20220519_08_01_S_S_Triplicate_EUF	May 19, 2022	8:01AM	AUS Leachate - pH 5.0	M22-My0048433	X		X	
18	SX_IB_20220519_08_09_SS_Primary_EUF	May 19, 2022	8:09AM	AUS Leachate - pH 5.0	M22-My0048434	X		X	
19	SX_IB_20220519_11_52_SS_Primary_EUF	May 19, 2022	12:03PM	AUS Leachate - pH 5.0	M22-My0048435	X		X	
20	SX_OB_20220519_12_03_S_S_Primary_EUF	May 19, 2022	12:03PM	AUS Leachate - pH 5.0	M22-My0048436	X		X	

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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
21	SX_IB_20220519_15_57_SS_Primary_EUF	May 19, 2022	3:57PM	AUS Leachate - pH 5.0	M22-My0048437	X		X	
22	SX_IB_20220519_15_57_SS_Duplicate_EUF	May 19, 2022	3:57PM	AUS Leachate - pH 5.0	M22-My0048438	X		X	
23	SX_IB_20220519_20_05_SS_Primary_EUF	May 19, 2022	8:05PM	AUS Leachate - pH 5.0	M22-My0048439	X		X	
24	SX_IB_20220519_20_05_SS_Duplicate_EUF	May 19, 2022	8:05PM	AUS Leachate - pH 5.0	M22-My0048440	X		X	

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**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
25	SX_OB_20220519_20_34_S_S_Primary_EUF	May 19, 2022	8:34PM	AUS Leachate - pH 5.0	M22-My0048441	X		X	
26	SX_IB_20220520_00_05_SS_Primary_EUF	May 20, 2022	12:05AM	AUS Leachate - pH 5.0	M22-My0048442	X		X	
27	SX_IB_20220520_04_02_SS_Primary_EUF	May 20, 2022	4:02AM	AUS Leachate - pH 5.0	M22-My0048443	X		X	
28	SX_IB_20220520_04_11_SS_Primary_EUF	May 20, 2022	4:11AM	AUS Leachate - pH 5.0	M22-My0048444	X		X	
29	SX_OB_20220	May 19, 2022	8:01AM	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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	519_08_01_S S_Triplicate_E UF			- Reagent Water	My0048445				
30	SX_IB_202205 19_08_09_SS _Primary_EUF	May 19, 2022	8:09AM	AUS Leachate - Reagent Water	M22- My0048446	X		X	
31	SX_IB_202205 19_11_52_SS _Primary_EUF	May 19, 2022	12:03PM	AUS Leachate - Reagent Water	M22- My0048447	X		X	
32	SX_OB_20220 519_12_03_S S_Primary_EU F	May 19, 2022	12:03PM	AUS Leachate - Reagent Water	M22- My0048448	X		X	
33	SX_IB_202205	May 19, 2022	3:57PM	AUS Leachate	M22-	X		X	

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<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
33	SX_IB_20220519_15_57_SS_Primary_EUF	May 19, 2022	3:57PM	AUS Leachate - Reagent Water	M22-My0048449				
34	SX_IB_20220519_15_57_SS_Duplicate_EUF	May 19, 2022	3:57PM	AUS Leachate - Reagent Water	M22-My0048450	X		X	
35	SX_IB_20220519_20_05_SS_Primary_EUF	May 19, 2022	8:05PM	AUS Leachate - Reagent Water	M22-My0048451	X		X	
36	SX_IB_20220519_20_05_SS_Duplicate_EUF	May 19, 2022	8:05PM	AUS Leachate - Reagent Water	M22-My0048452	X		X	

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<b>Project Name:</b>	20220520044241-Eurofin-52	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
37	SX_OB_20220519_20_34_S_S_Primary_EUF	May 19, 2022	8:34PM	AUS Leachate - Reagent Water	M22-My0048453	X		X	
38	SX_IB_20220520_00_05_SS_Primary_EUF	May 20, 2022	12:05AM	AUS Leachate - Reagent Water	M22-My0048454	X		X	
39	SX_IB_20220520_04_02_SS_Primary_EUF	May 20, 2022	4:02AM	AUS Leachate - Reagent Water	M22-My0048455	X		X	
40	SX_IB_20220520_04_11_SS_Primary_EUF	May 20, 2022	4:11AM	AUS Leachate - Reagent Water	M22-My0048456	X		X	
<b>Test Counts</b>						24	12	40	12



## Internal Quality Control Review and Glossary

### General

- 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.
- All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
- Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
- 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

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

### Terms

<b>APHA</b>	American Public Health Association
<b>COC</b>	Chain of Custody
<b>CP</b>	Client Parent - QC was performed on samples pertaining to this report
<b>CRM</b>	Certified Reference Material (ISO17034) - reported as percent recovery.
<b>Dry</b>	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
<b>Duplicate</b>	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
<b>LOR</b>	Limit of Reporting.
<b>LCS</b>	Laboratory Control Sample - reported as percent recovery.
<b>Method Blank</b>	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.
<b>NCP</b>	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.
<b>RPD</b>	Relative Percent Difference between two Duplicate pieces of analysis.
<b>SPIKE</b>	Addition of the analyte to the sample and reported as percentage recovery.
<b>SRA</b>	Sample Receipt Advice
<b>Surr - Surrogate</b>	The addition of a like compound to the analyte target and reported as percentage recovery.
<b>TBTO</b>	Tributyltin oxide ( <i>bis</i> -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.
<b>TCLP</b>	Toxicity Characteristic Leaching Procedure
<b>TEQ</b>	Toxic Equivalency Quotient or Total Equivalence
<b>QSM</b>	US Department of Defense Quality Systems Manual Version 5.4
<b>US EPA</b>	United States Environmental Protection Agency
<b>WA DWER</b>	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

- 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.
- 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.
- 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.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- 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
<b>Method Blank</b>							
<b>Total Recoverable Hydrocarbons</b>							
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	
<b>Method Blank</b>							
<b>Volatile Organics</b>							
Hexachlorobutadiene	mg/kg	< 0.5			0.5	Pass	
<b>Method Blank</b>							
<b>Volatile Organics</b>							
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	
<b>Method Blank</b>							
<b>Polycyclic Aromatic Hydrocarbons</b>							
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	
<b>Method Blank</b>							
<b>Organochlorine Pesticides</b>							
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	
<b>Method Blank</b>							
<b>Polychlorinated Biphenyls</b>							
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	
<b>Method Blank</b>							
<b>Phenols (Halogenated)</b>							
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	
<b>Method Blank</b>							
<b>Phenols (non-Halogenated)</b>							
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	
<b>Method Blank</b>							
Chromium (hexavalent)	mg/kg	< 1			1	Pass	
Cyanide (total)	mg/kg	< 5			5	Pass	
Fluoride (Total)	mg/kg	< 100			100	Pass	
<b>Method Blank</b>							
<b>Heavy Metals</b>							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 1			1	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	< 5			5	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	
<b>Method Blank</b>						
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
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	
<b>Method Blank</b>						
<b>Perfluoroalkyl sulfonamido substances</b>						
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	
<b>Method Blank</b>						
<b>Perfluoroalkyl sulfonic acids (PFSAs)</b>						
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	
<b>Method Blank</b>						
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
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	
<b>LCS - % Recovery</b>						
<b>Total Recoverable Hydrocarbons</b>						
TRH C6-C9	%	113		70-130	Pass	
TRH C10-C14	%	99		70-130	Pass	
Naphthalene	%	72		70-130	Pass	
TRH C6-C10	%	111		70-130	Pass	
TRH >C10-C16	%	95		70-130	Pass	
<b>LCS - % Recovery</b>						
<b>Volatile Organics</b>						
1.1-Dichloroethene	%	110		70-130	Pass	
1.1.1-Trichloroethane	%	94		70-130	Pass	
1.2-Dichlorobenzene	%	101		70-130	Pass	
1.2-Dichloroethane	%	119		70-130	Pass	
Benzene	%	96		70-130	Pass	
Ethylbenzene	%	93		70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
m&p-Xylenes	%	88			70-130	Pass	
Toluene	%	88			70-130	Pass	
Trichloroethene	%	103			70-130	Pass	
Xylenes - Total*	%	89			70-130	Pass	
<b>LCS - % Recovery</b>							
<b>Polycyclic Aromatic Hydrocarbons</b>							
Acenaphthene	%	97			70-130	Pass	
Acenaphthylene	%	110			70-130	Pass	
Anthracene	%	95			70-130	Pass	
Benz(a)anthracene	%	78			70-130	Pass	
Benzo(a)pyrene	%	99			70-130	Pass	
Benzo(b&i)fluoranthene	%	93			70-130	Pass	
Benzo(g,h,i)perylene	%	83			70-130	Pass	
Benzo(k)fluoranthene	%	108			70-130	Pass	
Chrysene	%	107			70-130	Pass	
Dibenz(a,h)anthracene	%	81			70-130	Pass	
Fluoranthene	%	106			70-130	Pass	
Fluorene	%	103			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	79			70-130	Pass	
Naphthalene	%	100			70-130	Pass	
Phenanthrene	%	91			70-130	Pass	
Pyrene	%	106			70-130	Pass	
<b>LCS - % Recovery</b>							
<b>Organochlorine Pesticides</b>							
Chlordanes - Total	%	81			70-130	Pass	
4,4'-DDD	%	83			70-130	Pass	
4,4'-DDE	%	82			70-130	Pass	
4,4'-DDT	%	82			70-130	Pass	
a-HCH	%	88			70-130	Pass	
Aldrin	%	81			70-130	Pass	
b-HCH	%	101			70-130	Pass	
d-HCH	%	110			70-130	Pass	
Dieldrin	%	82			70-130	Pass	
Endosulfan I	%	82			70-130	Pass	
Endosulfan II	%	80			70-130	Pass	
Endosulfan sulphate	%	73			70-130	Pass	
Endrin	%	79			70-130	Pass	
Endrin aldehyde	%	83			70-130	Pass	
Endrin ketone	%	80			70-130	Pass	
g-HCH (Lindane)	%	108			70-130	Pass	
Heptachlor	%	82			70-130	Pass	
Heptachlor epoxide	%	82			70-130	Pass	
Hexachlorobenzene	%	84			70-130	Pass	
Methoxychlor	%	100			70-130	Pass	
<b>LCS - % Recovery</b>							
<b>Polychlorinated Biphenyls</b>							
Aroclor-1260	%	88			70-130	Pass	
<b>LCS - % Recovery</b>							
<b>Phenols (Halogenated)</b>							
2-Chlorophenol	%	89			25-140	Pass	
2,4-Dichlorophenol	%	115			25-140	Pass	
2,4,5-Trichlorophenol	%	114			25-140	Pass	
2,4,6-Trichlorophenol	%	94			25-140	Pass	
2,6-Dichlorophenol	%	71			25-140	Pass	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
4-Chloro-3-methylphenol	%	93		25-140	Pass	
Pentachlorophenol	%	77		25-140	Pass	
Tetrachlorophenols - Total	%	83		25-140	Pass	
<b>LCS - % Recovery</b>						
<b>Phenols (non-Halogenated)</b>						
2-Cyclohexyl-4,6-dinitrophenol	%	35		25-140	Pass	
2-Methyl-4,6-dinitrophenol	%	49		25-140	Pass	
2-Nitrophenol	%	98		25-140	Pass	
2,4-Dimethylphenol	%	67		25-140	Pass	
2,4-Dinitrophenol	%	82		25-140	Pass	
2-Methylphenol (o-Cresol)	%	78		25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	99		25-140	Pass	
4-Nitrophenol	%	97		25-140	Pass	
Dinoseb	%	40		25-140	Pass	
Phenol	%	96		25-140	Pass	
<b>LCS - % Recovery</b>						
Chromium (hexavalent)	%	74		70-130	Pass	
Cyanide (total)	%	103		70-130	Pass	
Fluoride (Total)	%	84		70-130	Pass	
<b>LCS - % Recovery</b>						
<b>Heavy Metals</b>						
Arsenic	%	104		80-120	Pass	
Cadmium	%	108		80-120	Pass	
Chromium	%	104		80-120	Pass	
Copper	%	104		80-120	Pass	
Lead	%	111		80-120	Pass	
Mercury	%	104		80-120	Pass	
Molybdenum	%	104		80-120	Pass	
Nickel	%	100		80-120	Pass	
Selenium	%	103		80-120	Pass	
Silver	%	105		80-120	Pass	
Tin	%	102		80-120	Pass	
Zinc	%	114		80-120	Pass	
<b>LCS - % Recovery</b>						
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA)	%	61		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	61		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	60		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	59		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	61		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	61		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	63		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	65		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	63		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	53		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	58		50-150	Pass	
<b>LCS - % Recovery</b>						
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA)	%	53		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	62		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	63		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	60		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	61		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	56		50-150	Pass	



Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	54			50-150	Pass		
<b>LCS - % Recovery</b>								
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>								
Perfluorobutanesulfonic acid (PFBS)	%	58			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	57			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	59			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	58			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	59			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	56			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	60			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	55			50-150	Pass		
<b>LCS - % Recovery</b>								
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	63			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	61			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	76			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	59			50-150	Pass		
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
<b>Spike - % Recovery</b>								
<b>Total Recoverable Hydrocarbons</b>				Result 1				
TRH C6-C9	M22-My0053197	NCP	%	100		70-130	Pass	
TRH C10-C14	M22-My0043949	NCP	%	100		70-130	Pass	
Naphthalene	M22-My0053197	NCP	%	78		70-130	Pass	
TRH C6-C10	M22-My0053197	NCP	%	100		70-130	Pass	
TRH >C10-C16	M22-My0043949	NCP	%	96		70-130	Pass	
<b>Spike - % Recovery</b>								
<b>Volatile Organics</b>				Result 1				
1.1-Dichloroethene	M22-My0053197	NCP	%	101		70-130	Pass	
1.1.1-Trichloroethane	M22-My0053197	NCP	%	89		70-130	Pass	
1.2-Dichlorobenzene	M22-My0053197	NCP	%	100		70-130	Pass	
1.2-Dichloroethane	M22-My0053197	NCP	%	106		70-130	Pass	
Benzene	M22-My0053197	NCP	%	92		70-130	Pass	
Ethylbenzene	M22-My0053197	NCP	%	89		70-130	Pass	
m&p-Xylenes	M22-My0053197	NCP	%	85		70-130	Pass	
o-Xylene	M22-My0053197	NCP	%	86		70-130	Pass	
Trichloroethene	M22-My0053197	NCP	%	98		70-130	Pass	
Xylenes - Total*	M22-My0053197	NCP	%	85		70-130	Pass	
<b>Spike - % Recovery</b>								
<b>Polycyclic Aromatic Hydrocarbons</b>				Result 1				
Acenaphthene	M22-My0044147	NCP	%	87		70-130	Pass	
Acenaphthylene	M22-My0044147	NCP	%	83		70-130	Pass	
Anthracene	M22-My0044147	NCP	%	77		70-130	Pass	
Benz(a)anthracene	M22-My0044147	NCP	%	86		70-130	Pass	
Benzo(a)pyrene	M22-My0044147	NCP	%	88		70-130	Pass	
Benzo(b&j)fluoranthene	M22-My0044147	NCP	%	83		70-130	Pass	
Benzo(g,h,i)perylene	M22-My0044147	NCP	%	115		70-130	Pass	
Benzo(k)fluoranthene	M22-My0044147	NCP	%	127		70-130	Pass	
Chrysene	M22-My0044147	NCP	%	106		70-130	Pass	
Dibenz(a,h)anthracene	M22-My0044147	NCP	%	99		70-130	Pass	
Fluoranthene	M22-My0044147	NCP	%	83		70-130	Pass	
Fluorene	M22-My0044147	NCP	%	85		70-130	Pass	
Indeno(1,2,3-cd)pyrene	M22-My0044147	NCP	%	77		70-130	Pass	
Naphthalene	M22-My0044147	NCP	%	79		70-130	Pass	
Phenanthrene	M22-My0044147	NCP	%	85		70-130	Pass	



Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Pyrene	M22-My0044147	NCP	%	79		70-130	Pass	
<b>Spike - % Recovery</b>								
<b>Organochlorine Pesticides</b>				Result 1				
Chlordanes - Total	M22-My0046540	NCP	%	104		70-130	Pass	
4.4'-DDD	M22-My0046540	NCP	%	107		70-130	Pass	
4.4'-DDE	M22-My0046540	NCP	%	95		70-130	Pass	
4.4'-DDT	M22-My0046540	NCP	%	117		70-130	Pass	
a-HCH	M22-My0046540	NCP	%	104		70-130	Pass	
Aldrin	M22-My0046540	NCP	%	84		70-130	Pass	
b-HCH	M22-My0046540	NCP	%	106		70-130	Pass	
d-HCH	M22-My0046540	NCP	%	102		70-130	Pass	
Dieldrin	M22-My0046540	NCP	%	104		70-130	Pass	
Endosulfan I	M22-My0046540	NCP	%	113		70-130	Pass	
Endosulfan II	M22-My0046540	NCP	%	92		70-130	Pass	
Endosulfan sulphate	M22-My0046540	NCP	%	101		70-130	Pass	
Endrin	M22-My0046540	NCP	%	88		70-130	Pass	
Endrin aldehyde	M22-My0046540	NCP	%	90		70-130	Pass	
Endrin ketone	M22-My0046540	NCP	%	127		70-130	Pass	
g-HCH (Lindane)	M22-My0046540	NCP	%	115		70-130	Pass	
Heptachlor	M22-My0046540	NCP	%	103		70-130	Pass	
Heptachlor epoxide	M22-My0046540	NCP	%	100		70-130	Pass	
Hexachlorobenzene	M22-My0046540	NCP	%	84		70-130	Pass	
Methoxychlor	M22-My0046540	NCP	%	111		70-130	Pass	
<b>Spike - % Recovery</b>								
<b>Phenols (Halogenated)</b>				Result 1				
2-Chlorophenol	M22-My0044147	NCP	%	76		30-130	Pass	
2,4-Dichlorophenol	M22-My0044147	NCP	%	64		30-130	Pass	
2,4,5-Trichlorophenol	M22-My0028305	NCP	%	40		30-130	Pass	
2,4,6-Trichlorophenol	M22-My0044147	NCP	%	70		30-130	Pass	
2,6-Dichlorophenol	M22-My0044147	NCP	%	66		30-130	Pass	
4-Chloro-3-methylphenol	M22-My0044147	NCP	%	78		30-130	Pass	
Pentachlorophenol	M22-My0044147	NCP	%	58		30-130	Pass	
Tetrachlorophenols - Total	M22-My0044147	NCP	%	47		30-130	Pass	
<b>Spike - % Recovery</b>								
<b>Phenols (non-Halogenated)</b>				Result 1				
2-Cyclohexyl-4,6-dinitrophenol	M22-My0044147	NCP	%	52		30-130	Pass	
2-Methyl-4,6-dinitrophenol	M22-My0044147	NCP	%	44		30-130	Pass	
2-Nitrophenol	M22-My0044147	NCP	%	85		30-130	Pass	
2,4-Dimethylphenol	M22-My0044147	NCP	%	65		30-130	Pass	
2-Methylphenol (o-Cresol)	M22-My0044147	NCP	%	58		30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M22-My0044147	NCP	%	79		30-130	Pass	
4-Nitrophenol	M22-My0044147	NCP	%	35		30-130	Pass	
Dinoseb	M22-My0044147	NCP	%	76		30-130	Pass	
Phenol	M22-My0044147	NCP	%	80		30-130	Pass	
<b>Spike - % Recovery</b>								
				Result 1				
Cyanide (total)	M22-My0043543	NCP	%	98		70-130	Pass	
Fluoride (Total)	R22-My0028800	NCP	%	97		70-130	Pass	
<b>Spike - % Recovery</b>								
<b>Heavy Metals</b>				Result 1				
Arsenic	M22-My0043925	NCP	%	101		75-125	Pass	
Cadmium	M22-My0043925	NCP	%	104		75-125	Pass	
Chromium	M22-My0043925	NCP	%	99		75-125	Pass	
Copper	M22-My0043925	NCP	%	106		75-125	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Lead	M22-My0049921	NCP	%	105		75-125	Pass	
Mercury	M22-My0043925	NCP	%	108		75-125	Pass	
Molybdenum	M22-My0043925	NCP	%	108		75-125	Pass	
Nickel	M22-My0043925	NCP	%	99		75-125	Pass	
Selenium	M22-My0043925	NCP	%	101		75-125	Pass	
Silver	M22-My0043925	NCP	%	104		75-125	Pass	
Tin	M22-My0043925	NCP	%	113		75-125	Pass	
Zinc	M22-My0049921	NCP	%	87		75-125	Pass	
<b>Spike - % Recovery</b>								
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>				Result 1				
Perfluorobutanoic acid (PFBA)	M22-My0044595	NCP	%	92		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M22-My0044595	NCP	%	56		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M22-My0044595	NCP	%	82		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-My0044595	NCP	%	104		50-150	Pass	
Perfluorooctanoic acid (PFOA)	M22-My0044595	NCP	%	91		50-150	Pass	
Perfluorononanoic acid (PFNA)	M22-My0044595	NCP	%	86		50-150	Pass	
Perfluorodecanoic acid (PFDA)	M22-My0044595	NCP	%	108		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-My0044595	NCP	%	98		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-My0044595	NCP	%	97		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-My0044595	NCP	%	63		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-My0044595	NCP	%	108		50-150	Pass	
<b>Spike - % Recovery</b>								
<b>Perfluoroalkyl sulfonamido substances</b>				Result 1				
Perfluorooctane sulfonamide (FOSA)	M22-My0044595	NCP	%	81		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0044595	NCP	%	73		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0044595	NCP	%	77		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0044595	NCP	%	82		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0044595	NCP	%	87		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0044595	NCP	%	99		50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0044595	NCP	%	62		50-150	Pass	
<b>Spike - % Recovery</b>								
<b>Perfluoroalkyl sulfonic acids (PFSAs)</b>				Result 1				
Perfluorobutanesulfonic acid (PFBS)	M22-My0044595	NCP	%	89		50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-My0044595	NCP	%	121		50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-My0044595	NCP	%	83		50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-My0044595	NCP	%	119		50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0044595	NCP	%	83		50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-My0044595	NCP	%	66		50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-My0044595	NCP	%	73		50-150	Pass	
<b>Spike - % Recovery</b>								

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-My0044595	NCP	%	91			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0044595	NCP	%	88			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0044595	NCP	%	79			50-150	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
<b>Duplicate</b>									
<b>Polycyclic Aromatic Hydrocarbons</b>				Result 1	Result 2	RPD			
Acenaphthene	M22-My0046353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	M22-My0046353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	M22-My0046353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	M22-My0046353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	M22-My0046353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&i)fluoranthene	M22-My0046353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g,h,i)perylene	M22-My0046353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	M22-My0046353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	M22-My0046353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a,h)anthracene	M22-My0046353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	M22-My0046353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	M22-My0046353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M22-My0046353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	M22-My0046353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	M22-My0046353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	M22-My0046353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
<b>Duplicate</b>									
<b>Organochlorine Pesticides</b>				Result 1	Result 2	RPD			
Chlordanes - Total	M22-My0046353	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4,4'-DDD	M22-My0046353	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4,4'-DDE	M22-My0046353	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4,4'-DDT	M22-My0046353	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	M22-My0046353	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	M22-My0046353	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	M22-My0046353	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	M22-My0046353	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	M22-My0046353	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	M22-My0046353	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	M22-My0046353	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	M22-My0046353	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	M22-My0046353	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	M22-My0046353	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	M22-My0046353	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	M22-My0046353	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	M22-My0046353	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	M22-My0046353	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	M22-My0046353	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	M22-My0046353	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	M22-My0046353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate								
<b>Polychlorinated Biphenyls</b>				Result 1	Result 2	RPD		
Aroclor-1016	M22-My0046353	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	M22-My0046353	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	M22-My0046353	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	M22-My0046353	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	M22-My0046353	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	M22-My0046353	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	M22-My0046353	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	M22-My0046353	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
<b>Phenols (Halogenated)</b>				Result 1	Result 2	RPD		
2-Chlorophenol	M22-My0046353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dichlorophenol	M22-My0046353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4,5-Trichlorophenol	M22-My0046353	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2,4,6-Trichlorophenol	M22-My0046353	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2,6-Dichlorophenol	M22-My0046353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chloro-3-methylphenol	M22-My0046353	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	M22-My0046353	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	M22-My0046353	NCP	mg/kg	< 10	< 10	<1	30%	Pass
Duplicate								
<b>Phenols (non-Halogenated)</b>				Result 1	Result 2	RPD		
2-Cyclohexyl-4,6-dinitrophenol	M22-My0046353	NCP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4,6-dinitrophenol	M22-My0046353	NCP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	M22-My0046353	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2,4-Dimethylphenol	M22-My0046353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dinitrophenol	M22-My0046353	NCP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	M22-My0046353	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	M22-My0046353	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	M22-My0046353	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	M22-My0046353	NCP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	M22-My0046353	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Chromium (hexavalent)	M22-My0058118	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Cyanide (total)	M22-My0043884	NCP	mg/kg	< 5	< 5	<1	30%	Pass
pH (1:5 Aqueous extract at 25°C as rec.)	M22-My0045980	NCP	pH Units	4.2	5.1	pass	30%	Pass
Duplicate								
<b>Heavy Metals</b>				Result 1	Result 2	RPD		
Arsenic	M22-My0043950	NCP	mg/kg	130	130	2.0	30%	Pass
Cadmium	M22-My0043950	NCP	mg/kg	30	31	2.0	30%	Pass
Chromium	M22-My0043950	NCP	mg/kg	40	40	<1	30%	Pass
Copper	M22-My0043950	NCP	mg/kg	330	330	<1	30%	Pass
Lead	M22-My0049920	NCP	mg/kg	8.6	8.6	<1	30%	Pass
Mercury	M22-My0043950	NCP	mg/kg	1.9	1.9	1.0	30%	Pass
Molybdenum	M22-My0043950	NCP	mg/kg	32	32	2.0	30%	Pass
Nickel	M22-My0043950	NCP	mg/kg	22	23	3.0	30%	Pass
Selenium	M22-My0043950	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Silver	M22-My0043950	NCP	mg/kg	17	18	1.0	30%	Pass
Tin	M22-My0043950	NCP	mg/kg	21	21	1.0	30%	Pass
Zinc	M22-My0043950	NCP	mg/kg	8900	9000	1.0	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
% Moisture	M22-My0048421	CP	%	29	27	8.0	30%	Pass

Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C6-C9	M22-My0048424	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C10-C14	M22-My0048424	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C15-C28	M22-My0048424	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH C29-C36	M22-My0048424	CP	mg/kg	< 50	< 50	<1	30%	Pass
Naphthalene	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
TRH C6-C10	M22-My0048424	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH >C10-C16	M22-My0048424	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	M22-My0048424	CP	mg/kg	< 100	< 100	<1	30%	Pass
TRH >C34-C40	M22-My0048424	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
Hexachlorobutadiene	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
1.1-Dichloroethane	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.4-Trichlorobenzene	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1-Dichloroethene	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.1-Trichloroethane	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.1.2-Tetrachloroethane	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.2-Trichloroethane	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.2.2-Tetrachloroethane	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dibromoethane	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichlorobenzene	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichloroethane	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichloropropane	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.3-Trichloropropane	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.4-Trimethylbenzene	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3-Dichlorobenzene	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3-Dichloropropane	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3.5-Trimethylbenzene	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.4-Dichlorobenzene	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Butanone (MEK)	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Propanone (Acetone)	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chlorotoluene	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Methyl-2-pentanone (MIBK)	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Allyl chloride	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzene	M22-My0048424	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Bromobenzene	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromochloromethane	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromodichloromethane	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromoform	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromomethane	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon disulfide	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon Tetrachloride	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chlorobenzene	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroethane	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroform	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloromethane	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.2-Dichloroethene	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.3-Dichloropropene	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromochloromethane	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromomethane	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorodifluoromethane	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ethylbenzene	M22-My0048424	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass



Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
Iodomethane	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Isopropyl benzene (Cumene)	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
m&p-Xylenes	M22-My0048424	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Methylene Chloride	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
o-Xylene	M22-My0048424	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Styrene	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Tetrachloroethene	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Toluene	M22-My0048424	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
trans-1,2-Dichloroethene	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1,3-Dichloropropene	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichloroethene	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichlorofluoromethane	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Vinyl chloride	M22-My0048424	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Xylenes - Total*	M22-My0048424	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0048430	CP	ug/kg	< 10	< 10	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0048430	CP	ug/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonic acids (PFASs)				Result 1	Result 2	RPD		
Perfluorohexanesulfonic acid (PFHxS)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1	Result 2	RPD		
1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0048430	CP	ug/kg	< 10	< 10	<1	30%	Pass
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0048430	CP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Fluoride (Total)	M22-My0048431	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C6-C9	M22-My0048432	CP	mg/kg	< 20	< 20	<1	30%	Pass
Naphthalene	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
TRH C6-C10	M22-My0048432	CP	mg/kg	< 20	< 20	<1	30%	Pass
Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
Hexachlorobutadiene	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
1,1-Dichloroethane	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1,2,4-Trichlorobenzene	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1,1-Dichloroethene	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1,1,1-Trichloroethane	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1,1,1,2-Tetrachloroethane	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1,1,2-Trichloroethane	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1,1,2,2-Tetrachloroethane	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1,2-Dibromoethane	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1,2-Dichlorobenzene	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1,2-Dichloroethane	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1,2-Dichloropropane	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1,2,3-Trichloropropane	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1,2,4-Trimethylbenzene	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1,3-Dichlorobenzene	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1,3-Dichloropropane	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1,3,5-Trimethylbenzene	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1,4-Dichlorobenzene	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Butanone (MEK)	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Propanone (Acetone)	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chlorotoluene	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Methyl-2-pentanone (MIBK)	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Allyl chloride	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzene	M22-My0048432	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass

Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
Bromobenzene	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromochloromethane	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromodichloromethane	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromoform	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromomethane	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon disulfide	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon Tetrachloride	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chlorobenzene	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroethane	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroform	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloromethane	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.2-Dichloroethene	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.3-Dichloropropene	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromochloromethane	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromomethane	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorodifluoromethane	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ethylbenzene	M22-My0048432	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Iodomethane	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Isopropyl benzene (Cumene)	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
m&p-Xylenes	M22-My0048432	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Methylene Chloride	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
o-Xylene	M22-My0048432	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Styrene	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Tetrachloroethene	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Toluene	M22-My0048432	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
trans-1.2-Dichloroethene	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1.3-Dichloropropene	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichloroethene	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichlorofluoromethane	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Vinyl chloride	M22-My0048432	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Xylenes - Total*	M22-My0048432	CP	mg/kg	< 0.3	< 0.3	<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).
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
Caitlin Breeze	Senior Analyst-Inorganic
Edward Lee	Senior Analyst-Organic
Joseph Edouard	Senior Analyst-Organic
Joseph Edouard	Senior Analyst-PFAS
Joseph Edouard	Senior Analyst-Volatile
Linda Chouman	Senior Analyst-Sample Properties
Mary Makarios	Senior Analyst-Metal
Mary Makarios	Senior Analyst-Sample Properties
Scott Beddoes	Senior Analyst-Inorganic
Vivian Wang	Senior Analyst-Volatile



**Glenn Jackson**  
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please [click here](#).

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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 **890217-W**  
Project name **20220520044241-Eurofin-52**  
Project ID **JC0927**  
Received Date **May 20, 2022**

Client Sample ID			SX_IB_202205 19_08_45_SR_ Rinsate_EUF	SX_IB_202205 19_08_46_SB_ Blank_EUF	SX_IB_202205 19_20_35_SR_ Rinsate_EUF	SX_IB_202205 19_20_36_SB_ Blank_EUF
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M22- My0048419	M22- My0048420	M22- My0048428	M22- My0048429
Date Sampled			May 19, 2022	May 19, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	73	72	67	73
13C5-PFPeA (surr.)	1	%	80	74	63	81
13C5-PFHxA (surr.)	1	%	82	81	76	86
13C4-PFHpA (surr.)	1	%	67	64	58	61
13C8-PFOA (surr.)	1	%	80	58	56	82
13C5-PFNA (surr.)	1	%	64	65	56	59
13C6-PFDA (surr.)	1	%	58	52	56	68
13C2-PFUnDA (surr.)	1	%	56	61	59	51
13C2-PFDoDA (surr.)	1	%	79	69	69	66
13C2-PFTeDA (surr.)	1	%	69	60	57	59
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	78	68	75	79

Client Sample ID			SX_IB_202205 19_08_45_SR_ Rinsate_EUF	SX_IB_202205 19_08_46_SB_ Blank_EUF	SX_IB_202205 19_20_35_SR_ Rinsate_EUF	SX_IB_202205 19_20_36_SB_ Blank_EUF
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			M22- My0048419	M22- My0048420	M22- My0048428	M22- My0048429
Date Sampled			May 19, 2022	May 19, 2022	May 19, 2022	May 19, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl sulfonamido substances</b>						
D3-N-MeFOSA (surr.)	1	%	69	52	57	58
D5-N-EtFOSA (surr.)	1	%	71	46	56	60
D7-N-MeFOSE (surr.)	1	%	77	78	81	76
D9-N-EtFOSE (surr.)	1	%	88	77	75	83
D5-N-EtFOSAA (surr.)	1	%	68	54	45	56
D3-N-MeFOSAA (surr.)	1	%	59	78	54	74
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	72	69	60	65
18O2-PFHxS (surr.)	1	%	53	53	60	67
13C8-PFOS (surr.)	1	%	70	64	70	65
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	61	66	61	64
13C2-6:2 FTSA (surr.)	1	%	54	54	50	39
13C2-8:2 FTSA (surr.)	1	%	52	53	38	51
13C2-10:2 FTSA (surr.)	1	%	52	65	65	60
<b>PFASs Summations</b>						
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

**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	May 20, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonamido substances	Melbourne	May 20, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonic acids (PFSAs)	Melbourne	May 20, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Melbourne	May 20, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
PFASs Summations	Melbourne	May 20, 2022	
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			

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<b>Project Name:</b>	20220520044241-Eurofin-52	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	SX_OB_20220519_08_01_S_S_Triplicate_EUF	May 19, 2022	8:01AM	Soil	M22-My0048417		X	X	X
2	SX_IB_20220519_08_09_SS_Primary_EUF	May 19, 2022	8:09AM	Soil	M22-My0048418		X	X	X
3	SX_IB_20220519_08_45_SR_Rinsate_EUF	May 19, 2022	8:45AM	Water	M22-My0048419			X	
4	SX_IB_20220519_08_46_SB	May 19, 2022	8:46AM	Water	M22-My0048420			X	

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**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
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<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	Blank_EUF								
5	SX_IB_20220519_11_52_SS_Primary_EUF	May 19, 2022	12:03PM	Soil	M22-My0048421		X	X	X
6	SX_OB_20220519_12_03_SS_Primary_EUF	May 19, 2022	12:03PM	Soil	M22-My0048422		X	X	X
7	SX_IB_20220519_15_57_SS_Primary_EUF	May 19, 2022	3:57PM	Soil	M22-My0048423		X	X	X
8	SX_IB_20220519_15_57_SS_Duplicate_EU	May 19, 2022	3:57PM	Soil	M22-My0048424		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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	_Duplicate_EU F								
9	SX_IB_20220519_20_05_SS_Primary_EUF	May 19, 2022	8:05PM	Soil	M22-My0048425		X	X	X
10	SX_IB_20220519_20_05_SS_Duplicate_EUF	May 19, 2022	8:05PM	Soil	M22-My0048426		X	X	X
11	SX_OB_20220519_20_34_SS_Primary_EUF	May 19, 2022	8:34PM	Soil	M22-My0048427		X	X	X
12	SX_IB_202205	May 19, 2022	8:35PM	Water	M22-			X	

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**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	19_20_35_SR_Rinsate_EUF				My0048428				
13	SX_IB_20220519_20_36_SB_Blank_EUF	May 19, 2022	8:36PM	Water	M22-My0048429		X		
14	SX_IB_20220520_00_05_SS_Primary_EUF	May 20, 2022	12:05AM	Soil	M22-My0048430		X	X	X
15	SX_IB_20220520_04_02_SS_Primary_EUF	May 20, 2022	4:02AM	Soil	M22-My0048431		X	X	X
16	SX_IB_20220520_04_11_SS_Primary_EUF	May 20, 2022	4:11AM	Soil	M22-My0048432		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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
17	SX_OB_20220519_08_01_S_S_Triplicate_EUF	May 19, 2022	8:01AM	AUS Leachate - pH 5.0	M22-My0048433	X		X	
18	SX_IB_20220519_08_09_SS_Primary_EUF	May 19, 2022	8:09AM	AUS Leachate - pH 5.0	M22-My0048434	X		X	
19	SX_IB_20220519_11_52_SS_Primary_EUF	May 19, 2022	12:03PM	AUS Leachate - pH 5.0	M22-My0048435	X		X	
20	SX_OB_20220519_12_03_S_S_Primary_EUF	May 19, 2022	12:03PM	AUS Leachate - pH 5.0	M22-My0048436	X		X	

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**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
21	SX_IB_20220519_15_57_SS_Primary_EUF	May 19, 2022	3:57PM	AUS Leachate - pH 5.0	M22-My0048437	X		X	
22	SX_IB_20220519_15_57_SS_Duplicate_EUF	May 19, 2022	3:57PM	AUS Leachate - pH 5.0	M22-My0048438	X		X	
23	SX_IB_20220519_20_05_SS_Primary_EUF	May 19, 2022	8:05PM	AUS Leachate - pH 5.0	M22-My0048439	X		X	
24	SX_IB_20220519_20_05_SS_Duplicate_EUF	May 19, 2022	8:05PM	AUS Leachate - pH 5.0	M22-My0048440	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
25	SX_OB_20220519_20_34_S_S_Primary_EUF	May 19, 2022	8:34PM	AUS Leachate - pH 5.0	M22-My0048441	X		X	
26	SX_IB_20220520_00_05_SS_Primary_EUF	May 20, 2022	12:05AM	AUS Leachate - pH 5.0	M22-My0048442	X		X	
27	SX_IB_20220520_04_02_SS_Primary_EUF	May 20, 2022	4:02AM	AUS Leachate - pH 5.0	M22-My0048443	X		X	
28	SX_IB_20220520_04_11_SS_Primary_EUF	May 20, 2022	4:11AM	AUS Leachate - pH 5.0	M22-My0048444	X		X	
29	SX_OB_20220	May 19, 2022	8:01AM	AUS Leachate	M22-	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	519_08_01_S S_Triplicate_E UF			- Reagent Water	My0048445				
30	SX_IB_202205 19_08_09_SS _Primary_EUF	May 19, 2022	8:09AM	AUS Leachate - Reagent Water	M22- My0048446	X		X	
31	SX_IB_202205 19_11_52_SS _Primary_EUF	May 19, 2022	12:03PM	AUS Leachate - Reagent Water	M22- My0048447	X		X	
32	SX_OB_20220 519_12_03_S S_Primary_EU F	May 19, 2022	12:03PM	AUS Leachate - Reagent Water	M22- My0048448	X		X	
33	SX_IB_202205	May 19, 2022	3:57PM	AUS Leachate	M22-	X		X	

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<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
33	SX_IB_20220519_15_57_SS_Primary_EUF	May 19, 2022	3:57PM	AUS Leachate - Reagent Water	M22-My0048449				
34	SX_IB_20220519_15_57_SS_Duplicate_EUF	May 19, 2022	3:57PM	AUS Leachate - Reagent Water	M22-My0048450	X		X	
35	SX_IB_20220519_20_05_SS_Primary_EUF	May 19, 2022	8:05PM	AUS Leachate - Reagent Water	M22-My0048451	X		X	
36	SX_IB_20220519_20_05_SS_Duplicate_EUF	May 19, 2022	8:05PM	AUS Leachate - Reagent Water	M22-My0048452	X		X	

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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
37	SX_OB_20220519_20_34_S_S_Primary_EUF	May 19, 2022	8:34PM	AUS Leachate - Reagent Water	M22-My0048453	X		X	
38	SX_IB_20220520_00_05_SS_Primary_EUF	May 20, 2022	12:05AM	AUS Leachate - Reagent Water	M22-My0048454	X		X	
39	SX_IB_20220520_04_02_SS_Primary_EUF	May 20, 2022	4:02AM	AUS Leachate - Reagent Water	M22-My0048455	X		X	
40	SX_IB_20220520_04_11_SS_Primary_EUF	May 20, 2022	4:11AM	AUS Leachate - Reagent Water	M22-My0048456	X		X	
<b>Test Counts</b>						24	12	40	12

## Internal Quality Control Review and Glossary

### General

- 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.
- All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
- Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
- 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

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

### Terms

<b>APHA</b>	American Public Health Association
<b>COC</b>	Chain of Custody
<b>CP</b>	Client Parent - QC was performed on samples pertaining to this report
<b>CRM</b>	Certified Reference Material (ISO17034) - reported as percent recovery.
<b>Dry</b>	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
<b>Duplicate</b>	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
<b>LOR</b>	Limit of Reporting.
<b>LCS</b>	Laboratory Control Sample - reported as percent recovery.
<b>Method Blank</b>	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.
<b>NCP</b>	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.
<b>RPD</b>	Relative Percent Difference between two Duplicate pieces of analysis.
<b>SPIKE</b>	Addition of the analyte to the sample and reported as percentage recovery.
<b>SRA</b>	Sample Receipt Advice
<b>Surr - Surrogate</b>	The addition of a like compound to the analyte target and reported as percentage recovery.
<b>TBTO</b>	Tributyltin oxide ( <i>bis</i> -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.
<b>TCLP</b>	Toxicity Characteristic Leaching Procedure
<b>TEQ</b>	Toxic Equivalency Quotient or Total Equivalence
<b>QSM</b>	US Department of Defense Quality Systems Manual Version 5.4
<b>US EPA</b>	United States Environmental Protection Agency
<b>WA DWER</b>	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

- 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.
- 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.
- 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.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- 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
<b>Method Blank</b>						
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
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 (PFTTrDA)	ug/L	< 0.01		0.01	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/L	< 0.01		0.01	Pass	
<b>Method Blank</b>						
<b>Perfluoroalkyl sulfonamido substances</b>						
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	
<b>Method Blank</b>						
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
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	
<b>Method Blank</b>						
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
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	
<b>LCS - % Recovery</b>						
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA)	%	110		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	128		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	135		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	129		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	137		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	98		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	98		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	113		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	112		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	115		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	95		50-150	Pass	



Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code		
<b>LCS - % Recovery</b>									
<b>Perfluoroalkyl sulfonamido substances</b>									
Perfluorooctane sulfonamide (FOSA)	%	90			50-150	Pass			
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	124			50-150	Pass			
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	103			50-150	Pass			
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	98			50-150	Pass			
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	97			50-150	Pass			
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	90			50-150	Pass			
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	102			50-150	Pass			
<b>LCS - % Recovery</b>									
<b>Perfluoroalkyl sulfonic acids (PFSA's)</b>									
Perfluorobutanesulfonic acid (PFBS)	%	84			50-150	Pass			
Perfluorononanesulfonic acid (PFNS)	%	105			50-150	Pass			
Perfluoropropanesulfonic acid (PFPrS)	%	108			50-150	Pass			
Perfluoropentanesulfonic acid (PFPeS)	%	124			50-150	Pass			
Perfluorohexanesulfonic acid (PFHxS)	%	106			50-150	Pass			
Perfluoroheptanesulfonic acid (PFHpS)	%	84			50-150	Pass			
Perfluorooctanesulfonic acid (PFOS)	%	81			50-150	Pass			
Perfluorodecanesulfonic acid (PFDS)	%	87			50-150	Pass			
<b>LCS - % Recovery</b>									
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)</b>									
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	119			50-150	Pass			
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	122			50-150	Pass			
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	102			50-150	Pass			
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	85			50-150	Pass			
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
<b>Duplicate</b>									
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>				Result 1	Result 2	RPD			
Perfluorooctanoic acid (PFOA)	M22-My0049203	NCP	ug/L	0.21	0.18	17	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).

**Authorised by:**

Catherine Wilson	Analytical Services Manager
Joseph Edouard	Senior Analyst-PFAS



**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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## #AU\_CAU001\_EnviroSampleVic

**From:** Dayle Barnett <Dayle.Barnett@eprisk.com.au>  
**Sent:** Saturday, 21 May 2022 9:32 AM  
**To:** Callum McEwan; Michael Cassidy  
**Cc:** #AU\_CAU001\_EnviroSampleVic; David Lawson; William O'Haire; Darren Edwards  
**Subject:** WGTP TST COCs 21/05/2022  
**Attachments:** 20220521\_EUF.xlsx

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

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Hi,

Please find attached COCs for 21/05/2022.

Please note that due to technical issues we have included temporary reference numbers, actual reference numbers will be confirmed Monday.

Any issues please let me know.

Kind regards,

**Dayle Barnett**

Environmental Scientist

M 0430 181 137 | E [dayle.barnett@eprisk.com.au](mailto:dayle.barnett@eprisk.com.au)

View my profile on 

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# CHAIN OF CUSTODY RECORD

Environ | Environment Testing | ABN 50 005 055 921

Sydney Laboratory  
Unit 17 367 18 Mars Road Lane Cove West NSW 2056  
02 9500 8400 EnviroSampleNSW@eurofins.com

Brisbane Laboratory  
Unit 1 21 Shelwood Place Murarie 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  
5 Malvern Road Dandenong South VIC 3175  
03 8564 5200 EnviroSampleVIC@eurofins.com

Company		AGON Environmental - Tunnel Spoil Testing		Project No	JC0927		Project Manager	Craig Trimbur		Sampler(s)	ES - EP Risk TG - Agon					
Address		Unit H76, 63-85 Turner St, Port Melbourne VIC 3207		Project Name	WGTP-Tunnel Ref: 20220521151909-Eurofin-6		EDD Format	Esdat		Handled over by						
Contact Name		Craig Trimbur David Lawson		Analysis <small>When needed, an invoice must be used to attach to the packing SUITES.COM must be used to attach to the packing</small>	Spoil Sample Preparation		Suites WGTP-RH-TREH-PAH-Phenols/OPH/PCB/VOC/Viol/Chloride/ Metals (As, Cd, Cr, Cu, Ni, Pb, Hg, Ag, Sn, Mo, Sr, Zn) /C6-H/CV/ Fluoride /PH		PFAS Extended Suite - 0.1 - 5µg/g		ASLP PH 5 - PFAS 0/1-0.05µg/l		ASLP Reagent - PFAS 0/1-0.05µg/l			
Phone No		+61 400 826 907 (Craig) +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.		Please provide eSRN along with oter sample receipt documentation.		Purchase Order		Quote ID No		Agon WGTP TST	
No	Client Sample ID	Sampled Date/Time <small>dd/mm/yy hh:mm</small>	Matrix <small>Solid (S) Water (W)</small>	Containers <small>Change container type &amp; size if necessary.</small>										Required Turnaround Time (TAT) <small>Default will be 5 days if not ticked</small>		
				500mL Plastic	250mL Plastic	125mL Plastic	20mL Amber Glass	40mL VOA vial	50mL PFAS Bottle J-Fit (Glass or HDPE)	Other (Advocate & Refer WA Guidelines)	*Surcharge will apply <input type="checkbox"/> Overnight (reporting by 9am) <input type="checkbox"/> Same day <input type="checkbox"/> 1 day <input type="checkbox"/> <input type="checkbox"/> 2 days <input type="checkbox"/> 3 days <input type="checkbox"/> <input checked="" type="checkbox"/> 5 days (Standard) <input type="checkbox"/> Other( )		Sample Comments / Dangerous Goods Hazard Warning			
1	SX_IB_20220520_08_27_SS_Primary_EUF	20/05/2022 08:27	S	X	X	X	X	X								1
2	SX_OB_20220520_08_35_SS_Triplicate_EUF	20/05/2022 08:35	S	X	X	X	X	X								1
3	SX_IB_20220520_12_17_SS_Primary_EUF	20/05/2022 12:17	S	X	X	X	X	X								1
4	SX_OB_20220520_12_31_SS_Primary_EUF	20/05/2022 12:31	S	X	X	X	X	X								1
5	SX_OB_20220520_16_31_SS_Primary_EUF	20/05/2022 16:31:00 PM	S	X	X	X	X	X								1
6	SX_OB_20220520_16_33_SS_Duplicate_EUF	20/05/2022 16:33:00 PM	S	X	X	X	X	X								1
7	SX_OB_20220520_20_02_SS_Primary_EUF	20/05/2022 20:02:00 PM	S	X	X	X	X	X								1
8	SX_OB_20220521_00_03_SS_Primary_EUF	21/05/2022 00:03:00 AM	S	X	X	X	X	X								1
9	SX_OB_20220521_04_01_SS_Primary_EUF	21/05/2022 04:01:00 AM	S	X	X	X	X	X								1
10																1
11																1
12																1
13																1
14																1
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25																
26																
27																
Total Counts				9	9	9	9	9								15
Method of Shipment		<input checked="" type="checkbox"/> Courier (# ) <input type="checkbox"/> Hand Delivered <input type="checkbox"/> Postal <th>Name</th> <td colspan="2"></td> <th>Signature</th> <td colspan="2"></td> <th>Date</th> <td colspan="2"></td> <th>Time</th> <td colspan="2"></td>		Name			Signature			Date			Time			
Laboratory Use Only		Received By	SYD   BNE   MEL   PER   ADL   NTL   DRW		Signature			Date			Time			Temperature		
Laboratory Use Only		Received By	SYD   BNE   MEL   PER   ADL   NTL   DRW		Signature			Date			Time			Report No		

## Callum McEwan

---

**From:** Dayle Barnett <Dayle.Barnett@eprisk.com.au>  
**Sent:** Saturday, 21 May 2022 3:29 PM  
**To:** Callum McEwan; Michael Cassidy  
**Cc:** #AU\_CAU001\_EnviroSampleVic; David Lawson; William OHaire  
**Subject:** RE: WGTP TST COCs 21/05/2022  
**Attachments:** 20220521151909-Eurofin-6-Solid.xlsx

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Hi Callum,

Just following up with the confirmed reference number for these samples and updated COC – please see attached.

Any issues please let me know.

Regards,

### Dayle Barnett

Environmental Scientist

M 0430 181 137 | E [dayle.barnett@eprisk.com.au](mailto:dayle.barnett@eprisk.com.au)



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---

**From:** Dayle Barnett

**Sent:** Saturday, 21 May 2022 9:32 AM

**To:** Callum McEwan <CallumMcEwan@eurofins.com>; Michael Cassidy <MichaelCassidy@eurofins.com>  
**Cc:** #AU\_CAU001\_EnviroSampleVic <EnviroSampleVic@eurofins.com>; David Lawson <David.Lawson@agonenviro.com.au>; William OHaire <William.OHaire@agonenviro.com.au>; Darren Edwards <Darren.Edwards@agonenviro.com.au>  
**Subject:** WGTP TST COCs 21/05/2022

Hi,

Please find attached COCs for 21/05/2022.

Please note that due to technical issues we have included temporary reference numbers, actual reference numbers will be confirmed Monday.

Any issues please let me know.

Kind regards,

**Dayle Barnett**

Environmental Scientist

M 0430 181 137 | E [dayle.barnett@eprisk.com.au](mailto:dayle.barnett@eprisk.com.au)



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# Environment Testing

## Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

**Melbourne**  
6 Monterey Road  
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NATA # 1261 Site # 1254

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

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

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

## Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

**Perth**  
46-48 Banksia Road  
Welsphool WA 6106  
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  
Phone : +64 9 526 45 51  
IANZ # 1327

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

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

**Company Name:** Agon Environmental Pty Ltd - VIC  
**Address:** 3/224 Glen Osmond Road  
Fullarton  
SA 5063  
  
**Project Name:** 20220521151909-Eurofin-6  
**Project ID:** JC0927

**Order No.:**  
**Report #:** 890571  
**Phone:** 08 8338 1009  
**Fax:**

**Received:** May 21, 2022 10:20 AM  
**Due:** May 30, 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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	SX_IB_20220520_08_27_SS_Primary_EUF	May 20, 2022	8:27AM	Soil	M22-My0051752		X	X	X
2	SX_OB_20220520_08_35_SS_Triplicate_EUF	May 20, 2022	8:35AM	Soil	M22-My0051753		X	X	X
3	SX_IB_20220520_12_17_SS_Primary_EUF	May 20, 2022	12:17PM	Soil	M22-My0051754		X	X	X
4	SX_OB_20220520_12_31_SS	May 20, 2022	12:31PM	Soil	M22-My0051755		X	X	X





Environment Testing

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

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NATA # 1261 Site # 1254

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

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

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

Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

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

Eurofins Environment Testing NZ Limited

NZBN: 9429046024954

**Auckland**  
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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

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

**Company Name:** Agon Environmental Pty Ltd - VIC  
**Address:** 3/224 Glen Osmond Road  
Fullarton  
SA 5063  
  
**Project Name:** 20220521151909-Eurofin-6  
**Project ID:** JC0927

**Order No.:**  
**Report #:** 890571  
**Phone:** 08 8338 1009  
**Fax:**

**Received:** May 21, 2022 10:20 AM  
**Due:** May 30, 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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	S_Primary_EU F								
5	SX_OB_20220 520_16_31_S S_Primary_EU F	May 20, 2022	4:31PM	Soil	M22- My0051756		X	X	X
6	SX_OB_20220 520_16_33_S S_Duplicate_E UF	May 20, 2022	4:33PM	Soil	M22- My0051757		X	X	X
7	SX_OB_20220 520_20_02_S S_Primary_EU F	May 20, 2022	8:02PM	Soil	M22- My0051758		X	X	X

**Company Name:** Agon Environmental Pty Ltd - VIC  
**Address:** 3/224 Glen Osmond Road  
Fullarton  
SA 5063  
  
**Project Name:** 20220521151909-Eurofin-6  
**Project ID:** JC0927

**Order No.:**  
**Report #:** 890571  
**Phone:** 08 8338 1009  
**Fax:**

**Received:** May 21, 2022 10:20 AM  
**Due:** May 30, 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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
8	SX_OB_20220521_00_03_S_S_Primary_EU_F	May 21, 2022	12:03AM	Soil	M22-My0051759		X	X	X
9	SX_OB_20220521_04_01_S_S_Primary_EU_F	May 21, 2022	4:01AM	Soil	M22-My0051760		X	X	X
10	SX_IB_20220520_08_27_SS_Primary_EUF	May 20, 2022	8:27AM	AUS Leachate - pH 5.0	M22-My0051761	X		X	
11	SX_OB_20220520_08_35_S_S_Triplicate_E	May 20, 2022	8:35AM	AUS Leachate - pH 5.0	M22-My0051762	X		X	

<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	May 21, 2022 10:20 AM
<b>Address:</b>	3/224 Glen Osmond Road Fullarton SA 5063	<b>Report #:</b>	890571	<b>Due:</b>	May 30, 2022
<b>Project Name:</b>	20220521151909-Eurofin-6	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	UF								
12	SX_IB_20220520_12_17_SS_Primary_EUF	May 20, 2022	12:17PM	AUS Leachate - pH 5.0	M22-My0051763	X		X	
13	SX_OB_20220520_12_31_SS_Primary_EUF	May 20, 2022	12:31PM	AUS Leachate - pH 5.0	M22-My0051764	X		X	
14	SX_OB_20220520_16_31_SS_Primary_EUF	May 20, 2022	4:31PM	AUS Leachate - pH 5.0	M22-My0051765	X		X	
15	SX_OB_20220520_16_33_SS	May 20, 2022	4:33PM	AUS Leachate - pH 5.0	M22-My0051766	X		X	

**Company Name:** Agon Environmental Pty Ltd - VIC  
**Address:** 3/224 Glen Osmond Road  
Fullarton  
SA 5063  
  
**Project Name:** 20220521151909-Eurofin-6  
**Project ID:** JC0927

**Order No.:**  
**Report #:** 890571  
**Phone:** 08 8338 1009  
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**Received:** May 21, 2022 10:20 AM  
**Due:** May 30, 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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	520_16_33_S S_Duplicate_E UF			- pH 5.0	My0051766				
16	SX_OB_20220 520_20_02_S S_Primary_EU F	May 20, 2022	8:02PM	AUS Leachate - pH 5.0	M22- My0051767	X		X	
17	SX_OB_20220 521_00_03_S S_Primary_EU F	May 21, 2022	12:03AM	AUS Leachate - pH 5.0	M22- My0051768	X		X	
18	SX_OB_20220 521_04_01_S S_Primary_EU	May 21, 2022	4:01AM	AUS Leachate - pH 5.0	M22- My0051769	X		X	

**Company Name:** Agon Environmental Pty Ltd - VIC  
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**Project Name:** 20220521151909-Eurofin-6  
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**Order No.:**  
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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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	F								
19	SX_IB_20220520_08_27_SS_Primary_EUF	May 20, 2022	8:27AM	AUS Leachate - Reagent Water	M22-My0051770	X		X	
20	SX_OB_20220520_08_35_S_S_Triplicate_EUF	May 20, 2022	8:35AM	AUS Leachate - Reagent Water	M22-My0051771	X		X	
21	SX_IB_20220520_12_17_SS_Primary_EUF	May 20, 2022	12:17PM	AUS Leachate - Reagent Water	M22-My0051772	X		X	
22	SX_OB_20220520_12_31_S_S_Primary_EU	May 20, 2022	12:31PM	AUS Leachate - Reagent Water	M22-My0051773	X		X	

**Company Name:** Agon Environmental Pty Ltd - VIC  
**Address:** 3/224 Glen Osmond Road  
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SA 5063  
**Project Name:** 20220521151909-Eurofin-6  
**Project ID:** JC0927

**Order No.:**  
**Report #:** 890571  
**Phone:** 08 8338 1009  
**Fax:**

**Received:** May 21, 2022 10:20 AM  
**Due:** May 30, 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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	S_Primary_EU F			Water					
23	SX_OB_20220 520_16_31_S S_Primary_EU F	May 20, 2022	4:31PM	AUS Leachate - Reagent Water	M22- My0051774	X		X	
24	SX_OB_20220 520_16_33_S S_Duplicate_E UF	May 20, 2022	4:33PM	AUS Leachate - Reagent Water	M22- My0051775	X		X	
25	SX_OB_20220 520_20_02_S S_Primary_EU F	May 20, 2022	8:02PM	AUS Leachate - Reagent Water	M22- My0051776	X		X	

**Company Name:** Agon Environmental Pty Ltd - VIC  
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SA 5063  
  
**Project Name:** 20220521151909-Eurofin-6  
**Project ID:** JC0927

**Order No.:**  
**Report #:** 890571  
**Phone:** 08 8338 1009  
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**Received:** May 21, 2022 10:20 AM  
**Due:** May 30, 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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
26	SX_OB_20220521_00_03_S_S_Primary_EU_F	May 21, 2022	12:03AM	AUS Leachate - Reagent Water	M22-My0051777	X		X	
27	SX_OB_20220521_04_01_S_S_Primary_EU_F	May 21, 2022	4:01AM	AUS Leachate - Reagent Water	M22-My0051778	X		X	
<b>Test Counts</b>						18	9	27	9

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 **890571-L**  
Project name **20220521151909-Eurofin-6**  
Project ID **JC0927**  
Received Date **May 21, 2022**

Client Sample ID			SX_IB_202205 20_08_27_SS_ Primary_EUF	SX_OB_20220 520_08_35_SS Triplicate_EU F	SX_IB_202205 20_12_17_SS_ Primary_EUF	SX_OB_20220 520_12_31_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- My0051761	M22- My0051762	M22- My0051763	M22- My0051764
Date Sampled			May 20, 2022	May 20, 2022	May 20, 2022	May 20, 2022
Test/Reference	LOR	Unit				
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		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
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	75	69	91	55
13C5-PFPeA (surr.)	1	%	75	80	92	63
13C5-PFHxA (surr.)	1	%	100	98	131	75
13C4-PFHpA (surr.)	1	%	78	71	118	59
13C8-PFOA (surr.)	1	%	87	76	121	54
13C5-PFNA (surr.)	1	%	85	81	122	63
13C6-PFDA (surr.)	1	%	89	63	131	68
13C2-PFUnDA (surr.)	1	%	99	62	144	83
13C2-PFDoDA (surr.)	1	%	78	44	126	61
13C2-PFTTeDA (surr.)	1	%	80	53	151	70



Client Sample ID			SX_IB_202205 20_08_27_SS_ Primary_EUF	SX_OB_20220 520_08_35_SS _TriPLICATE_EU F	SX_IB_202205 20_12_17_SS_ Primary_EUF	SX_OB_20220 520_12_31_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- My0051761	M22- My0051762	M22- My0051763	M22- My0051764
Date Sampled			May 20, 2022	May 20, 2022	May 20, 2022	May 20, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	70	42	106	56
D3-N-MeFOSA (surr.)	1	%	70	79	125	79
D5-N-EtFOSA (surr.)	1	%	68	71	130	90
D7-N-MeFOSE (surr.)	1	%	99	60	158	90
D9-N-EtFOSE (surr.)	1	%	88	54	161	79
D5-N-EtFOSAA (surr.)	1	%	80	60	141	69
D3-N-MeFOSAA (surr.)	1	%	118	66	147	68
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	95	90	133	67
18O2-PFHxS (surr.)	1	%	99	68	131	52
13C8-PFOS (surr.)	1	%	82	65	115	60
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	98	63	156	50
13C2-6:2 FTSA (surr.)	1	%	94	74	158	53
13C2-8:2 FTSA (surr.)	1	%	77	56	94	36
13C2-10:2 FTSA (surr.)	1	%	80	36	98	48
<b>PFASs Summations</b>						
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_20220 520_16_31_SS _Primary_EUF	SX_OB_20220 520_16_33_SS _Duplicate_EU F	SX_OB_20220 520_20_02_SS _Primary_EUF	SX_OB_20220 521_00_03_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- My0051765	M22- My0051766	M22- My0051767	M22- My0051768
Date Sampled			May 20, 2022	May 20, 2022	May 20, 2022	May 21, 2022
Test/Reference	LOR	Unit				
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		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	5.1	5.1	5.1
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	82	98	94	83
13C5-PFPeA (surr.)	1	%	84	85	96	87
13C5-PFHxA (surr.)	1	%	113	140	125	128
13C4-PFHpA (surr.)	1	%	82	102	102	87
13C8-PFOA (surr.)	1	%	94	127	113	97
13C5-PFNA (surr.)	1	%	92	116	114	94
13C6-PFDA (surr.)	1	%	93	140	144	89
13C2-PFUnDA (surr.)	1	%	118	161	143	82
13C2-PFDoDA (surr.)	1	%	102	119	92	64
13C2-PFTTeDA (surr.)	1	%	96	141	141	92
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	80	96	107	66
D3-N-MeFOSA (surr.)	1	%	65	105	90	88
D5-N-EtFOSA (surr.)	1	%	44	96	96	99
D7-N-MeFOSE (surr.)	1	%	94	154	127	89
D9-N-EtFOSE (surr.)	1	%	97	151	143	98
D5-N-EtFOSAA (surr.)	1	%	109	123	122	71
D3-N-MeFOSAA (surr.)	1	%	117	135	106	97

Client Sample ID			SX_OB_20220 520_16_31_SS _Primary_EUF	SX_OB_20220 520_16_33_SS _Duplicate_EU F	SX_OB_20220 520_20_02_SS _Primary_EUF	SX_OB_20220 521_00_03_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- My0051765	M22- My0051766	M22- My0051767	M22- My0051768
Date Sampled			May 20, 2022	May 20, 2022	May 20, 2022	May 21, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	101	138	126	107
18O2-PFHxS (surr.)	1	%	97	123	89	95
13C8-PFOS (surr.)	1	%	92	127	119	82
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	86	111	68	82
13C2-6:2 FTSA (surr.)	1	%	80	102	91	70
13C2-8:2 FTSA (surr.)	1	%	85	80	63	48
13C2-10:2 FTSA (surr.)	1	%	71	89	102	42
<b>PFASs Summations</b>						
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_20220 521_04_01_SS _Primary_EUF	SX_IB_202205 20_08_27_SS _Primary_EUF	SX_OB_20220 520_08_35_SS _Triplicate_EU F	SX_IB_202205 20_12_17_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- My0051769	M22- My0051770	M22- My0051771	M22- My0051772
Date Sampled			May 21, 2022	May 20, 2022	May 20, 2022	May 20, 2022
Test/Reference	LOR	Unit				
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		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	5.9	5.9	5.9
pH (off)	0.1	pH Units	5.2	8.4	8.3	8.4

Client Sample ID			SX_OB_20220 521_04_01_SS _Primary_EUF	SX_IB_202205 20_08_27_SS _Primary_EUF	SX_OB_20220 520_08_35_SS _Triplicate_EU F	SX_IB_202205 20_12_17_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- My0051769	M22- My0051770	M22- My0051771	M22- My0051772
Date Sampled			May 21, 2022	May 20, 2022	May 20, 2022	May 20, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	82	75	74	78
13C5-PFPeA (surr.)	1	%	78	63	78	74
13C5-PFHxA (surr.)	1	%	112	109	74	125
13C4-PFHpA (surr.)	1	%	91	95	67	115
13C8-PFOA (surr.)	1	%	98	88	70	131
13C5-PFNA (surr.)	1	%	103	94	81	128
13C6-PFDA (surr.)	1	%	115	46	125	119
13C2-PFUnDA (surr.)	1	%	124	100	108	116
13C2-PFDoDA (surr.)	1	%	78	80	123	100
13C2-PFTeDA (surr.)	1	%	108	87	137	108
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	76	104	103	117
D3-N-MeFOSA (surr.)	1	%	102	97	67	126
D5-N-EtFOSA (surr.)	1	%	105	98	75	111
D7-N-MeFOSE (surr.)	1	%	105	86	85	93
D9-N-EtFOSE (surr.)	1	%	112	81	110	102
D5-N-EtFOSAA (surr.)	1	%	96	110	106	146
D3-N-MeFOSAA (surr.)	1	%	77	50	82	117
<b>Perfluoroalkyl sulfonic acids (PFSA)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

<b>Client Sample ID</b>			<b>SX_OB_20220</b> <b>521_04_01_SS</b> <b>_Primary_EUF</b>	<b>SX_IB_202205</b> <b>20_08_27_SS</b> <b>_Primary_EUF</b>	<b>SX_OB_20220</b> <b>520_08_35_SS</b> <b>_Triplicate_EU</b> <b>F</b>	<b>SX_IB_202205</b> <b>20_12_17_SS</b> <b>_Primary_EUF</b>
<b>Sample Matrix</b>			<b>AUS Leachate</b> <b>- pH 5.0</b>	<b>AUS Leachate</b> <b>- Reagent</b> <b>Water</b>	<b>AUS Leachate</b> <b>- Reagent</b> <b>Water</b>	<b>AUS Leachate</b> <b>- Reagent</b> <b>Water</b>
<b>Eurofins Sample No.</b>			<b>M22-</b> <b>My0051769</b>	<b>M22-</b> <b>My0051770</b>	<b>M22-</b> <b>My0051771</b>	<b>M22-</b> <b>My0051772</b>
<b>Date Sampled</b>			<b>May 21, 2022</b>	<b>May 20, 2022</b>	<b>May 20, 2022</b>	<b>May 20, 2022</b>
<b>Test/Reference</b>	LOR	Unit				
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	105	119	83	142
18O2-PFHxS (surr.)	1	%	107	79	74	118
13C8-PFOS (surr.)	1	%	88	98	89	125
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	74	109	54	151
13C2-6:2 FTSA (surr.)	1	%	58	67	51	167
13C2-8:2 FTSA (surr.)	1	%	64	76	28	84
13C2-10:2 FTSA (surr.)	1	%	66	91	130	134
<b>PFASs Summations</b>						
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

<b>Client Sample ID</b>			<b>SX_OB_20220</b> <b>520_12_31_SS</b> <b>_Primary_EUF</b>	<b>SX_OB_20220</b> <b>520_16_31_SS</b> <b>_Primary_EUF</b>	<b>SX_OB_20220</b> <b>520_16_33_SS</b> <b>_Duplicate_EU</b> <b>F</b>	<b>SX_OB_20220</b> <b>520_20_02_SS</b> <b>_Primary_EUF</b>
<b>Sample Matrix</b>			<b>AUS Leachate</b> <b>- Reagent</b> <b>Water</b>	<b>AUS Leachate</b> <b>- Reagent</b> <b>Water</b>	<b>AUS Leachate</b> <b>- Reagent</b> <b>Water</b>	<b>AUS Leachate</b> <b>- Reagent</b> <b>Water</b>
<b>Eurofins Sample No.</b>			<b>M22-</b> <b>My0051773</b>	<b>M22-</b> <b>My0051774</b>	<b>M22-</b> <b>My0051775</b>	<b>M22-</b> <b>My0051776</b>
<b>Date Sampled</b>			<b>May 20, 2022</b>	<b>May 20, 2022</b>	<b>May 20, 2022</b>	<b>May 20, 2022</b>
<b>Test/Reference</b>	LOR	Unit				
<b>AUS Leaching Procedure</b>						
Leachate Fluid <sup>C01</sup>		comment	4.0	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	5.9	5.9	5.9	5.9
pH (off)	0.1	pH Units	8.3	8.2	8.2	8.3
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			SX_OB_20220 520_12_31_SS _Primary_EUF	SX_OB_20220 520_16_31_SS _Primary_EUF	SX_OB_20220 520_16_33_SS _Duplicate_EU F	SX_OB_20220 520_20_02_SS _Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- My0051773	M22- My0051774	M22- My0051775	M22- My0051776
Date Sampled			May 20, 2022	May 20, 2022	May 20, 2022	May 20, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTeDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	88	73	93	73
13C5-PFPeA (surr.)	1	%	81	74	98	79
13C5-PFHxA (surr.)	1	%	90	105	77	99
13C4-PFHpA (surr.)	1	%	82	75	71	77
13C8-PFOA (surr.)	1	%	91	78	79	78
13C5-PFNA (surr.)	1	%	102	95	80	90
13C6-PFDA (surr.)	1	%	129	78	83	54
13C2-PFUnDA (surr.)	1	%	104	78	84	86
13C2-PFDoDA (surr.)	1	%	135	81	81	80
13C2-PFTeDA (surr.)	1	%	120	74	73	119
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	113	99	85	108
D3-N-MeFOSA (surr.)	1	%	104	64	93	99
D5-N-EtFOSA (surr.)	1	%	118	64	117	96
D7-N-MeFOSE (surr.)	1	%	127	96	99	117
D9-N-EtFOSE (surr.)	1	%	138	92	116	94
D5-N-EtFOSAA (surr.)	1	%	109	137	117	57
D3-N-MeFOSAA (surr.)	1	%	97	117	120	65
<b>Perfluoroalkyl sulfonic acids (PFSA)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	92	114	103	108
18O2-PFHxS (surr.)	1	%	93	95	70	37
13C8-PFOS (surr.)	1	%	112	104	89	92



<b>Client Sample ID</b>			<b>SX_OB_20220 520_12_31_SS _Primary_EUF</b>	<b>SX_OB_20220 520_16_31_SS _Primary_EUF</b>	<b>SX_OB_20220 520_16_33_SS _Duplicate_EU F</b>	<b>SX_OB_20220 520_20_02_SS _Primary_EUF</b>
<b>Sample Matrix</b>			<b>AUS Leachate - Reagent Water</b>	<b>AUS Leachate - Reagent Water</b>	<b>AUS Leachate - Reagent Water</b>	<b>AUS Leachate - Reagent Water</b>
<b>Eurofins Sample No.</b>			<b>M22- My0051773</b>	<b>M22- My0051774</b>	<b>M22- My0051775</b>	<b>M22- My0051776</b>
<b>Date Sampled</b>			<b>May 20, 2022</b>	<b>May 20, 2022</b>	<b>May 20, 2022</b>	<b>May 20, 2022</b>
Test/Reference	LOR	Unit				
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	80	79	98	53
13C2-6:2 FTSA (surr.)	1	%	57	69	90	41
13C2-8:2 FTSA (surr.)	1	%	71	87	99	72
13C2-10:2 FTSA (surr.)	1	%	120	88	132	61
<b>PFASs Summations</b>						
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

<b>Client Sample ID</b>			<b>SX_OB_20220 521_00_03_SS _Primary_EUF</b>	<b>SX_OB_20220 521_04_01_SS _Primary_EUF</b>
<b>Sample Matrix</b>			<b>AUS Leachate - Reagent Water</b>	<b>AUS Leachate - Reagent Water</b>
<b>Eurofins Sample No.</b>			<b>M22- My0051777</b>	<b>M22- My0051778</b>
<b>Date Sampled</b>			<b>May 21, 2022</b>	<b>May 21, 2022</b>
Test/Reference	LOR	Unit		
<b>AUS Leaching Procedure</b>				
Leachate Fluid <sup>C01</sup>		comment	4.0	4.0
pH (initial)	0.1	pH Units	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	5.9	5.9
pH (off)	0.1	pH Units	8.5	8.7
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>				
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTTrDA) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	75	95

Client Sample ID			SX_OB_20220 521_00_03_SS _Primary_EUF	SX_OB_20220 521_04_01_SS _Primary_EUF
Sample Matrix			AUS Leachate - Reagent Water	AUS Leachate - Reagent Water
Eurofins Sample No.			M22- My0051777	M22- My0051778
Date Sampled			May 21, 2022	May 21, 2022
Test/Reference	LOR	Unit		
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>				
13C5-PFPeA (surr.)	1	%	72	101
13C5-PFHxA (surr.)	1	%	105	102
13C4-PFHpA (surr.)	1	%	66	108
13C8-PFOA (surr.)	1	%	83	103
13C5-PFNA (surr.)	1	%	78	107
13C6-PFDA (surr.)	1	%	101	100
13C2-PFUnDA (surr.)	1	%	98	91
13C2-PFDoDA (surr.)	1	%	83	99
13C2-PFTeDA (surr.)	1	%	88	72
<b>Perfluoroalkyl sulfonamido substances</b>				
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	88	111
D3-N-MeFOSA (surr.)	1	%	41	70
D5-N-EtFOSA (surr.)	1	%	40	86
D7-N-MeFOSE (surr.)	1	%	91	87
D9-N-EtFOSE (surr.)	1	%	90	100
D5-N-EtFOSAA (surr.)	1	%	122	98
D3-N-MeFOSAA (surr.)	1	%	114	103
<b>Perfluoroalkyl sulfonic acids (PFSA)</b>				
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	0.01	ug/L	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	100	110
18O2-PFHxS (surr.)	1	%	88	106
13C8-PFOS (surr.)	1	%	77	110



<b>Client Sample ID</b>			<b>SX_OB_20220 521_00_03_SS _Primary_EUF</b>	<b>SX_OB_20220 521_04_01_SS _Primary_EUF</b>
<b>Sample Matrix</b>			<b>AUS Leachate - Reagent Water</b>	<b>AUS Leachate - Reagent Water</b>
<b>Eurofins Sample No.</b>			<b>M22- My0051777</b>	<b>M22- My0051778</b>
<b>Date Sampled</b>			<b>May 21, 2022</b>	<b>May 21, 2022</b>
Test/Reference	LOR	Unit		
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>				
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	0.05	ug/L	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	0.01	ug/L	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	67	81
13C2-6:2 FTSA (surr.)	1	%	95	56
13C2-8:2 FTSA (surr.)	1	%	54	79
13C2-10:2 FTSA (surr.)	1	%	64	89
<b>PFASs Summations</b>				
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
AUS Leaching Procedure			
pH (initial) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	May 23, 2022	0 Days
pH (Leachate fluid) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	May 23, 2022	0 Days
pH (off) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	May 23, 2022	0 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 23, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 23, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFASs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 23, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 23, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 21, 2022	

<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	May 21, 2022 10:20 AM
<b>Address:</b>	3/224 Glen Osmond Road Fullarton SA 5063	<b>Report #:</b>	890571	<b>Due:</b>	May 30, 2022
<b>Project Name:</b>	20220521151909-Eurofin-6	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	SX_IB_20220520_08_27_SS_Primary_EUF	May 20, 2022	8:27AM	Soil	M22-My0051752		X	X	X
2	SX_OB_20220520_08_35_SS_Triplicate_EUF	May 20, 2022	8:35AM	Soil	M22-My0051753		X	X	X
3	SX_IB_20220520_12_17_SS_Primary_EUF	May 20, 2022	12:17PM	Soil	M22-My0051754		X	X	X
4	SX_OB_20220520_12_31_SS	May 20, 2022	12:31PM	Soil	M22-My0051755		X	X	X

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<b>Project Name:</b>	20220521151909-Eurofin-6	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	S_Primary_EU F								
5	SX_OB_20220 520_16_31_S S_Primary_EU F	May 20, 2022	4:31PM	Soil	M22- My0051756		X	X	X
6	SX_OB_20220 520_16_33_S S_Duplicate_E UF	May 20, 2022	4:33PM	Soil	M22- My0051757		X	X	X
7	SX_OB_20220 520_20_02_S S_Primary_EU F	May 20, 2022	8:02PM	Soil	M22- My0051758		X	X	X

**Company Name:** Agon Environmental Pty Ltd - VIC  
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Fullarton  
SA 5063  
**Project Name:** 20220521151909-Eurofin-6  
**Project ID:** JC0927

**Order No.:**  
**Report #:** 890571  
**Phone:** 08 8338 1009  
**Fax:**

**Received:** May 21, 2022 10:20 AM  
**Due:** May 30, 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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
8	SX_OB_20220521_00_03_S_S_Primary_EU_F	May 21, 2022	12:03AM	Soil	M22-My0051759		X	X	X
9	SX_OB_20220521_04_01_S_S_Primary_EU_F	May 21, 2022	4:01AM	Soil	M22-My0051760		X	X	X
10	SX_IB_20220520_08_27_SS_Primary_EUF	May 20, 2022	8:27AM	AUS Leachate - pH 5.0	M22-My0051761	X		X	
11	SX_OB_20220520_08_35_S_S_Triplicate_E	May 20, 2022	8:35AM	AUS Leachate - pH 5.0	M22-My0051762	X		X	

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<b>Project Name:</b>	20220521151909-Eurofin-6	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	UF								
12	SX_IB_20220520_12_17_SS_Primary_EUF	May 20, 2022	12:17PM	AUS Leachate - pH 5.0	M22-My0051763	X		X	
13	SX_OB_20220520_12_31_SS_Primary_EUF	May 20, 2022	12:31PM	AUS Leachate - pH 5.0	M22-My0051764	X		X	
14	SX_OB_20220520_16_31_SS_Primary_EUF	May 20, 2022	4:31PM	AUS Leachate - pH 5.0	M22-My0051765	X		X	
15	SX_OB_20220520_16_33_SS	May 20, 2022	4:33PM	AUS Leachate - pH 5.0	M22-My0051766	X		X	

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<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	520_16_33_S S_Duplicate_E UF			- pH 5.0	My0051766				
16	SX_OB_20220 520_20_02_S S_Primary_EU F	May 20, 2022	8:02PM	AUS Leachate - pH 5.0	M22- My0051767	X		X	
17	SX_OB_20220 521_00_03_S S_Primary_EU F	May 21, 2022	12:03AM	AUS Leachate - pH 5.0	M22- My0051768	X		X	
18	SX_OB_20220 521_04_01_S S_Primary_EU	May 21, 2022	4:01AM	AUS Leachate - pH 5.0	M22- My0051769	X		X	

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<b>Project Name:</b>	20220521151909-Eurofin-6	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	F								
19	SX_IB_20220520_08_27_SS_Primary_EUF	May 20, 2022	8:27AM	AUS Leachate - Reagent Water	M22-My0051770	X		X	
20	SX_OB_20220520_08_35_S_S_Triplicate_EUF	May 20, 2022	8:35AM	AUS Leachate - Reagent Water	M22-My0051771	X		X	
21	SX_IB_20220520_12_17_SS_Primary_EUF	May 20, 2022	12:17PM	AUS Leachate - Reagent Water	M22-My0051772	X		X	
22	SX_OB_20220520_12_31_S_S_Primary_EU	May 20, 2022	12:31PM	AUS Leachate - Reagent Water	M22-My0051773	X		X	



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<b>Project Name:</b>	20220521151909-Eurofin-6	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	S_Primary_EU F			Water					
23	SX_OB_20220 520_16_31_S S_Primary_EU F	May 20, 2022	4:31PM	AUS Leachate - Reagent Water	M22- My0051774	X		X	
24	SX_OB_20220 520_16_33_S S_Duplicate_E UF	May 20, 2022	4:33PM	AUS Leachate - Reagent Water	M22- My0051775	X		X	
25	SX_OB_20220 520_20_02_S S_Primary_EU F	May 20, 2022	8:02PM	AUS Leachate - Reagent Water	M22- My0051776	X		X	

<b>Company Name:</b>	Agon Environmental Pty Ltd - VIC	<b>Order No.:</b>		<b>Received:</b>	May 21, 2022 10:20 AM
<b>Address:</b>	3/224 Glen Osmond Road Fullarton SA 5063	<b>Report #:</b>	890571	<b>Due:</b>	May 30, 2022
<b>Project Name:</b>	20220521151909-Eurofin-6	<b>Phone:</b>	08 8338 1009	<b>Priority:</b>	5 Day
<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

**Eurofins Analytical Services Manager : Michael Cassidy**

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
26	SX_OB_20220521_00_03_S_S_Primary_EU_F	May 21, 2022	12:03AM	AUS Leachate - Reagent Water	M22-My0051777	X		X	
27	SX_OB_20220521_04_01_S_S_Primary_EU_F	May 21, 2022	4:01AM	AUS Leachate - Reagent Water	M22-My0051778	X		X	
<b>Test Counts</b>						18	9	27	9

## Internal Quality Control Review and Glossary

### General

- 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.
- All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
- Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
- 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

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

### Terms

<b>APHA</b>	American Public Health Association
<b>COC</b>	Chain of Custody
<b>CP</b>	Client Parent - QC was performed on samples pertaining to this report
<b>CRM</b>	Certified Reference Material (ISO17034) - reported as percent recovery.
<b>Dry</b>	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
<b>Duplicate</b>	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
<b>LOR</b>	Limit of Reporting.
<b>LCS</b>	Laboratory Control Sample - reported as percent recovery.
<b>Method Blank</b>	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.
<b>NCP</b>	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.
<b>RPD</b>	Relative Percent Difference between two Duplicate pieces of analysis.
<b>SPIKE</b>	Addition of the analyte to the sample and reported as percentage recovery.
<b>SRA</b>	Sample Receipt Advice
<b>Surr - Surrogate</b>	The addition of a like compound to the analyte target and reported as percentage recovery.
<b>TBTO</b>	Tributyltin oxide ( <i>bis</i> -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.
<b>TCLP</b>	Toxicity Characteristic Leaching Procedure
<b>TEQ</b>	Toxic Equivalency Quotient or Total Equivalence
<b>QSM</b>	US Department of Defense Quality Systems Manual Version 5.4
<b>US EPA</b>	United States Environmental Protection Agency
<b>WA DWER</b>	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

- 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.
- 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.
- 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.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- 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
<b>Method Blank</b>						
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
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 (PFTTrDA)	ug/L	< 0.01		0.01	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/L	< 0.01		0.01	Pass	
<b>Method Blank</b>						
<b>Perfluoroalkyl sulfonamido substances</b>						
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	
<b>Method Blank</b>						
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
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	
<b>Method Blank</b>						
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
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	
<b>LCS - % Recovery</b>						
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA)	%	116		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	96		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	85		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	64		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	58		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	71		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	63		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	92		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	68		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	105		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	139		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code		
<b>LCS - % Recovery</b>									
<b>Perfluoroalkyl sulfonamido substances</b>									
Perfluorooctane sulfonamide (FOSA)	%	73			50-150	Pass			
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	96			50-150	Pass			
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	104			50-150	Pass			
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	120			50-150	Pass			
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	97			50-150	Pass			
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	56			50-150	Pass			
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	89			50-150	Pass			
<b>LCS - % Recovery</b>									
<b>Perfluoroalkyl sulfonic acids (PFSA's)</b>									
Perfluorobutanesulfonic acid (PFBS)	%	57			50-150	Pass			
Perfluorononanesulfonic acid (PFNS)	%	80			50-150	Pass			
Perfluoropropanesulfonic acid (PFPrS)	%	83			50-150	Pass			
Perfluoropentanesulfonic acid (PFPeS)	%	65			50-150	Pass			
Perfluorohexanesulfonic acid (PFHxS)	%	78			50-150	Pass			
Perfluoroheptanesulfonic acid (PFHpS)	%	69			50-150	Pass			
Perfluorooctanesulfonic acid (PFOS)	%	112			50-150	Pass			
Perfluorodecanesulfonic acid (PFDS)	%	77			50-150	Pass			
<b>LCS - % Recovery</b>									
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)</b>									
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	91			50-150	Pass			
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	104			50-150	Pass			
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	76			50-150	Pass			
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	102			50-150	Pass			
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
<b>Duplicate</b>									
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>									
				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	M22-My0051771	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	M22-My0051771	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	M22-My0051771	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-My0051771	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	M22-My0051771	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	M22-My0051771	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M22-My0051771	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-My0051771	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-My0051771	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-My0051771	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-My0051771	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
<b>Duplicate</b>									
<b>Perfluoroalkyl sulfonamido substances</b>									
				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	M22-My0051771	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0051771	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0051771	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0051771	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0051771	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	

<b>Duplicate</b>								
<b>Perfluoroalkyl sulfonamido substances</b>				Result 1	Result 2	RPD		
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0051771	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0051771	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
<b>Duplicate</b>								
<b>Perfluoroalkyl sulfonic acids (PFSA's)</b>				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-My0051771	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-My0051771	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-My0051771	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-My0051771	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-My0051771	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0051771	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-My0051771	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-My0051771	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
<b>Duplicate</b>								
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)</b>				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-My0051771	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0051771	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0051771	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0051771	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
Joseph Edouard	Senior Analyst-PFAS
Mary Makarios	Senior Analyst-Sample Properties



**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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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 **890571-S**  
Project name **20220521151909-Eurofin-6**  
Project ID **JC0927**  
Received Date **May 21, 2022**

Client Sample ID			SX_IB_202205 20_08_27_SS_ Primary_EUF	SX_OB_20220 520_08_35_SS Triplicate_EU F	SX_IB_202205 20_12_17_SS_ Primary_EUF	SX_OB_20220 520_12_31_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0051752	M22- My0051753	M22- My0051754	M22- My0051755
Date Sampled			May 20, 2022	May 20, 2022	May 20, 2022	May 20, 2022
Test/Reference	LOR	Unit				
<b>Total Recoverable Hydrocarbons</b>						
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 <sup>N02</sup>	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) <sup>N04</sup>	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) <sup>N01</sup>	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
<b>Volatile Organics</b>						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
<b>Volatile Organics</b>						
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



Client Sample ID			SX_IB_202205 20_08_27_SS_ Primary_EUF	SX_OB_20220 520_08_35_SS _TriPLICATE_EU F	SX_IB_202205 20_12_17_SS_ Primary_EUF	SX_OB_20220 520_12_31_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0051752	M22- My0051753	M22- My0051754	M22- My0051755
Date Sampled			May 20, 2022	May 20, 2022	May 20, 2022	May 20, 2022
Test/Reference	LOR	Unit				
<b>Volatile Organics</b>						
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	%	58	60	73	52
Toluene-d8 (surr.)	1	%	59	59	72	60
<b>Polycyclic Aromatic Hydrocarbons</b>						
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

Client Sample ID			SX_IB_202205 20_08_27_SS_ Primary_EUF	SX_OB_20220 520_08_35_SS _TriPLICATE_EU F	SX_IB_202205 20_12_17_SS_ Primary_EUF	SX_OB_20220 520_12_31_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0051752	M22- My0051753	M22- My0051754	M22- My0051755
Date Sampled			May 20, 2022	May 20, 2022	May 20, 2022	May 20, 2022
Test/Reference	LOR	Unit				
<b>Polycyclic Aromatic Hydrocarbons</b>						
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 <sup>N07</sup>	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	%	86	60	62	58
p-Terphenyl-d14 (surr.)	1	%	97	107	62	53
<b>Organochlorine Pesticides</b>						
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
Dibutylchloroendate (surr.)	1	%	95	121	74	148
Tetrachloro-m-xylene (surr.)	1	%	56	59	57	56

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Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0051752	M22- My0051753	M22- My0051754	M22- My0051755
Date Sampled			May 20, 2022	May 20, 2022	May 20, 2022	May 20, 2022
Test/Reference	LOR	Unit				
<b>Polychlorinated Biphenyls</b>						
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
Dibutylchloroendate (surr.)	1	%	95	121	74	148
Tetrachloro-m-xylene (surr.)	1	%	56	59	57	56
<b>Phenols (Halogenated)</b>						
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
<b>Phenols (non-Halogenated)</b>						
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	%	42	62	66	59
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
<b>Chromium (hexavalent)</b>						
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
<b>Cyanide (total)</b>						
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
<b>Fluoride (Total)</b>						
Fluoride (Total)	100	mg/kg	170	160	< 100	140
<b>pH (1:5 Aqueous extract at 25°C as rec.)</b>						
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	7.4	7.8	8.7	7.5
<b>% Moisture</b>						
% Moisture	1	%	30	31	29	30
<b>Heavy Metals</b>						
Arsenic	2	mg/kg	57	45	55	56
Cadmium	1	mg/kg	< 1	< 1	< 1	< 1
Chromium	5	mg/kg	150	100	130	110
Copper	5	mg/kg	68	58	60	56
Lead	5	mg/kg	6.9	6.8	5.5	6.3
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_IB_202205 20_08_27_SS_ Primary_EUF	SX_OB_20220 520_08_35_SS _TriPLICATE_EU F	SX_IB_202205 20_12_17_SS_ Primary_EUF	SX_OB_20220 520_12_31_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0051752	M22- My0051753	M22- My0051754	M22- My0051755
Date Sampled			May 20, 2022	May 20, 2022	May 20, 2022	May 20, 2022
Test/Reference	LOR	Unit				
<b>Heavy Metals</b>						
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	190	150	190	150
Selenium	5	mg/kg	< 5	< 5	< 5	< 5
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	140	100	140	110
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTrDA) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	73	65	70	63
13C5-PFPeA (surr.)	1	%	74	73	51	62
13C5-PFHxA (surr.)	1	%	72	69	68	73
13C4-PFHpA (surr.)	1	%	69	71	68	73
13C8-PFOA (surr.)	1	%	77	70	81	68
13C5-PFNA (surr.)	1	%	74	77	67	75
13C6-PFDA (surr.)	1	%	89	71	67	80
13C2-PFUnDA (surr.)	1	%	103	96	96	111
13C2-PFDoDA (surr.)	1	%	89	88	107	101
13C2-PFTeDA (surr.)	1	%	123	127	115	108
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	90	88	80	96
D3-N-MeFOSA (surr.)	1	%	137	138	129	135
D5-N-EtFOSA (surr.)	1	%	122	123	117	116
D7-N-MeFOSE (surr.)	1	%	42	12	78	100
D9-N-EtFOSE (surr.)	1	%	100	88	90	101
D5-N-EtFOSAA (surr.)	1	%	62	77	135	92
D3-N-MeFOSAA (surr.)	1	%	100	69	129	108

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Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0051752	M22- My0051753	M22- My0051754	M22- My0051755
Date Sampled			May 20, 2022	May 20, 2022	May 20, 2022	May 20, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	74	72	72	63
18O2-PFHxS (surr.)	1	%	72	55	62	67
13C8-PFOS (surr.)	1	%	66	71	62	60
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	100	93	93	89
13C2-6:2 FTSA (surr.)	1	%	101	98	100	110
13C2-8:2 FTSA (surr.)	1	%	142	126	99	113
13C2-10:2 FTSA (surr.)	1	%	94	63	136	99
<b>PFASs Summations</b>						
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_20220 520_16_31_SS _Primary_EUF	SX_OB_20220 520_16_33_SS Duplicate_EU F	SX_OB_20220 520_20_02_SS _Primary_EUF	SX_OB_20220 521_00_03_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0051756	M22- My0051757	M22- My0051758	M22- My0051759
Date Sampled			May 20, 2022	May 20, 2022	May 20, 2022	May 21, 2022
Test/Reference	LOR	Unit				
<b>Total Recoverable Hydrocarbons</b>						
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 <sup>N02</sup>	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20

Client Sample ID			SX_OB_20220 520_16_31_SS _Primary_EUF	SX_OB_20220 520_16_33_SS _Duplicate_EU F	SX_OB_20220 520_20_02_SS _Primary_EUF	SX_OB_20220 521_00_03_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0051756	M22- My0051757	M22- My0051758	M22- My0051759
Date Sampled			May 20, 2022	May 20, 2022	May 20, 2022	May 21, 2022
Test/Reference	LOR	Unit				
<b>Total Recoverable Hydrocarbons</b>						
TRH C6-C10 less BTEX (F1) <sup>N04</sup>	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) <sup>N01</sup>	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
<b>Volatile Organics</b>						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
<b>Volatile Organics</b>						
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
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

Client Sample ID			SX_OB_20220 520_16_31_SS _Primary_EUF	SX_OB_20220 520_16_33_SS Duplicate_EU F	SX_OB_20220 520_20_02_SS _Primary_EUF	SX_OB_20220 521_00_03_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0051756	M22- My0051757	M22- My0051758	M22- My0051759
Date Sampled			May 20, 2022	May 20, 2022	May 20, 2022	May 21, 2022
Test/Reference	LOR	Unit				
<b>Volatile Organics</b>						
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	%	102	87	84	76
Toluene-d8 (surr.)	1	%	82	87	84	76
<b>Polycyclic Aromatic Hydrocarbons</b>						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene <sup>N07</sup>	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	%	58	59	62	57
p-Terphenyl-d14 (surr.)	1	%	61	60	92	53



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Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0051756	M22- My0051757	M22- My0051758	M22- My0051759
Date Sampled			May 20, 2022	May 20, 2022	May 20, 2022	May 21, 2022
Test/Reference	LOR	Unit				
<b>Organochlorine Pesticides</b>						
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	%	80	69	74	60
Tetrachloro-m-xylene (surr.)	1	%	59	53	58	128
<b>Polychlorinated Biphenyls</b>						
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	%	80	69	74	60
Tetrachloro-m-xylene (surr.)	1	%	59	53	58	128
<b>Phenols (Halogenated)</b>						
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



Client Sample ID			SX_OB_20220 520_16_31_SS _Primary_EUF	SX_OB_20220 520_16_33_SS _Duplicate_EU F	SX_OB_20220 520_20_02_SS _Primary_EUF	SX_OB_20220 521_00_03_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0051756	M22- My0051757	M22- My0051758	M22- My0051759
Date Sampled			May 20, 2022	May 20, 2022	May 20, 2022	May 21, 2022
Test/Reference	LOR	Unit				
<b>Phenols (non-Halogenated)</b>						
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	%	65	64	65	62
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
<b>Chromium (hexavalent)</b>						
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
<b>Cyanide (total)</b>						
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
<b>Fluoride (Total)</b>						
Fluoride (Total)	100	mg/kg	110	140	180	140
<b>pH (1:5 Aqueous extract at 25°C as rec.)</b>						
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	7.8	7.8	7.8	7.0
<b>% Moisture</b>						
% Moisture	1	%	32	33	32	30
<b>Heavy Metals</b>						
Arsenic	2	mg/kg	26	25	27	68
Cadmium	1	mg/kg	< 1	< 1	< 1	< 1
Chromium	5	mg/kg	130	120	130	110
Copper	5	mg/kg	72	68	66	60
Lead	5	mg/kg	5.6	5.2	5.6	6.6
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	210	160	180	170
Selenium	5	mg/kg	< 5	< 5	< 5	< 5
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	140	120	120	120
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTrDA) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	66	69	62	69
13C5-PFPeA (surr.)	1	%	74	92	60	56
13C5-PFHxA (surr.)	1	%	68	73	67	71

Client Sample ID			SX_OB_20220 520_16_31_SS _Primary_EUF	SX_OB_20220 520_16_33_SS _Duplicate_EU F	SX_OB_20220 520_20_02_SS _Primary_EUF	SX_OB_20220 521_00_03_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0051756	M22- My0051757	M22- My0051758	M22- My0051759
Date Sampled			May 20, 2022	May 20, 2022	May 20, 2022	May 21, 2022
Test/Reference	LOR	Unit				
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
13C4-PFHpA (surr.)	1	%	68	77	69	81
13C8-PFOA (surr.)	1	%	72	73	73	77
13C5-PFNA (surr.)	1	%	71	81	75	70
13C6-PFDA (surr.)	1	%	66	70	74	80
13C2-PFUnDA (surr.)	1	%	97	97	87	93
13C2-PFDoDA (surr.)	1	%	109	111	102	119
13C2-PFTeDA (surr.)	1	%	108	117	113	120
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	93	98	97	110
D3-N-MeFOSA (surr.)	1	%	147	146	138	126
D5-N-EtFOSA (surr.)	1	%	111	126	126	120
D7-N-MeFOSE (surr.)	1	%	28	86	31	66
D9-N-EtFOSE (surr.)	1	%	88	100	93	103
D5-N-EtFOSAA (surr.)	1	%	102	82	87	138
D3-N-MeFOSAA (surr.)	1	%	123	98	59	110
<b>Perfluoroalkyl sulfonic acids (PFSA)</b>						
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	64	76	69	79
18O2-PFHxS (surr.)	1	%	66	73	81	83
13C8-PFOS (surr.)	1	%	38	73	70	63
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	85	94	89	100
13C2-6:2 FTSA (surr.)	1	%	99	100	97	102

<b>Client Sample ID</b>			<b>SX_OB_20220 520_16_31_SS _Primary_EUF</b>	<b>SX_OB_20220 520_16_33_SS _Duplicate_EU F</b>	<b>SX_OB_20220 520_20_02_SS _Primary_EUF</b>	<b>SX_OB_20220 521_00_03_SS _Primary_EUF</b>
<b>Sample Matrix</b>			<b>Soil</b>	<b>Soil</b>	<b>Soil</b>	<b>Soil</b>
<b>Eurofins Sample No.</b>			<b>M22- My0051756</b>	<b>M22- My0051757</b>	<b>M22- My0051758</b>	<b>M22- My0051759</b>
<b>Date Sampled</b>			<b>May 20, 2022</b>	<b>May 20, 2022</b>	<b>May 20, 2022</b>	<b>May 21, 2022</b>
Test/Reference	LOR	Unit				
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
13C2-8:2 FTSA (surr.)	1	%	117	135	128	124
13C2-10:2 FTSA (surr.)	1	%	134	104	99	136
<b>PFASs Summations</b>						
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

<b>Client Sample ID</b>			<b>SX_OB_20220 521_04_01_SS _Primary_EUF</b>
<b>Sample Matrix</b>			<b>Soil</b>
<b>Eurofins Sample No.</b>			<b>M22- My0051760</b>
<b>Date Sampled</b>			<b>May 21, 2022</b>
Test/Reference	LOR	Unit	
<b>Total Recoverable Hydrocarbons</b>			
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
Naphthalene <sup>N02</sup>	0.5	mg/kg	< 0.5
TRH C6-C10	20	mg/kg	< 20
TRH C6-C10 less BTEX (F1) <sup>N04</sup>	20	mg/kg	< 20
TRH >C10-C16	50	mg/kg	< 50
TRH >C10-C16 less Naphthalene (F2) <sup>N01</sup>	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
<b>Volatile Organics</b>			
Hexachlorobutadiene	0.5	mg/kg	< 0.5
<b>Volatile Organics</b>			
1.1-Dichloroethane	0.5	mg/kg	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5
1.1-Dichloroethane	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

Client Sample ID			SX_OB_20220 521_04_01_SS _Primary_EUF
Sample Matrix			Soil
Eurofins Sample No.			M22- My0051760
Date Sampled			May 21, 2022
Test/Reference	LOR	Unit	
<b>Volatile Organics</b>			
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
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	%	87
Toluene-d8 (surr.)	1	%	88

<b>Client Sample ID</b>			<b>SX_OB_20220 521_04_01_SS _Primary_EUF</b>
<b>Sample Matrix</b>			<b>Soil</b>
<b>Eurofins Sample No.</b>			<b>M22- My0051760</b>
<b>Date Sampled</b>			<b>May 21, 2022</b>
Test/Reference	LOR	Unit	
<b>Polycyclic Aromatic Hydrocarbons</b>			
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 <sup>N07</sup>	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	%	63
p-Terphenyl-d14 (surr.)	1	%	73
<b>Organochlorine Pesticides</b>			
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

<b>Client Sample ID</b>			<b>SX_OB_20220 521_04_01_SS _Primary_EUF</b>
<b>Sample Matrix</b>			<b>Soil</b>
<b>Eurofins Sample No.</b>			<b>M22- My0051760</b>
<b>Date Sampled</b>			<b>May 21, 2022</b>
Test/Reference	LOR	Unit	
<b>Organochlorine Pesticides</b>			
Dibutylchlorendate (surr.)	1	%	51
Tetrachloro-m-xylene (surr.)	1	%	51
<b>Polychlorinated Biphenyls</b>			
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	%	51
Tetrachloro-m-xylene (surr.)	1	%	51
<b>Phenols (Halogenated)</b>			
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
<b>Phenols (non-Halogenated)</b>			
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	%	66
Total Non-Halogenated Phenol*	20	mg/kg	< 20
<b>Chromium (hexavalent)</b>			
Chromium (hexavalent)	1	mg/kg	< 1
Cyanide (total)	5	mg/kg	< 5
Fluoride (Total)	100	mg/kg	120
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	7.8
% Moisture	1	%	28

<b>Client Sample ID</b>			<b>SX_OB_20220 521_04_01_SS _Primary_EUF</b>
<b>Sample Matrix</b>			<b>Soil</b>
<b>Eurofins Sample No.</b>			<b>M22- My0051760</b>
<b>Date Sampled</b>			<b>May 21, 2022</b>
Test/Reference	LOR	Unit	
<b>Heavy Metals</b>			
Arsenic	2	mg/kg	44
Cadmium	1	mg/kg	< 1
Chromium	5	mg/kg	96
Copper	5	mg/kg	48
Lead	5	mg/kg	8.6
Mercury	0.1	mg/kg	< 0.1
Molybdenum	5	mg/kg	< 5
Nickel	5	mg/kg	120
Selenium	5	mg/kg	< 5
Silver	2	mg/kg	< 2
Tin	10	mg/kg	< 10
Zinc	5	mg/kg	92
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>			
Perfluorobutanoic acid (PFBA) <sup>N11</sup>	5	ug/kg	< 5
Perfluoropentanoic acid (PFPeA) <sup>N11</sup>	5	ug/kg	< 5
Perfluorohexanoic acid (PFHxA) <sup>N11</sup>	5	ug/kg	< 5
Perfluoroheptanoic acid (PFHpA) <sup>N11</sup>	5	ug/kg	< 5
Perfluorooctanoic acid (PFOA) <sup>N11</sup>	5	ug/kg	< 5
Perfluorononanoic acid (PFNA) <sup>N11</sup>	5	ug/kg	< 5
Perfluorodecanoic acid (PFDA) <sup>N11</sup>	5	ug/kg	< 5
Perfluoroundecanoic acid (PFUnDA) <sup>N11</sup>	5	ug/kg	< 5
Perfluorododecanoic acid (PFDoDA) <sup>N11</sup>	5	ug/kg	< 5
Perfluorotridecanoic acid (PFTeDA) <sup>N15</sup>	5	ug/kg	< 5
Perfluorotetradecanoic acid (PFTeDA) <sup>N11</sup>	5	ug/kg	< 5
13C4-PFBA (surr.)	1	%	63
13C5-PFPeA (surr.)	1	%	60
13C5-PFHxA (surr.)	1	%	71
13C4-PFHpA (surr.)	1	%	71
13C8-PFOA (surr.)	1	%	72
13C5-PFNA (surr.)	1	%	77
13C6-PFDA (surr.)	1	%	78
13C2-PFUnDA (surr.)	1	%	101
13C2-PFDoDA (surr.)	1	%	97
13C2-PFTeDA (surr.)	1	%	119
<b>Perfluoroalkyl sulfonamido substances</b>			
Perfluorooctane sulfonamide (FOSA) <sup>N11</sup>	5	ug/kg	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) <sup>N11</sup>	5	ug/kg	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) <sup>N11</sup>	5	ug/kg	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) <sup>N11</sup>	5	ug/kg	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) <sup>N11</sup>	5	ug/kg	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) <sup>N11</sup>	10	ug/kg	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) <sup>N11</sup>	10	ug/kg	< 10
13C8-FOSA (surr.)	1	%	91
D3-N-MeFOSA (surr.)	1	%	124

<b>Client Sample ID</b>			<b>SX_OB_20220</b>
<b>Sample Matrix</b>			<b>521_04_01_SS</b>
<b>Eurofins Sample No.</b>			<b>_Primary_EUF</b>
<b>Date Sampled</b>			<b>Soil</b>
<b>Test/Reference</b>	LOR	Unit	<b>M22-My0051760</b>
			<b>May 21, 2022</b>
<b>Perfluoroalkyl sulfonamido substances</b>			
D5-N-EtFOSA (surr.)	1	%	132
D7-N-MeFOSE (surr.)	1	%	122
D9-N-EtFOSE (surr.)	1	%	91
D5-N-EtFOSAA (surr.)	1	%	109
D3-N-MeFOSAA (surr.)	1	%	93
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>			
Perfluorobutanesulfonic acid (PFBS) <sup>N11</sup>	5	ug/kg	< 5
Perfluorononanesulfonic acid (PFNS) <sup>N15</sup>	5	ug/kg	< 5
Perfluoropropanesulfonic acid (PFPrS) <sup>N15</sup>	5	ug/kg	< 5
Perfluoropentanesulfonic acid (PFPeS) <sup>N15</sup>	5	ug/kg	< 5
Perfluorohexanesulfonic acid (PFHxS) <sup>N11</sup>	5	ug/kg	< 5
Perfluoroheptanesulfonic acid (PFHpS) <sup>N15</sup>	5	ug/kg	< 5
Perfluorooctanesulfonic acid (PFOS) <sup>N11</sup>	5	ug/kg	< 5
Perfluorodecanesulfonic acid (PFDS) <sup>N15</sup>	5	ug/kg	< 5
13C3-PFBS (surr.)	1	%	73
18O2-PFHxS (surr.)	1	%	74
13C8-PFOS (surr.)	1	%	59
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) <sup>N11</sup>	10	ug/kg	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) <sup>N11</sup>	5	ug/kg	< 5
13C2-4:2 FTSA (surr.)	1	%	97
13C2-6:2 FTSA (surr.)	1	%	113
13C2-8:2 FTSA (surr.)	1	%	126
13C2-10:2 FTSA (surr.)	1	%	93
<b>PFASs Summations</b>			
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 - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	May 23, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	May 23, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	May 23, 2022	14 Days
Volatile Organics - Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS	Melbourne	May 23, 2022	7 Days
Volatile Organics - Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)	Melbourne	May 23, 2022	7 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 23, 2022	14 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)	Melbourne	May 23, 2022	14 Days
Polychlorinated Biphenyls - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082)	Melbourne	May 23, 2022	28 Days
Phenols (Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 23, 2022	14 Days
Phenols (non-Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 23, 2022	14 Days
Chromium (hexavalent) - Method: LTM-INO-4230 Hexavalent Chromium by UV-Vis	Melbourne	May 23, 2022	28 Days
Cyanide (total) - Method: LTM-INO-4020 Total Free WAD Cyanide by CFA	Melbourne	May 25, 2022	14 Days
Fluoride (Total) - Method: LTM-INO-4150 Determination of Total Fluoride PART B – ISE	Melbourne	May 24, 2022	28 Days
pH (1:5 Aqueous extract at 25°C as rec.) - Method: LTM-GEN-7090 pH in soil by ISE	Melbourne	May 23, 2022	7 Days
Metals IWRG 621 : Metals M12 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	May 23, 2022	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Melbourne	May 21, 2022	14 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 23, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 23, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFASs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 23, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 23, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 21, 2022	

**Company Name:** Agon Environmental Pty Ltd - VIC  
**Address:** 3/224 Glen Osmond Road  
Fullarton  
SA 5063  
  
**Project Name:** 20220521151909-Eurofin-6  
**Project ID:** JC0927

**Order No.:**  
**Report #:** 890571  
**Phone:** 08 8338 1009  
**Fax:**

**Received:** May 21, 2022 10:20 AM  
**Due:** May 30, 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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	SX_IB_20220520_08_27_SS_Primary_EUF	May 20, 2022	8:27AM	Soil	M22-My0051752		X	X	X
2	SX_OB_20220520_08_35_SS_Triplicate_EUF	May 20, 2022	8:35AM	Soil	M22-My0051753		X	X	X
3	SX_IB_20220520_12_17_SS_Primary_EUF	May 20, 2022	12:17PM	Soil	M22-My0051754		X	X	X
4	SX_OB_20220520_12_31_SS	May 20, 2022	12:31PM	Soil	M22-My0051755		X	X	X

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	S_Primary_EU F								
5	SX_OB_20220 520_16_31_S S_Primary_EU F	May 20, 2022	4:31PM	Soil	M22- My0051756		X	X	X
6	SX_OB_20220 520_16_33_S S_Duplicate_E UF	May 20, 2022	4:33PM	Soil	M22- My0051757		X	X	X
7	SX_OB_20220 520_20_02_S S_Primary_EU F	May 20, 2022	8:02PM	Soil	M22- My0051758		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)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
8	SX_OB_20220521_00_03_S_S_Primary_EU_F	May 21, 2022	12:03AM	Soil	M22-My0051759		X	X	X
9	SX_OB_20220521_04_01_S_S_Primary_EU_F	May 21, 2022	4:01AM	Soil	M22-My0051760		X	X	X
10	SX_IB_20220520_08_27_SS_Primary_EUF	May 20, 2022	8:27AM	AUS Leachate - pH 5.0	M22-My0051761	X		X	
11	SX_OB_20220520_08_35_S_S_Triplicate_E	May 20, 2022	8:35AM	AUS Leachate - pH 5.0	M22-My0051762	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	UF								
12	SX_IB_20220520_12_17_SS_Primary_EUF	May 20, 2022	12:17PM	AUS Leachate - pH 5.0	M22-My0051763	X		X	
13	SX_OB_20220520_12_31_SS_Primary_EUF	May 20, 2022	12:31PM	AUS Leachate - pH 5.0	M22-My0051764	X		X	
14	SX_OB_20220520_16_31_SS_Primary_EUF	May 20, 2022	4:31PM	AUS Leachate - pH 5.0	M22-My0051765	X		X	
15	SX_OB_20220520_16_33_SS	May 20, 2022	4:33PM	AUS Leachate - pH 5.0	M22-My0051766	X		X	

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<b>Project ID:</b>	JC0927	<b>Fax:</b>		<b>Contact Name:</b>	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	520_16_33_S S_Duplicate_E UF			- pH 5.0	My0051766				
16	SX_OB_20220 520_20_02_S S_Primary_EU F	May 20, 2022	8:02PM	AUS Leachate - pH 5.0	M22- My0051767	X		X	
17	SX_OB_20220 521_00_03_S S_Primary_EU F	May 21, 2022	12:03AM	AUS Leachate - pH 5.0	M22- My0051768	X		X	
18	SX_OB_20220 521_04_01_S S_Primary_EU	May 21, 2022	4:01AM	AUS Leachate - pH 5.0	M22- My0051769	X		X	

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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	F								
19	SX_IB_20220520_08_27_SS_Primary_EUF	May 20, 2022	8:27AM	AUS Leachate - Reagent Water	M22-My0051770	X		X	
20	SX_OB_20220520_08_35_S_S_Triplicate_EUF	May 20, 2022	8:35AM	AUS Leachate - Reagent Water	M22-My0051771	X		X	
21	SX_IB_20220520_12_17_SS_Primary_EUF	May 20, 2022	12:17PM	AUS Leachate - Reagent Water	M22-My0051772	X		X	
22	SX_OB_20220520_12_31_S_S_Primary_EU	May 20, 2022	12:31PM	AUS Leachate - Reagent Water	M22-My0051773	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
	S_Primary_EU F			Water					
23	SX_OB_20220 520_16_31_S S_Primary_EU F	May 20, 2022	4:31PM	AUS Leachate - Reagent Water	M22- My0051774	X	X		
24	SX_OB_20220 520_16_33_S S_Duplicate_E UF	May 20, 2022	4:33PM	AUS Leachate - Reagent Water	M22- My0051775	X	X		
25	SX_OB_20220 520_20_02_S S_Primary_EU F	May 20, 2022	8:02PM	AUS Leachate - Reagent Water	M22- My0051776	X	X		



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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
<b>Melbourne Laboratory - NATA # 1261 Site # 1254</b>						X	X	X	X
<b>Sydney Laboratory - NATA # 1261 Site # 18217</b>									
<b>Brisbane Laboratory - NATA # 1261 Site # 20794</b>									
<b>Mayfield Laboratory - NATA # 1261 Site # 25079</b>									
<b>Perth Laboratory - NATA # 2377 Site # 2370</b>									
<b>External Laboratory</b>									
26	SX_OB_20220521_00_03_S_S_Primary_EU_F	May 21, 2022	12:03AM	AUS Leachate - Reagent Water	M22-My0051777	X		X	
27	SX_OB_20220521_04_01_S_S_Primary_EU_F	May 21, 2022	4:01AM	AUS Leachate - Reagent Water	M22-My0051778	X		X	
<b>Test Counts</b>						18	9	27	9

**Internal Quality Control Review and Glossary**
**General**

- 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.
- All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
- Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
- 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**

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

**Terms**

<b>APHA</b>	American Public Health Association
<b>COC</b>	Chain of Custody
<b>CP</b>	Client Parent - QC was performed on samples pertaining to this report
<b>CRM</b>	Certified Reference Material (ISO17034) - reported as percent recovery.
<b>Dry</b>	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
<b>Duplicate</b>	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
<b>LOR</b>	Limit of Reporting.
<b>LCS</b>	Laboratory Control Sample - reported as percent recovery.
<b>Method Blank</b>	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.
<b>NCP</b>	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.
<b>RPD</b>	Relative Percent Difference between two Duplicate pieces of analysis.
<b>SPIKE</b>	Addition of the analyte to the sample and reported as percentage recovery.
<b>SRA</b>	Sample Receipt Advice
<b>Surr - Surrogate</b>	The addition of a like compound to the analyte target and reported as percentage recovery.
<b>TBTO</b>	Tributyltin oxide ( <i>bis</i> -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.
<b>TCLP</b>	Toxicity Characteristic Leaching Procedure
<b>TEQ</b>	Toxic Equivalency Quotient or Total Equivalence
<b>QSM</b>	US Department of Defense Quality Systems Manual Version 5.4
<b>US EPA</b>	United States Environmental Protection Agency
<b>WA DWER</b>	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**

- 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.
- 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.
- 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.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- 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
<b>Method Blank</b>							
<b>Total Recoverable Hydrocarbons</b>							
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	
<b>Method Blank</b>							
<b>Volatile Organics</b>							
Hexachlorobutadiene	mg/kg	< 0.5			0.5	Pass	
<b>Method Blank</b>							
<b>Volatile Organics</b>							
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	
<b>Method Blank</b>							
<b>Polycyclic Aromatic Hydrocarbons</b>							
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	
<b>Method Blank</b>							
<b>Organochlorine Pesticides</b>							
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	
<b>Method Blank</b>							
<b>Polychlorinated Biphenyls</b>							
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	
<b>Method Blank</b>							
<b>Phenols (Halogenated)</b>							
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	
<b>Method Blank</b>							
<b>Phenols (non-Halogenated)</b>							
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	
<b>Method Blank</b>							
Chromium (hexavalent)	mg/kg	< 1			1	Pass	
Cyanide (total)	mg/kg	< 5			5	Pass	
Fluoride (Total)	mg/kg	< 100			100	Pass	
<b>Method Blank</b>							
<b>Heavy Metals</b>							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 1			1	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	< 5			5	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	
<b>Method Blank</b>						
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
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	
<b>Method Blank</b>						
<b>Perfluoroalkyl sulfonamido substances</b>						
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	
<b>Method Blank</b>						
<b>Perfluoroalkyl sulfonic acids (PFSAs)</b>						
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	
<b>Method Blank</b>						
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>						
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	
<b>LCS - % Recovery</b>						
<b>Total Recoverable Hydrocarbons</b>						
TRH C6-C9	%	101		70-130	Pass	
TRH C10-C14	%	120		70-130	Pass	
Naphthalene	%	106		70-130	Pass	
TRH C6-C10	%	101		70-130	Pass	
TRH >C10-C16	%	122		70-130	Pass	
<b>LCS - % Recovery</b>						
<b>Volatile Organics</b>						
1.1-Dichloroethene	%	99		70-130	Pass	
1.1.1-Trichloroethane	%	90		70-130	Pass	
1.2-Dichlorobenzene	%	105		70-130	Pass	
1.2-Dichloroethane	%	113		70-130	Pass	
Benzene	%	92		70-130	Pass	
Ethylbenzene	%	110		70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
m&p-Xylenes	%	110			70-130	Pass	
Toluene	%	98			70-130	Pass	
Trichloroethene	%	81			70-130	Pass	
Xylenes - Total*	%	111			70-130	Pass	
<b>LCS - % Recovery</b>							
<b>Polycyclic Aromatic Hydrocarbons</b>							
Acenaphthene	%	96			70-130	Pass	
Acenaphthylene	%	108			70-130	Pass	
Anthracene	%	101			70-130	Pass	
Benz(a)anthracene	%	95			70-130	Pass	
Benzo(a)pyrene	%	94			70-130	Pass	
Benzo(b&i)fluoranthene	%	84			70-130	Pass	
Benzo(g,h,i)perylene	%	104			70-130	Pass	
Benzo(k)fluoranthene	%	109			70-130	Pass	
Chrysene	%	93			70-130	Pass	
Dibenz(a,h)anthracene	%	101			70-130	Pass	
Fluoranthene	%	105			70-130	Pass	
Fluorene	%	101			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	104			70-130	Pass	
Naphthalene	%	95			70-130	Pass	
Phenanthrene	%	101			70-130	Pass	
Pyrene	%	107			70-130	Pass	
<b>LCS - % Recovery</b>							
<b>Organochlorine Pesticides</b>							
Chlordanes - Total	%	90			70-130	Pass	
4,4'-DDD	%	96			70-130	Pass	
4,4'-DDE	%	98			70-130	Pass	
4,4'-DDT	%	94			70-130	Pass	
a-HCH	%	83			70-130	Pass	
Aldrin	%	90			70-130	Pass	
b-HCH	%	102			70-130	Pass	
d-HCH	%	99			70-130	Pass	
Dieldrin	%	101			70-130	Pass	
Endosulfan I	%	97			70-130	Pass	
Endosulfan II	%	87			70-130	Pass	
Endosulfan sulphate	%	91			70-130	Pass	
Endrin	%	81			70-130	Pass	
Endrin aldehyde	%	89			70-130	Pass	
Endrin ketone	%	76			70-130	Pass	
g-HCH (Lindane)	%	89			70-130	Pass	
Heptachlor	%	93			70-130	Pass	
Heptachlor epoxide	%	93			70-130	Pass	
Hexachlorobenzene	%	83			70-130	Pass	
Methoxychlor	%	86			70-130	Pass	
<b>LCS - % Recovery</b>							
<b>Polychlorinated Biphenyls</b>							
Aroclor-1260	%	94			70-130	Pass	
<b>LCS - % Recovery</b>							
<b>Phenols (Halogenated)</b>							
2-Chlorophenol	%	96			25-140	Pass	
2,4-Dichlorophenol	%	96			25-140	Pass	
2,4,5-Trichlorophenol	%	93			25-140	Pass	
2,4,6-Trichlorophenol	%	98			25-140	Pass	
2,6-Dichlorophenol	%	91			25-140	Pass	



Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
4-Chloro-3-methylphenol	%	96		25-140	Pass	
Pentachlorophenol	%	93		25-140	Pass	
Tetrachlorophenols - Total	%	79		25-140	Pass	
<b>LCS - % Recovery</b>						
<b>Phenols (non-Halogenated)</b>						
2-Cyclohexyl-4,6-dinitrophenol	%	86		25-140	Pass	
2-Methyl-4,6-dinitrophenol	%	93		25-140	Pass	
2-Nitrophenol	%	90		25-140	Pass	
2,4-Dimethylphenol	%	85		25-140	Pass	
2,4-Dinitrophenol	%	91		25-140	Pass	
2-Methylphenol (o-Cresol)	%	84		25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	85		25-140	Pass	
4-Nitrophenol	%	100		25-140	Pass	
Dinoseb	%	100		25-140	Pass	
Phenol	%	98		25-140	Pass	
<b>LCS - % Recovery</b>						
Chromium (hexavalent)	%	93		70-130	Pass	
Cyanide (total)	%	74		70-130	Pass	
Fluoride (Total)	%	114		70-130	Pass	
<b>LCS - % Recovery</b>						
<b>Heavy Metals</b>						
Arsenic	%	99		80-120	Pass	
Cadmium	%	90		80-120	Pass	
Chromium	%	101		80-120	Pass	
Copper	%	99		80-120	Pass	
Lead	%	107		80-120	Pass	
Mercury	%	107		80-120	Pass	
Molybdenum	%	101		80-120	Pass	
Nickel	%	95		80-120	Pass	
Selenium	%	99		80-120	Pass	
Silver	%	89		80-120	Pass	
Tin	%	102		80-120	Pass	
Zinc	%	106		80-120	Pass	
<b>LCS - % Recovery</b>						
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>						
Perfluorobutanoic acid (PFBA)	%	100		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	106		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	91		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	95		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	109		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	86		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	97		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	105		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	129		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	76		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	122		50-150	Pass	
<b>LCS - % Recovery</b>						
<b>Perfluoroalkyl sulfonamido substances</b>						
Perfluorooctane sulfonamide (FOSA)	%	96		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	101		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	92		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	89		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	97		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	93		50-150	Pass	



Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	87			50-150	Pass		
<b>LCS - % Recovery</b>								
<b>Perfluoroalkyl sulfonic acids (PFASs)</b>								
Perfluorobutanesulfonic acid (PFBS)	%	80			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	119			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	114			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	87			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	95			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	118			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	115			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	94			50-150	Pass		
<b>LCS - % Recovery</b>								
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	98			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	110			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)	%	131			50-150	Pass		
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
<b>Spike - % Recovery</b>								
<b>Polycyclic Aromatic Hydrocarbons</b>				Result 1				
Acenaphthene	M22-My0043926	NCP	%	88		70-130	Pass	
Acenaphthylene	M22-My0043926	NCP	%	95		70-130	Pass	
Anthracene	M22-My0043926	NCP	%	84		70-130	Pass	
Benz(a)anthracene	M22-My0043926	NCP	%	78		70-130	Pass	
Benzo(a)pyrene	M22-My0043926	NCP	%	89		70-130	Pass	
Benzo(b&j)fluoranthene	M22-My0043926	NCP	%	83		70-130	Pass	
Benzo(g,h,i)perylene	M22-My0043926	NCP	%	71		70-130	Pass	
Benzo(k)fluoranthene	M22-My0043926	NCP	%	99		70-130	Pass	
Chrysene	M22-My0043926	NCP	%	79		70-130	Pass	
Dibenz(a,h)anthracene	M22-My0043926	NCP	%	75		70-130	Pass	
Fluoranthene	M22-My0043926	NCP	%	83		70-130	Pass	
Fluorene	M22-My0043926	NCP	%	88		70-130	Pass	
Indeno(1,2,3-cd)pyrene	M22-My0043926	NCP	%	92		70-130	Pass	
Naphthalene	M22-My0043926	NCP	%	86		70-130	Pass	
Phenanthrene	M22-My0043926	NCP	%	80		70-130	Pass	
Pyrene	M22-My0043926	NCP	%	86		70-130	Pass	
<b>Spike - % Recovery</b>								
<b>Polychlorinated Biphenyls</b>				Result 1				
Aroclor-1016	M22-My0054849	NCP	%	87		70-130	Pass	
Aroclor-1260	M22-My0054849	NCP	%	110		70-130	Pass	
<b>Spike - % Recovery</b>								
<b>Phenols (Halogenated)</b>				Result 1				
2-Chlorophenol	M22-My0034970	NCP	%	84		30-130	Pass	
2,4-Dichlorophenol	M22-My0034970	NCP	%	74		30-130	Pass	
2,4,5-Trichlorophenol	M22-My0034970	NCP	%	66		30-130	Pass	
2,4,6-Trichlorophenol	M22-My0034970	NCP	%	70		30-130	Pass	
2,6-Dichlorophenol	M22-My0034970	NCP	%	71		30-130	Pass	
4-Chloro-3-methylphenol	M22-My0034970	NCP	%	76		30-130	Pass	
Pentachlorophenol	M22-My0034970	NCP	%	71		30-130	Pass	
Tetrachlorophenols - Total	M22-My0034970	NCP	%	65		30-130	Pass	
<b>Spike - % Recovery</b>								
<b>Phenols (non-Halogenated)</b>				Result 1				
2-Cyclohexyl-4,6-dinitrophenol	M22-My0034970	NCP	%	101		30-130	Pass	
2-Methyl-4,6-dinitrophenol	M22-My0034970	NCP	%	101		30-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
2-Nitrophenol	M22-My0034970	NCP	%	68		30-130	Pass	
2,4-Dimethylphenol	M22-My0034970	NCP	%	78		30-130	Pass	
2,4-Dinitrophenol	M22-My0034970	NCP	%	58		30-130	Pass	
2-Methylphenol (o-Cresol)	M22-My0034970	NCP	%	81		30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M22-My0034970	NCP	%	77		30-130	Pass	
4-Nitrophenol	M22-My0034970	NCP	%	82		30-130	Pass	
Dinoseb	M22-My0034970	NCP	%	107		30-130	Pass	
Phenol	M22-My0034970	NCP	%	77		30-130	Pass	
<b>Spike - % Recovery</b>								
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>				Result 1				
Perfluorobutanoic acid (PFBA)	M22-My0051752	CP	%	97		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M22-My0051752	CP	%	111		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M22-My0051752	CP	%	87		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-My0051752	CP	%	92		50-150	Pass	
Perfluorooctanoic acid (PFOA)	M22-My0051752	CP	%	107		50-150	Pass	
Perfluorononanoic acid (PFNA)	M22-My0051752	CP	%	92		50-150	Pass	
Perfluorodecanoic acid (PFDA)	M22-My0051752	CP	%	84		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-My0051752	CP	%	93		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-My0051752	CP	%	98		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-My0051752	CP	%	69		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-My0051752	CP	%	119		50-150	Pass	
<b>Spike - % Recovery</b>								
<b>Perfluoroalkyl sulfonamido substances</b>				Result 1				
Perfluorooctane sulfonamide (FOSA)	M22-My0051752	CP	%	77		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0051752	CP	%	90		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0051752	CP	%	107		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0051752	CP	%	113		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0051752	CP	%	90		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0051752	CP	%	73		50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0051752	CP	%	79		50-150	Pass	
<b>Spike - % Recovery</b>								
<b>Perfluoroalkyl sulfonic acids (PFSAs)</b>				Result 1				
Perfluorobutanesulfonic acid (PFBS)	M22-My0051752	CP	%	78		50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-My0051752	CP	%	112		50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-My0051752	CP	%	111		50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-My0051752	CP	%	80		50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-My0051752	CP	%	86		50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0051752	CP	%	85		50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-My0051752	CP	%	94		50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-My0051752	CP	%	82		50-150	Pass	
<b>Spike - % Recovery</b>								

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
<b>n:2 Fluorotelomer sulfonic acids (n:2 FTSA)</b>				Result 1				
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-My0051752	CP	%	92		50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0051752	CP	%	118		50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0051752	CP	%	142		50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0051752	CP	%	124		50-150	Pass	
<b>Spike - % Recovery</b>								
<b>Total Recoverable Hydrocarbons</b>				Result 1				
TRH C6-C9	M22-My0051753	CP	%	85		70-130	Pass	
TRH C10-C14	M22-My0051753	CP	%	125		70-130	Pass	
Naphthalene	M22-My0051753	CP	%	109		70-130	Pass	
TRH C6-C10	M22-My0051753	CP	%	85		70-130	Pass	
TRH >C10-C16	M22-My0051753	CP	%	128		70-130	Pass	
<b>Spike - % Recovery</b>								
<b>Volatile Organics</b>				Result 1				
1,1-Dichloroethene	M22-My0051753	CP	%	84		70-130	Pass	
1,1,1-Trichloroethane	M22-My0051753	CP	%	82		70-130	Pass	
1,2-Dichlorobenzene	M22-My0051753	CP	%	106		70-130	Pass	
1,2-Dichloroethane	M22-My0051753	CP	%	111		70-130	Pass	
Benzene	M22-My0051753	CP	%	80		70-130	Pass	
Ethylbenzene	M22-My0051753	CP	%	99		70-130	Pass	
m&p-Xylenes	M22-My0051753	CP	%	100		70-130	Pass	
o-Xylene	M22-My0051753	CP	%	103		70-130	Pass	
Toluene	M22-My0051753	CP	%	86		70-130	Pass	
Trichloroethene	M22-My0051753	CP	%	72		70-130	Pass	
Xylenes - Total*	M22-My0051753	CP	%	101		70-130	Pass	
<b>Spike - % Recovery</b>								
<b>Organochlorine Pesticides</b>				Result 1				
Chlordanes - Total	M22-My0051753	CP	%	94		70-130	Pass	
4,4'-DDD	M22-My0051753	CP	%	87		70-130	Pass	
4,4'-DDE	M22-My0051753	CP	%	102		70-130	Pass	
4,4'-DDT	M22-My0051753	CP	%	77		70-130	Pass	
a-HCH	M22-My0051753	CP	%	106		70-130	Pass	
Aldrin	M22-My0051753	CP	%	97		70-130	Pass	
b-HCH	M22-My0051753	CP	%	106		70-130	Pass	
d-HCH	M22-My0051753	CP	%	84		70-130	Pass	
Dieldrin	M22-My0051753	CP	%	108		70-130	Pass	
Endosulfan I	M22-My0051753	CP	%	97		70-130	Pass	
Endosulfan II	M22-My0051753	CP	%	107		70-130	Pass	
Endosulfan sulphate	M22-My0051753	CP	%	99		70-130	Pass	
Endrin	M22-My0051753	CP	%	90		70-130	Pass	
Endrin aldehyde	M22-My0051753	CP	%	90		70-130	Pass	
Endrin ketone	M22-My0051753	CP	%	93		70-130	Pass	
g-HCH (Lindane)	M22-My0051753	CP	%	107		70-130	Pass	
Heptachlor	M22-My0051753	CP	%	75		70-130	Pass	
Heptachlor epoxide	M22-My0051753	CP	%	98		70-130	Pass	
Hexachlorobenzene	M22-My0051753	CP	%	103		70-130	Pass	
Methoxychlor	M22-My0051753	CP	%	110		70-130	Pass	
<b>Spike - % Recovery</b>								
<b>Heavy Metals</b>				Result 1				

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Arsenic	M22-My0051753	CP	%	78			75-125	Pass	
Cadmium	M22-My0051753	CP	%	106			75-125	Pass	
Chromium	M22-My0051753	CP	%	89			75-125	Pass	
Copper	M22-My0051753	CP	%	81			75-125	Pass	
Lead	M22-My0051753	CP	%	98			75-125	Pass	
Mercury	M22-My0051753	CP	%	113			75-125	Pass	
Molybdenum	M22-My0051753	CP	%	104			75-125	Pass	
Nickel	M22-My0051753	CP	%	71			75-125	Fail	Q08
Selenium	M22-My0051753	CP	%	88			75-125	Pass	
Silver	M22-My0051753	CP	%	104			75-125	Pass	
Tin	M22-My0051753	CP	%	103			75-125	Pass	
Zinc	M22-My0051753	CP	%	82			75-125	Pass	
<b>Spike - % Recovery</b>									
				Result 1					
Fluoride (Total)	M22-My0051754	CP	%	103			70-130	Pass	
<b>Spike - % Recovery</b>									
				Result 1					
Fluoride (Total)	M22-My0051760	CP	%	91			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
<b>Duplicate</b>									
<b>Total Recoverable Hydrocarbons</b>				Result 1	Result 2	RPD			
TRH C6-C9	M22-My0051752	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	M22-My0046932	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M22-My0046932	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M22-My0046932	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Naphthalene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M22-My0051752	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	M22-My0046932	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M22-My0046932	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	M22-My0046932	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
<b>Duplicate</b>									
<b>Volatile Organics</b>				Result 1	Result 2	RPD			
Hexachlorobutadiene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
<b>Duplicate</b>									
<b>Volatile Organics</b>				Result 1	Result 2	RPD			
1.1-Dichloroethane	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trichlorobenzene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	M22-My0046455	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	M22-My0046455	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
4-Chlorotoluene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Methyl-2-pentanone (MIBK)	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Allyl chloride	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzene	M22-My0051752	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Bromobenzene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromochloromethane	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromodichloromethane	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromoform	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromomethane	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon disulfide	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon Tetrachloride	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chlorobenzene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroethane	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroform	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloromethane	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1,2-Dichloroethene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1,3-Dichloropropene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromochloromethane	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromomethane	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorodifluoromethane	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ethylbenzene	M22-My0051752	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Iodomethane	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Isopropyl benzene (Cumene)	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
m&p-Xylenes	M22-My0051752	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Methylene Chloride	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
o-Xylene	M22-My0051752	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Styrene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Tetrachloroethene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Toluene	M22-My0051752	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
trans-1,2-Dichloroethene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1,3-Dichloropropene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichloroethene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichlorofluoromethane	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Vinyl chloride	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Xylenes - Total*	M22-My0051752	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass



Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	M22-My0051752	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4.4'-DDD	M22-My0051752	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDE	M22-My0051752	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDT	M22-My0051752	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	M22-My0051752	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	M22-My0051752	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	M22-My0051752	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	M22-My0051752	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	M22-My0051752	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	M22-My0051752	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	M22-My0051752	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	M22-My0051752	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	M22-My0051752	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	M22-My0051752	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	M22-My0051752	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	M22-My0051752	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	M22-My0051752	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	M22-My0054812	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	M22-My0051752	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	M22-My0051752	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	M22-My0051752	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	M22-My0051752	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	M22-My0051752	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	M22-My0051752	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	M22-My0051752	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	M22-My0051752	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	M22-My0051752	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	M22-My0051752	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2-Chlorophenol	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4-Dichlorophenol	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4.5-Trichlorophenol	M22-My0051752	CP	mg/kg	< 1	< 1	<1	30%	Pass
2.4.6-Trichlorophenol	M22-My0051752	CP	mg/kg	< 1	< 1	<1	30%	Pass
2.6-Dichlorophenol	M22-My0054812	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chloro-3-methylphenol	M22-My0051752	CP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	M22-My0051752	CP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	M22-My0051752	CP	mg/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4.6-dinitrophenol	M22-My0051752	CP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4.6-dinitrophenol	M22-My0051752	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	M22-My0051752	CP	mg/kg	< 1	< 1	<1	30%	Pass
2.4-Dimethylphenol	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2.4-Dinitrophenol	M22-My0051752	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	M22-My0051752	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	M22-My0051752	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	M22-My0051752	CP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	M22-My0051752	CP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	M22-My0051752	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

<b>Duplicate</b>								
				Result 1	Result 2	RPD		
Chromium (hexavalent)	M22-My0051077	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Cyanide (total)	M22-My0051752	CP	mg/kg	< 5	< 5	<1	30%	Pass
Fluoride (Total)	M22-My0054834	NCP	mg/kg	210	180	16	30%	Pass
pH (1:5 Aqueous extract at 25°C as rec.)	M22-My0051752	CP	pH Units	7.4	7.6	pass	30%	Pass
% Moisture	M22-My0051752	CP	%	30	31	2.0	30%	Pass
<b>Duplicate</b>								
<b>Heavy Metals</b>				Result 1	Result 2	RPD		
Arsenic	M22-My0051752	CP	mg/kg	57	45	24	30%	Pass
Cadmium	M22-My0051752	CP	mg/kg	< 1	< 1	<1	30%	Pass
Chromium	M22-My0051752	CP	mg/kg	150	130	13	30%	Pass
Copper	M22-My0051752	CP	mg/kg	68	60	13	30%	Pass
Lead	M22-My0051752	CP	mg/kg	6.9	5.9	15	30%	Pass
Mercury	M22-My0051752	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Molybdenum	M22-My0051752	CP	mg/kg	< 5	< 5	<1	30%	Pass
Nickel	M22-My0051752	CP	mg/kg	190	170	10	30%	Pass
Selenium	M22-My0051752	CP	mg/kg	< 5	< 5	<1	30%	Pass
Silver	M22-My0051752	CP	mg/kg	< 2	< 2	<1	30%	Pass
Tin	M22-My0051752	CP	mg/kg	< 10	< 10	<1	30%	Pass
Zinc	M22-My0051752	CP	mg/kg	140	110	27	30%	Pass
<b>Duplicate</b>								
<b>Perfluoroalkyl carboxylic acids (PFCAs)</b>				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanoic acid (PFNA)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotridecanoic acid (PFTTrDA)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
<b>Duplicate</b>								
<b>Perfluoroalkyl sulfonamido substances</b>				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	N22-My0054102	NCP	ug/kg	< 10	< 10	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	N22-My0054102	NCP	ug/kg	< 10	< 10	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	N22-My0054102	NCP	ug/kg	< 10	< 10	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	N22-My0054102	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	M22-My0051753	CP	mg/kg	45	45	<1	30%	Pass
Cadmium	M22-My0051753	CP	mg/kg	< 1	< 1	<1	30%	Pass
Chromium	M22-My0051753	CP	mg/kg	100	110	4.0	30%	Pass
Copper	M22-My0051753	CP	mg/kg	58	58	1.0	30%	Pass
Lead	M22-My0051753	CP	mg/kg	6.8	6.7	2.0	30%	Pass
Mercury	M22-My0051753	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Molybdenum	M22-My0051753	CP	mg/kg	< 5	< 5	<1	30%	Pass
Nickel	M22-My0051753	CP	mg/kg	150	150	2.0	30%	Pass
Selenium	M22-My0051753	CP	mg/kg	< 5	< 5	<1	30%	Pass
Silver	M22-My0051753	CP	mg/kg	< 2	< 2	<1	30%	Pass
Tin	M22-My0051753	CP	mg/kg	< 10	< 10	<1	30%	Pass
Zinc	M22-My0051753	CP	mg/kg	100	110	2.0	30%	Pass



## Comments

### Sample Integrity

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

### Qualifier Codes/Comments

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



**Glenn Jackson**  
General Manager


Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please [click here](#).

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CHAIN OF CUSTODY DOCUMENTATION										 Australian Laboratory Services Pty Ltd		
CLIENT: Agon Environmental					SAMPLER: HK - EP Risk Martha - 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@wqo.com.au							
SITE: 20220520043942-ALS-52 P.O. NO.:					EMAIL INVOICE TO: (if different to report) Labreports.TST@agonenviro.com.au agonenvironmental@esdat.com.au							
RESULTS REQUIRED (Date): 5 days QUOTE NO.: ME-150-19 WGTP					ANALYSIS REQUIRED including SUITES (note - suite codes must be listed to attract suite prices)							
FOR LAB/FACILITY USE ONLY COOLER SEAL (circle appropriate) YES NO SAMPLE TEMPERATURE CHILLED: Yes No			COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:							Notes:		
SAMPLE INFORMATION (note: S = Soil, W=Water)					CONTAINER INFORMATION							
ALS ID	SAMPLE ID	MATRIX	DATE	Time	Type / Code	Total bottles	Spoil Sample Prep	P-16 plus Cr	PFAS 28 Extended suite	ASLP PFAS - Extended Suite (Lab to determine pH)	DI Leachate PFAS - Extended Suite	
14 15 16 17 18 19 20 21 22 23 24	1 SX_IB_20220519_07_51_SS_Primary_ALS	S	19.05.22	7:51	Bucket	1	X	X	X	X	X	
	2 SX_OB_20220519_07_59_SS_Primary_ALS	S	19.05.22	7:59	Bucket	1	X	X	X	X	X	
	3 SX_OB_20220519_08_00_SS_Duplicate_ALS	S	19.05.22	8:00	Bucket	1	X	X	X	X	X	
	4 SX_IB_20220519_08_43_SR_Rinseate_ALS	W	19.05.22	8:43	Bottle	1			X			
	5 SX_IB_20220519_08_44_SB_Blank_ALS	W	19.05.22	8:44	Bottle	1			X			
	6 SX_IB_20220519_11_57_SS_Primary_ALS	S	19.05.22	11:57	Bucket	1	X	X	X	X	X	
	7 SX_OB_20220519_15_49_SS_Primary_ALS	S	19.05.22	15:49	Bucket	1	X	X	X	X	X	
	8 SX_IB_20220519_15_58_SS_Triplicate_ALS	S	19.05.22	15:58	Bucket	1	X	X	X	X	X	
	9 SX_IB_20220519_16_07_SS_Primary_ALS	S	19.05.22	16:07	Bucket	1	X	X	X	X	X	
	10 SX_IB_20220519_20_06_SS_Triplicate_ALS	S	19.05.22	20:06	Bucket	1	X	X	X	X	X	
	11 SX_IB_20220519_20_10_SS_Primary_ALS	S	19.05.22	20:10	Bucket	1	X	X	X	X	X	
	12 SX_IB_20220520_00_01_SS_Primary_ALS	S	20.05.22	00:01	Bucket	1	X	X	X	X	X	
	13 SX_OB_20220520_04_06_SS_Primary_ALS	S	20.05.22	4:06	Bucket	1	X	X	X	X	X	
RELINQUISHED BY:					RECEIVED BY:					METHOD OF SHIPMENT		
Name: Martha / Emma			Date: 20/5/22		Name: Emma			Date: 20/5		Con' Note No:		
Of: Agon EP Risk			Time: 8:48am		Of: Au			Time: 9:30		Transport Co:		
Name:			Date:		Name:			Date:				
Of:			Time:		Of:			Time:				
Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Gd Preserved; S = Sodium Hydroxide Preserved 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 Bag for Acid Sulphate Soils; B = Unpreserved Bag												

Environmental Division  
Melbourne  
Work Order Reference  
**EM2209335**



Telephone: +61 3 8549 9600

## CERTIFICATE OF ANALYSIS

**Work Order** : **EM2209335**  
**Client** : **AGON ENVIRONMENTAL PTY LTD**  
**Contact** : DAVID LAWSON  
**Address** : D1.1 63-85 TURNER STREET  
 PORT MELBOURNE 3207  
  
**Telephone** : ----  
**Project** : JC0927  
**Order number** : ----  
**C-O-C number** : 20220520043942-ALS-52  
**Sampler** : HK - EP Risk, Martha - Agon  
**Site** : 20220520043942-ALS-52  
**Quote number** : EN/150/19 -WGTP -Bulk Sample Quote  
**No. of samples received** : 24  
**No. of samples analysed** : 24

**Page** : 1 of 40  
**Laboratory** : Environmental Division Melbourne  
**Contact** : Josh Alexander  
**Address** : 4 Westall Rd Springvale VIC Australia 3171  
  
**Telephone** : +61-3-8549 9600  
**Date Samples Received** : 20-May-2022 09:50  
**Date Analysis Commenced** : 21-May-2022  
**Issue Date** : 27-May-2022 17:14



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.

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Dilani Fernando	Laboratory Coordinator	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 Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.  
LOR = Limit of reporting  
^ = This result is computed from individual analyte detections at or above the level of reporting  
ø = ALS is not NATA accredited for these tests.  
~ = Indicates an estimated value.

- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a,h)anthracene (1.0), Benzo(g,h,i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- 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.
- EP231X: Poor matrix spike recovery for sample EM2209335-015 due to sample matrix interference.
- 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_IB_20220519_07_51_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS	SX_OB_20220519_08_00_SS_Duplicate_ALS	SX_IB_20220519_11_57_SS_Primary_ALS	SX_OB_20220519_15_49_SS_Primary_ALS
Sampling date / time				19-May-2022 07:51	19-May-2022 07:59	19-May-2022 08:00	19-May-2022 11:57	19-May-2022 15:49
Compound	CAS Number	LOR	Unit	EM2209335-001	EM2209335-002	EM2209335-003	EM2209335-006	EM2209335-007
				Result	Result	Result	Result	Result
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
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
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
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
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
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_IB_20220519_07_51_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS	SX_OB_20220519_08_00_SS_Duplicate_ALS	SX_IB_20220519_11_57_SS_Primary_ALS	SX_OB_20220519_15_49_SS_Primary_ALS
Sampling date / time				19-May-2022 07:51	19-May-2022 07:59	19-May-2022 08:00	19-May-2022 11:57	19-May-2022 15:49
Compound	CAS Number	LOR	Unit	EM2209335-001	EM2209335-002	EM2209335-003	EM2209335-006	EM2209335-007
				Result	Result	Result	Result	Result
<b>EP231C: Perfluoroalkyl Sulfonamides - Continued</b>								
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
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								
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
<b>EP231P: PFAS Sums</b>								
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
<b>EP231S: PFAS Surrogate</b>								
13C4-PFOS	----	0.02	%	106	98.1	100	91.8	96.7
13C8-PFOA	----	0.02	%	103	95.1	87.9	89.9	92.4



## Analytical Results

Sub-Matrix: ASLP LEACHATE  
 (Matrix: WATER)

Sample ID

				SX_IB_20220519_15_58_SS_Triplicate_ALS	SX_IB_20220519_16_07_SS_Primary_ALS	SX_IB_20220519_20_06_SS_Triplicate_ALS	SX_IB_20220519_20_10_SS_Primary_ALS	SX_IB_20220520_00_01_SS_Primary_ALS
Sampling date / time				19-May-2022 15:58	19-May-2022 16:07	19-May-2022 20:06	19-May-2022 20:10	20-May-2022 00:01
Compound	CAS Number	LOR	Unit	EM2209335-008	EM2209335-009	EM2209335-010	EM2209335-011	EM2209335-012
				Result	Result	Result	Result	Result
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
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
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
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
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
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
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	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_IB_20220519_15_58_SS_Triplicate_ALS	SX_IB_20220519_16_07_SS_Primary_ALS	SX_IB_20220519_20_06_SS_Triplicate_ALS	SX_IB_20220519_20_10_SS_Primary_ALS	SX_IB_20220520_00_01_SS_Primary_ALS
Sampling date / time				19-May-2022 15:58	19-May-2022 16:07	19-May-2022 20:06	19-May-2022 20:10	20-May-2022 00:01
Compound	CAS Number	LOR	Unit	EM2209335-008	EM2209335-009	EM2209335-010	EM2209335-011	EM2209335-012
				Result	Result	Result	Result	Result
<b>EP231C: Perfluoroalkyl Sulfonamides - Continued</b>								
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
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								
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
<b>EP231P: PFAS Sums</b>								
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
<b>EP231S: PFAS Surrogate</b>								
13C4-PFOS	----	0.02	%	91.0	105	101	102	109
13C8-PFOA	----	0.02	%	96.2	96.6	91.4	95.7	103





## Analytical Results

Sub-Matrix: ASLP LEACHATE  
 (Matrix: WATER)

Sample ID

SX\_OB\_20220520\_04  
 \_06\_SS\_Primary\_ALS

Sampling date / time		20-May-2022 04:06		---	---	---	---
Compound	CAS Number	LOR	Unit	EM2209335-013	-----	-----	-----
				Result	---	---	---
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>							
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	---	---	---
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>							
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	---	---	---
<b>EP231C: Perfluoroalkyl Sulfonamides</b>							
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: ASLP LEACHATE  
 (Matrix: WATER)

Sample ID

				SX_OB_20220520_04_06_SS_Primary_ALS	----	----	----	----
				20-May-2022 04:06	----	----	----	----
Compound	CAS Number	LOR	Unit	EM2209335-013	-----	-----	-----	-----
				Result	----	----	----	----
<b>EP231C: Perfluoroalkyl Sulfonamides - Continued</b>								
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	----	----	----	----
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								
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	----	----	----	----
<b>EP231P: PFAS Sums</b>								
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	----	----	----	----
<b>EP231S: PFAS Surrogate</b>								
13C4-PFOS	----	0.02	%	105	----	----	----	----
13C8-PFOA	----	0.02	%	96.7	----	----	----	----



## Analytical Results

Sub-Matrix: DI WATER LEACHATE  
 (Matrix: WATER)

Sample ID

				SX_IB_20220519_07_51_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS	SX_OB_20220519_08_00_SS_Duplicate_ALS	SX_IB_20220519_11_57_SS_Primary_ALS	SX_OB_20220519_15_49_SS_Primary_ALS
Sampling date / time				19-May-2022 07:51	19-May-2022 07:59	19-May-2022 08:00	19-May-2022 11:57	19-May-2022 15:49
Compound	CAS Number	LOR	Unit	EM2209335-014	EM2209335-015	EM2209335-016	EM2209335-017	EM2209335-018
				Result	Result	Result	Result	Result
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
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
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
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
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
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_IB_20220519_07_51_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS	SX_OB_20220519_08_00_SS_Duplicate_ALS	SX_IB_20220519_11_57_SS_Primary_ALS	SX_OB_20220519_15_49_SS_Primary_ALS
Sampling date / time				19-May-2022 07:51	19-May-2022 07:59	19-May-2022 08:00	19-May-2022 11:57	19-May-2022 15:49
Compound	CAS Number	LOR	Unit	EM2209335-014	EM2209335-015	EM2209335-016	EM2209335-017	EM2209335-018
				Result	Result	Result	Result	Result
<b>EP231C: Perfluoroalkyl Sulfonamides - Continued</b>								
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
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								
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
<b>EP231P: PFAS Sums</b>								
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
<b>EP231S: PFAS Surrogate</b>								
13C4-PFOS	----	0.02	%	99.6	98.3	104	92.5	106
13C8-PFOA	----	0.02	%	96.0	91.0	90.5	96.8	91.9



## Analytical Results

Sub-Matrix: DI WATER LEACHATE  
 (Matrix: WATER)

Sample ID

				SX_IB_20220519_15_58_SS_Triplicate_ALS	SX_IB_20220519_16_07_SS_Primary_ALS	SX_IB_20220519_20_06_SS_Triplicate_ALS	SX_IB_20220519_20_10_SS_Primary_ALS	SX_IB_20220520_00_01_SS_Primary_ALS
Sampling date / time				19-May-2022 15:58	19-May-2022 16:07	19-May-2022 20:06	19-May-2022 20:10	20-May-2022 00:01
Compound	CAS Number	LOR	Unit	EM2209335-019	EM2209335-020	EM2209335-021	EM2209335-022	EM2209335-023
				Result	Result	Result	Result	Result
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
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
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
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
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
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
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	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_IB_20220519_15_58_SS_Triplicate_ALS	SX_IB_20220519_16_07_SS_Primary_ALS	SX_IB_20220519_20_06_SS_Triplicate_ALS	SX_IB_20220519_20_10_SS_Primary_ALS	SX_IB_20220520_00_01_SS_Primary_ALS
Sampling date / time				19-May-2022 15:58	19-May-2022 16:07	19-May-2022 20:06	19-May-2022 20:10	20-May-2022 00:01
Compound	CAS Number	LOR	Unit	EM2209335-019	EM2209335-020	EM2209335-021	EM2209335-022	EM2209335-023
				Result	Result	Result	Result	Result
<b>EP231C: Perfluoroalkyl Sulfonamides - Continued</b>								
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
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								
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
<b>EP231P: PFAS Sums</b>								
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
<b>EP231S: PFAS Surrogate</b>								
13C4-PFOS	----	0.02	%	96.8	103	104	96.1	95.0
13C8-PFOA	----	0.02	%	93.4	95.9	91.1	93.6	93.9



## Analytical Results

Sub-Matrix: DI WATER LEACHATE  
 (Matrix: WATER)

Sample ID

SX\_OB\_20220520\_04  
 \_06\_SS\_Primary\_ALS

Sampling date / time		LOR		Unit	Result				
20-May-2022 04:06									
EM2209335-024									
Result									
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>									
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	----	----	----	----	----
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>									
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	----	----	----	----	----
<b>EP231C: Perfluoroalkyl Sulfonamides</b>									
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_20220520_04 _06_SS_Primary_ALS	----	----	----	----
		Sampling date / time			20-May-2022 04:06	----	----	----	----
Compound	CAS Number	LOR	Unit	EM2209335-024	-----	-----	-----	-----	-----
				Result	----	----	----	----	----
<b>EP231C: Perfluoroalkyl Sulfonamides - Continued</b>									
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	----	----	----	----	----
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>									
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	----	----	----	----	----
<b>EP231P: PFAS Sums</b>									
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	----	----	----	----	----
<b>EP231S: PFAS Surrogate</b>									
13C4-PFOS	----	0.02	%	<b>96.9</b>	----	----	----	----	----
13C8-PFOA	----	0.02	%	<b>99.0</b>	----	----	----	----	----





## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_IB_20220519_07_51_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS	SX_OB_20220519_08_00_SS_Duplicate_ALS	SX_IB_20220519_11_57_SS_Primary_ALS	SX_OB_20220519_15_49_SS_Primary_ALS
Sampling date / time				19-May-2022 07:51	19-May-2022 07:59	19-May-2022 08:00	19-May-2022 11:57	19-May-2022 15:49
Compound	CAS Number	LOR	Unit	EM2209335-001	EM2209335-002	EM2209335-003	EM2209335-006	EM2209335-007
				Result	Result	Result	Result	Result
<b>EA001: pH in soil using 0.01M CaCl extract</b>								
pH (CaCl2)	----	0.1	pH Unit	7.7	7.9	7.7	7.8	7.8
<b>EA055: Moisture Content (Dried @ 105-110°C)</b>								
Moisture Content	----	1.0	%	26.8	30.6	28.2	30.0	23.4
<b>EG005(ED093)T: Total Metals by ICP-AES</b>								
Arsenic	7440-38-2	5	mg/kg	22	53	27	21	54
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	1
Chromium	7440-47-3	5	mg/kg	137	84	106	132	67
Copper	7440-50-8	5	mg/kg	86	57	61	62	56
Lead	7439-92-1	5	mg/kg	<5	6	<5	<5	<5
Molybdenum	7439-98-7	5	mg/kg	<5	<5	<5	<5	<5
Nickel	7440-02-0	5	mg/kg	186	140	153	176	155
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	106	94	104	105	87
<b>EG035T: Total Recoverable Mercury by FIMS</b>								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
<b>EG048: Hexavalent Chromium (Alkaline Digest)</b>								
Hexavalent Chromium	18540-29-9	1.0	mg/kg	2.2	1.2	<1.0	3.0	<1.0
<b>EK026SF: Total CN by Segmented Flow Analyser</b>								
Total Cyanide	57-12-5	5	mg/kg	<5	<5	<5	<5	<5
<b>EK040T: Fluoride Total</b>								
Fluoride	16984-48-8	100	mg/kg	300	230	250	280	190
<b>EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>								
Initial pH	----	0.1	pH Unit	8.3	7.9	8.1	7.9	7.4
After HCl pH	----	0.1	pH Unit	1.5	1.0	1.8	1.8	1.6
Extraction Fluid pH	----	0.1	pH Unit	5.0	5.0	5.0	5.0	5.0
Final pH	----	0.1	pH Unit	5.1	5.1	5.1	5.1	5.2
<b>EP066: Polychlorinated Biphenyls (PCB)</b>								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
<b>EP074A: Monocyclic Aromatic Hydrocarbons</b>								
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_IB_20220519_07_51_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS	SX_OB_20220519_08_00_SS_Duplicate_ALS	SX_IB_20220519_11_57_SS_Primary_ALS	SX_OB_20220519_15_49_SS_Primary_ALS
Sampling date / time				19-May-2022 07:51	19-May-2022 07:59	19-May-2022 08:00	19-May-2022 11:57	19-May-2022 15:49
Compound	CAS Number	LOR	Unit	EM2209335-001	EM2209335-002	EM2209335-003	EM2209335-006	EM2209335-007
				Result	Result	Result	Result	Result
<b>EP074A: Monocyclic Aromatic Hydrocarbons - Continued</b>								
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
<b>EP074H: Naphthalene</b>								
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
<b>EP074I: Volatile Halogenated Compounds</b>								
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
<b>EP075A: Phenolic Compounds (Halogenated)</b>								



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_IB_20220519_07_51_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS	SX_OB_20220519_08_00_SS_Duplicate_ALS	SX_IB_20220519_11_57_SS_Primary_ALS	SX_OB_20220519_15_49_SS_Primary_ALS
Sampling date / time				19-May-2022 07:51	19-May-2022 07:59	19-May-2022 08:00	19-May-2022 11:57	19-May-2022 15:49
Compound	CAS Number	LOR	Unit	EM2209335-001	EM2209335-002	EM2209335-003	EM2209335-006	EM2209335-007
				Result	Result	Result	Result	Result
<b>EP075A: Phenolic Compounds (Halogenated) - Continued</b>								
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
<b>EP075A: Phenolic Compounds (Non-halogenated)</b>								
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
<b>EP075B: Polynuclear Aromatic Hydrocarbons</b>								
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_IB_20220519_07_51_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS	SX_OB_20220519_08_00_SS_Duplicate_ALS	SX_IB_20220519_11_57_SS_Primary_ALS	SX_OB_20220519_15_49_SS_Primary_ALS
Sampling date / time				19-May-2022 07:51	19-May-2022 07:59	19-May-2022 08:00	19-May-2022 11:57	19-May-2022 15:49
Compound	CAS Number	LOR	Unit	EM2209335-001	EM2209335-002	EM2209335-003	EM2209335-006	EM2209335-007
				Result	Result	Result	Result	Result
<b>EP075B: Polynuclear Aromatic Hydrocarbons - Continued</b>								
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	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>
<b>EP075I: Organochlorine Pesticides</b>								
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_IB_20220519_07_51_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS	SX_OB_20220519_08_00_SS_Duplicate_ALS	SX_IB_20220519_11_57_SS_Primary_ALS	SX_OB_20220519_15_49_SS_Primary_ALS
Sampling date / time				19-May-2022 07:51	19-May-2022 07:59	19-May-2022 08:00	19-May-2022 11:57	19-May-2022 15:49
Compound	CAS Number	LOR	Unit	EM2209335-001	EM2209335-002	EM2209335-003	EM2209335-006	EM2209335-007
				Result	Result	Result	Result	Result
<b>EP075I: Organochlorine Pesticides - Continued</b>								
^ 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	72-54-8/72-55-9/5 0-2	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
<b>EP080/071: Total Petroleum Hydrocarbons</b>								
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
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions</b>								
>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
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
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_IB_20220519_07_51_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS	SX_OB_20220519_08_00_SS_Duplicate_ALS	SX_IB_20220519_11_57_SS_Primary_ALS	SX_OB_20220519_15_49_SS_Primary_ALS
Sampling date / time				19-May-2022 07:51	19-May-2022 07:59	19-May-2022 08:00	19-May-2022 11:57	19-May-2022 15:49
Compound	CAS Number	LOR	Unit	EM2209335-001	EM2209335-002	EM2209335-003	EM2209335-006	EM2209335-007
				Result	Result	Result	Result	Result
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
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
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
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
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								





## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_IB_20220519_07_51_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS	SX_OB_20220519_08_00_SS_Duplicate_ALS	SX_IB_20220519_11_57_SS_Primary_ALS	SX_OB_20220519_15_49_SS_Primary_ALS
Sampling date / time				19-May-2022 07:51	19-May-2022 07:59	19-May-2022 08:00	19-May-2022 11:57	19-May-2022 15:49
Compound	CAS Number	LOR	Unit	EM2209335-001	EM2209335-002	EM2209335-003	EM2209335-006	EM2209335-007
				Result	Result	Result	Result	Result
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued</b>								
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
<b>EP231P: PFAS Sums</b>								
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
<b>EP066S: PCB Surrogate</b>								
Decachlorobiphenyl	2051-24-3	0.1	%	111	121	121	116	110
<b>EP074S: VOC Surrogates (Ultra-Trace)</b>								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	91.8	90.7	89.0	83.3	85.4
Toluene-D8	2037-26-5	0.1	%	92.6	91.4	90.6	85.8	84.5
4-Bromofluorobenzene	460-00-4	0.1	%	99.6	100	102	95.3	96.0
<b>EP075S: Acid Extractable Surrogates (Waste Classification)</b>								
Phenol-d6	13127-88-3	0.025	%	86.5	97.7	105	88.3	82.6
2-Chlorophenol-D4	93951-73-6	0.025	%	82.4	93.8	99.2	87.3	80.4
2,4,6-Tribromophenol	118-79-6	0.025	%	86.1	94.4	103	91.0	84.4
<b>EP075T: Base/Neutral Extractable Surrogates (Waste Classification)</b>								
Nitrobenzene-D5	4165-60-0	0.025	%	84.9	96.3	100	86.3	84.2
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	84.2	92.5	98.8	87.0	82.7
2-Fluorobiphenyl	321-60-8	0.025	%	89.8	99.7	106	93.9	87.8
Anthracene-d10	1719-06-8	0.025	%	90.8	101	107	93.6	89.2
4-Terphenyl-d14	1718-51-0	0.025	%	93.0	103	110	96.9	90.9
<b>EP231S: PFAS Surrogate</b>								
13C4-PFOS	----	0.0002	%	102	96.9	121	93.7	102
13C8-PFOA	----	0.0002	%	98.6	99.8	112	91.6	101



## Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)		Sample ID		SX_IB_20220519_15_58_SS_Triplicate_ALS	SX_IB_20220519_16_07_SS_Primary_ALS	SX_IB_20220519_20_06_SS_Triplicate_ALS	SX_IB_20220519_20_10_SS_Primary_ALS	SX_IB_20220520_00_01_SS_Primary_ALS
		Sampling date / time		19-May-2022 15:58	19-May-2022 16:07	19-May-2022 20:06	19-May-2022 20:10	20-May-2022 00:01
Compound	CAS Number	LOR	Unit	EM2209335-008	EM2209335-009	EM2209335-010	EM2209335-011	EM2209335-012
				Result	Result	Result	Result	Result
<b>EA001: pH in soil using 0.01M CaCl extract</b>								
pH (CaCl <sub>2</sub> )	----	0.1	pH Unit	7.6	7.9	7.7	7.7	7.7
<b>EA055: Moisture Content (Dried @ 105-110°C)</b>								
Moisture Content	----	1.0	%	31.8	28.5	25.4	27.6	30.3
<b>EG005(ED093)T: Total Metals by ICP-AES</b>								
Arsenic	7440-38-2	5	mg/kg	20	21	24	33	23
Cadmium	7440-43-9	1	mg/kg	<1	<1	1	1	<1
Chromium	7440-47-3	5	mg/kg	134	133	127	133	140
Copper	7440-50-8	5	mg/kg	67	60	63	70	61
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	188	184	175	187	181
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	108	98	96	101	104
<b>EG035T: Total Recoverable Mercury by FIMS</b>								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
<b>EG048: Hexavalent Chromium (Alkaline Digest)</b>								
Hexavalent Chromium	18540-29-9	1.0	mg/kg	2.2	1.6	2.2	1.3	2.4
<b>EK026SF: Total CN by Segmented Flow Analyser</b>								
Total Cyanide	57-12-5	5	mg/kg	<5	<5	<5	<5	<5
<b>EK040T: Fluoride Total</b>								
Fluoride	16984-48-8	100	mg/kg	270	300	280	330	300
<b>EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>								
Initial pH	----	0.1	pH Unit	8.7	8.3	8.6	8.7	9.0
After HCl pH	----	0.1	pH Unit	1.6	1.6	1.5	1.6	1.5
Extraction Fluid pH	----	0.1	pH Unit	5.0	5.0	5.0	5.0	5.0
Final pH	----	0.1	pH Unit	5.1	5.1	5.1	5.1	5.1
<b>EP066: Polychlorinated Biphenyls (PCB)</b>								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
<b>EP074A: Monocyclic Aromatic Hydrocarbons</b>								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5





## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_IB_20220519_15_58_SS_Triplicate_ALS	SX_IB_20220519_16_07_SS_Primary_ALS	SX_IB_20220519_20_06_SS_Triplicate_ALS	SX_IB_20220519_20_10_SS_Primary_ALS	SX_IB_20220520_00_01_SS_Primary_ALS
Sampling date / time				19-May-2022 15:58	19-May-2022 16:07	19-May-2022 20:06	19-May-2022 20:10	20-May-2022 00:01
Compound	CAS Number	LOR	Unit	EM2209335-008	EM2209335-009	EM2209335-010	EM2209335-011	EM2209335-012
				Result	Result	Result	Result	Result
<b>EP074A: Monocyclic Aromatic Hydrocarbons - Continued</b>								
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
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
<sup>^</sup> Sum of monocyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
<sup>^</sup> Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
<b>EP074H: Naphthalene</b>								
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
<b>EP074I: Volatile Halogenated Compounds</b>								
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
<sup>^</sup> Sum of volatile chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
<sup>^</sup> Sum of other chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
<b>EP075A: Phenolic Compounds (Halogenated)</b>								
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



## Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID				
				SX_IB_20220519_15_58_SS_Triplicate_ALS	SX_IB_20220519_16_07_SS_Primary_ALS	SX_IB_20220519_20_06_SS_Triplicate_ALS	SX_IB_20220519_20_10_SS_Primary_ALS	SX_IB_20220520_00_01_SS_Primary_ALS
Sampling date / time				19-May-2022 15:58	19-May-2022 16:07	19-May-2022 20:06	19-May-2022 20:10	20-May-2022 00:01
Compound	CAS Number	LOR	Unit	EM2209335-008	EM2209335-009	EM2209335-010	EM2209335-011	EM2209335-012
				Result	Result	Result	Result	Result
<b>EP075A: Phenolic Compounds (Halogenated) - Continued</b>								
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
<b>EP075A: Phenolic Compounds (Non-halogenated)</b>								
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
<b>EP075B: Polynuclear Aromatic Hydrocarbons</b>								
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
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



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_IB_20220519_15_58_SS_Triplicate_ALS	SX_IB_20220519_16_07_SS_Primary_ALS	SX_IB_20220519_20_06_SS_Triplicate_ALS	SX_IB_20220519_20_10_SS_Primary_ALS	SX_IB_20220520_00_01_SS_Primary_ALS
Sampling date / time				19-May-2022 15:58	19-May-2022 16:07	19-May-2022 20:06	19-May-2022 20:10	20-May-2022 00:01
Compound	CAS Number	LOR	Unit	EM2209335-008	EM2209335-009	EM2209335-010	EM2209335-011	EM2209335-012
				Result	Result	Result	Result	Result
<b>EP075B: Polynuclear Aromatic Hydrocarbons - Continued</b>								
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	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>
<b>EP075I: Organochlorine Pesticides</b>								
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
^ 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	72-54-8/72-55-9/50-29-3	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



## Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_IB_20220519_15_58_SS_Triplicate_ALS	SX_IB_20220519_16_07_SS_Primary_ALS	SX_IB_20220519_20_06_SS_Triplicate_ALS	SX_IB_20220519_20_10_SS_Primary_ALS	SX_IB_20220520_00_01_SS_Primary_ALS
Sampling date / time				19-May-2022 15:58	19-May-2022 16:07	19-May-2022 20:06	19-May-2022 20:10	20-May-2022 00:01	
Compound	CAS Number	LOR	Unit	EM2209335-008	EM2209335-009	EM2209335-010	EM2209335-011	EM2209335-012	
				Result	Result	Result	Result	Result	
<b>EP075I: Organochlorine Pesticides - Continued</b>									
^ Sum of other organochlorine pesticides				----	0.03	mg/kg	<0.03	<0.03	<0.03
<b>EP080/071: Total Petroleum Hydrocarbons</b>									
C6 - C9 Fraction				----	20	mg/kg	<20	<20	<20
C10 - C14 Fraction				----	50	mg/kg	<50	<50	<50
C6 - C10 Fraction				C6_C10	20	mg/kg	<20	<20	<20
C15 - C28 Fraction				----	100	mg/kg	<100	<100	<100
C29 - C36 Fraction				----	100	mg/kg	<100	<100	<100
^ C10 - C36 Fraction (sum)				----	50	mg/kg	<50	<50	<50
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions</b>									
>C10 - C16 Fraction				----	50	mg/kg	<50	<50	<50
>C16 - C34 Fraction				----	100	mg/kg	<100	<100	<100
>C34 - C40 Fraction				----	100	mg/kg	<100	<100	<100
^ >C10 - C40 Fraction (sum)				----	50	mg/kg	<50	<50	<50
>C10 - C16 Fraction minus Naphthalene (F2)				----	50	mg/kg	<50	<50	<50
C6 - C10 Fraction minus BTEX (F1)				C6_C10-BTEX	20	mg/kg	<20	<20	<20
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>									
Perfluorobutane sulfonic acid (PFBS)				375-73-5	5.0	µg/kg	<5.0	<5.0	<5.0
Perfluoropentane sulfonic acid (PFPeS)				2706-91-4	5.0	µg/kg	<5.0	<5.0	<5.0
Perfluorohexane sulfonic acid (PFHxS)				355-46-4	5.0	µg/kg	<5.0	<5.0	<5.0
Perfluoroheptane sulfonic acid (PFHpS)				375-92-8	5.0	µg/kg	<5.0	<5.0	<5.0
Perfluorooctane sulfonic acid (PFOS)				1763-23-1	5.0	µg/kg	<5.0	<5.0	<5.0
Perfluorodecane sulfonic acid (PFDS)				335-77-3	5.0	µg/kg	<5.0	<5.0	<5.0
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>									
Perfluorobutanoic acid (PFBA)				375-22-4	5	µg/kg	<5	<5	<5
Perfluoropentanoic acid (PFPeA)				2706-90-3	5.0	µg/kg	<5.0	<5.0	<5.0
Perfluorohexanoic acid (PFHxA)				307-24-4	5.0	µg/kg	<5.0	<5.0	<5.0
Perfluoroheptanoic acid (PFHpA)				375-85-9	5.0	µg/kg	<5.0	<5.0	<5.0



## Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_IB_20220519_15_58_SS_Triplicate_ALS	SX_IB_20220519_16_07_SS_Primary_ALS	SX_IB_20220519_20_06_SS_Triplicate_ALS	SX_IB_20220519_20_10_SS_Primary_ALS	SX_IB_20220520_00_01_SS_Primary_ALS
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Compound	CAS Number	LOR	Unit	EM2209335-008	EM2209335-009	EM2209335-010	EM2209335-011	EM2209335-012	
				Result	Result	Result	Result	Result	
<b>EP231B: Perfluoroalkyl Carboxylic Acids - Continued</b>									
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	
<b>EP231C: Perfluoroalkyl Sulfonamides</b>									
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	
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>									
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	



## Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_IB_20220519_15_58_SS_Triplicate_ALS	SX_IB_20220519_16_07_SS_Primary_ALS	SX_IB_20220519_20_06_SS_Triplicate_ALS	SX_IB_20220519_20_10_SS_Primary_ALS	SX_IB_20220520_00_01_SS_Primary_ALS
Sampling date / time				19-May-2022 15:58	19-May-2022 16:07	19-May-2022 20:06	19-May-2022 20:10	20-May-2022 00:01	
Compound	CAS Number	LOR	Unit	EM2209335-008	EM2209335-009	EM2209335-010	EM2209335-011	EM2209335-012	
				Result	Result	Result	Result	Result	
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued</b>									
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	
<b>EP231P: PFAS Sums</b>									
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	
<b>EP066S: PCB Surrogate</b>									
Decachlorobiphenyl	2051-24-3	0.1	%	122	118	121	121	122	
<b>EP074S: VOC Surrogates (Ultra-Trace)</b>									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	89.6	89.5	76.8	91.0	89.9	
Toluene-D8	2037-26-5	0.1	%	92.3	93.4	80.7	94.9	91.0	
4-Bromofluorobenzene	460-00-4	0.1	%	102	104	89.5	104	98.7	
<b>EP075S: Acid Extractable Surrogates (Waste Classification)</b>									
Phenol-d6	13127-88-3	0.025	%	123	92.6	109	117	119	
2-Chlorophenol-D4	93951-73-6	0.025	%	117	89.6	103	111	112	
2,4,6-Tribromophenol	118-79-6	0.025	%	120	92.6	106	112	115	
<b>EP075T: Base/Neutral Extractable Surrogates (Waste Classification)</b>									
Nitrobenzene-D5	4165-60-0	0.025	%	119	92.2	106	114	115	
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	116	89.2	103	109	110	
2-Fluorobiphenyl	321-60-8	0.025	%	124	95.8	110	117	119	
Anthracene-d10	1719-06-8	0.025	%	124	96.0	111	118	118	
4-Terphenyl-d14	1718-51-0	0.025	%	131	100	114	124	123	
<b>EP231S: PFAS Surrogate</b>									
13C4-PFOS	----	0.0002	%	82.2	98.8	88.8	92.0	96.3	
13C8-PFOA	----	0.0002	%	92.8	109	93.4	95.6	108	



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220520_04_06_SS_Primary_ALS	SX_IB_20220519_07_51_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS	SX_OB_20220519_08_00_SS_Duplicate_ALS	SX_IB_20220519_11_57_SS_Primary_ALS
Sampling date / time				20-May-2022 04:06	19-May-2022 07:51	19-May-2022 07:59	19-May-2022 08:00	19-May-2022 11:57
Compound	CAS Number	LOR	Unit	EM2209335-013	EM2209335-014	EM2209335-015	EM2209335-016	EM2209335-017
				Result	Result	Result	Result	Result
<b>EA001: pH in soil using 0.01M CaCl extract</b>								
pH (CaCl <sub>2</sub> )	----	0.1	pH Unit	7.8	----	----	----	----
<b>EA055: Moisture Content (Dried @ 105-110°C)</b>								
Moisture Content	----	1.0	%	29.0	----	----	----	----
<b>EG005(ED093)T: Total Metals by ICP-AES</b>								
Arsenic	7440-38-2	5	mg/kg	152	----	----	----	----
Cadmium	7440-43-9	1	mg/kg	<1	----	----	----	----
Chromium	7440-47-3	5	mg/kg	72	----	----	----	----
Copper	7440-50-8	5	mg/kg	58	----	----	----	----
Lead	7439-92-1	5	mg/kg	<5	----	----	----	----
Molybdenum	7439-98-7	5	mg/kg	<5	----	----	----	----
Nickel	7440-02-0	5	mg/kg	109	----	----	----	----
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	66	----	----	----	----
<b>EG035T: Total Recoverable Mercury by FIMS</b>								
Mercury	7439-97-6	0.1	mg/kg	<0.1	----	----	----	----
<b>EG048: Hexavalent Chromium (Alkaline Digest)</b>								
Hexavalent Chromium	18540-29-9	1.0	mg/kg	<1.0	----	----	----	----
<b>EK026SF: Total CN by Segmented Flow Analyser</b>								
Total Cyanide	57-12-5	5	mg/kg	<5	----	----	----	----
<b>EK040T: Fluoride Total</b>								
Fluoride	16984-48-8	100	mg/kg	250	----	----	----	----
<b>EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>								
Initial pH	----	0.1	pH Unit	7.4	----	----	----	----
After HCl pH	----	0.1	pH Unit	1.6	----	----	----	----
Extraction Fluid pH	----	0.1	pH Unit	5.0	----	----	----	----
Final pH	----	0.1	pH Unit	5.1	----	----	----	----
<b>EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>								
Final pH	----	0.1	pH Unit	----	9.5	9.4	9.1	9.5
<b>EP066: Polychlorinated Biphenyls (PCB)</b>								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	----	----	----	----





## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220520_04_06_SS_Primary_ALS	SX_IB_20220519_07_51_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS	SX_OB_20220519_08_00_SS_Duplicate_ALS	SX_IB_20220519_11_57_SS_Primary_ALS
Sampling date / time				20-May-2022 04:06	19-May-2022 07:51	19-May-2022 07:59	19-May-2022 08:00	19-May-2022 11:57
Compound	CAS Number	LOR	Unit	EM2209335-013	EM2209335-014	EM2209335-015	EM2209335-016	EM2209335-017
				Result	Result	Result	Result	Result
<b>EP074A: Monocyclic Aromatic Hydrocarbons</b>								
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	----	----	----	----
<b>EP074H: Naphthalene</b>								
Naphthalene	91-20-3	1	mg/kg	<1	----	----	----	----
<b>EP074I: Volatile Halogenated Compounds</b>								
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_20220520_04_06_SS_Primary_ALS	SX_IB_20220519_07_51_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS	SX_OB_20220519_08_00_SS_Duplicate_ALS	SX_IB_20220519_11_57_SS_Primary_ALS
Sampling date / time				20-May-2022 04:06	19-May-2022 07:51	19-May-2022 07:59	19-May-2022 08:00	19-May-2022 11:57
Compound	CAS Number	LOR	Unit	EM2209335-013	EM2209335-014	EM2209335-015	EM2209335-016	EM2209335-017
				Result	Result	Result	Result	Result
<b>EP075A: Phenolic Compounds (Halogenated)</b>								
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	----	----	----	----
<b>EP075A: Phenolic Compounds (Non-halogenated)</b>								
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	----	----	----	----
<b>EP075B: Polynuclear Aromatic Hydrocarbons</b>								
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	----	----	----	----



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 (Matrix: SOIL)

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Sampling date / time				20-May-2022 04:06	19-May-2022 07:51	19-May-2022 07:59	19-May-2022 08:00	19-May-2022 11:57
Compound	CAS Number	LOR	Unit	EM2209335-013	EM2209335-014	EM2209335-015	EM2209335-016	EM2209335-017
				Result	Result	Result	Result	Result
<b>EP075B: Polynuclear Aromatic Hydrocarbons - Continued</b>								
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	<b>0.6</b>	----	----	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	<b>1.2</b>	----	----	----	----
<b>EP075I: Organochlorine Pesticides</b>								
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	----	----	----	----



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Sub-Matrix: SOIL  
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Sampling date / time				20-May-2022 04:06	19-May-2022 07:51	19-May-2022 07:59	19-May-2022 08:00	19-May-2022 11:57
Compound	CAS Number	LOR	Unit	EM2209335-013	EM2209335-014	EM2209335-015	EM2209335-016	EM2209335-017
				Result	Result	Result	Result	Result
<b>EP075I: Organochlorine Pesticides - Continued</b>								
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.30	mg/kg	<0.30	----	----	----	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	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	----	----	----	----
<b>EP080/071: Total Petroleum Hydrocarbons</b>								
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	----	----	----	----
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions</b>								
>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	----	----	----	----
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
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

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Sampling date / time				20-May-2022 04:06	19-May-2022 07:51	19-May-2022 07:59	19-May-2022 08:00	19-May-2022 11:57
Compound	CAS Number	LOR	Unit	EM2209335-013	EM2209335-014	EM2209335-015	EM2209335-016	EM2209335-017
				Result	Result	Result	Result	Result
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
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 (PFTTrDA)	72629-94-8	5.0	µg/kg	<5.0	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	5.0	µg/kg	<5.0	----	----	----	----
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
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	----	----	----	----
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220520_04_06_SS_Primary_ALS	SX_IB_20220519_07_51_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS	SX_OB_20220519_08_00_SS_Duplicate_ALS	SX_IB_20220519_11_57_SS_Primary_ALS
Sampling date / time				20-May-2022 04:06	19-May-2022 07:51	19-May-2022 07:59	19-May-2022 08:00	19-May-2022 11:57
Compound	CAS Number	LOR	Unit	EM2209335-013	EM2209335-014	EM2209335-015	EM2209335-016	EM2209335-017
				Result	Result	Result	Result	Result
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued</b>								
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	----	----	----	----
<b>EP231P: PFAS Sums</b>								
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	----	----	----	----
<b>EP066S: PCB Surrogate</b>								
Decachlorobiphenyl	2051-24-3	0.1	%	118	----	----	----	----
<b>EP074S: VOC Surrogates (Ultra-Trace)</b>								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	87.4	----	----	----	----
Toluene-D8	2037-26-5	0.1	%	89.8	----	----	----	----
4-Bromofluorobenzene	460-00-4	0.1	%	98.0	----	----	----	----
<b>EP075S: Acid Extractable Surrogates (Waste Classification)</b>								
Phenol-d6	13127-88-3	0.025	%	97.9	----	----	----	----
2-Chlorophenol-D4	93951-73-6	0.025	%	93.2	----	----	----	----
2,4,6-Tribromophenol	118-79-6	0.025	%	97.8	----	----	----	----
<b>EP075T: Base/Neutral Extractable Surrogates (Waste Classification)</b>								
Nitrobenzene-D5	4165-60-0	0.025	%	96.4	----	----	----	----
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	93.2	----	----	----	----
2-Fluorobiphenyl	321-60-8	0.025	%	99.8	----	----	----	----
Anthracene-d10	1719-06-8	0.025	%	100	----	----	----	----
4-Terphenyl-d14	1718-51-0	0.025	%	104	----	----	----	----
<b>EP231S: PFAS Surrogate</b>								
13C4-PFOS	----	0.0002	%	89.0	----	----	----	----
13C8-PFOA	----	0.0002	%	96.9	----	----	----	----



**Analytical Results**

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220519_15_49_SS_Primary_ALS	SX_IB_20220519_15_58_SS_Triplicate_ALS	SX_IB_20220519_16_07_SS_Primary_ALS	SX_IB_20220519_20_06_SS_Triplicate_ALS	SX_IB_20220519_20_10_SS_Primary_ALS
Sampling date / time				19-May-2022 15:49	19-May-2022 15:58	19-May-2022 16:07	19-May-2022 20:06	19-May-2022 20:10
Compound	CAS Number	LOR	Unit	EM2209335-018	EM2209335-019	EM2209335-020	EM2209335-021	EM2209335-022
				Result	Result	Result	Result	Result
<b>EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>								
Final pH	----	0.1	pH Unit	9.5	9.5	9.5	9.6	9.6



**Analytical Results**

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_IB_20220520_00_01_SS_Primary_ALS	SX_OB_20220520_04_06_SS_Primary_ALS	----	----	----
Sampling date / time				20-May-2022 00:01	20-May-2022 04:06	----	----	----	
Compound	CAS Number	LOR	Unit	EM2209335-023	EM2209335-024	-----	-----	-----	
				Result	Result	---	---	---	
<b>EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>									
Final pH	----	0.1	pH Unit	9.5	9.4	----	----	----	



## Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID		SX_IB_20220519_08_43_SR_Rinsate_ALS	SX_IB_20220519_08_44_SB_Blank_ALS	----	----	----
Sampling date / time			19-May-2022 08:43		19-May-2022 08:44		----	----	----
Compound	CAS Number	LOR	Unit	EM2209335-004	EM2209335-005	-----	-----	-----	
				Result	Result	---	---	---	
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>									
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	----	----	----	
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>									
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	----	----	----	
<b>EP231C: Perfluoroalkyl Sulfonamides</b>									
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_IB_20220519_08_43_SR_Rinsate_ALS	SX_IB_20220519_08_44_SB_Blank_ALS	----	----	----
Sampling date / time				19-May-2022 08:43	19-May-2022 08:44	----	----	----	
Compound	CAS Number	LOR	Unit	EM2209335-004	EM2209335-005	-----	-----	-----	
				Result	Result	---	---	---	
<b>EP231C: Perfluoroalkyl Sulfonamides - Continued</b>									
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	----	----	----	
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>									
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	----	----	----	
<b>EP231P: PFAS Sums</b>									
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	----	----	----	
<b>EP231S: PFAS Surrogate</b>									
13C4-PFOS	----	0.02	%	101	86.9	----	----	----	
13C8-PFOA	----	0.02	%	98.1	97.4	----	----	----	



## Surrogate Control Limits

Sub-Matrix: ASLP LEACHATE		Recovery Limits (%)	
Compound	CAS Number	Low	High
<b>EP231S: PFAS Surrogate</b>			
13C4-PFOS	----	65	140
13C8-PFOA	----	71	133

Sub-Matrix: DI WATER LEACHATE		Recovery Limits (%)	
Compound	CAS Number	Low	High
<b>EP231S: PFAS Surrogate</b>			
13C4-PFOS	----	65	140
13C8-PFOA	----	71	133

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
<b>EP066S: PCB Surrogate</b>			
Decachlorobiphenyl	2051-24-3	41	122
<b>EP074S: VOC Surrogates (Ultra-Trace)</b>			
1,2-Dichloroethane-D4	17060-07-0	59	119
Toluene-D8	2037-26-5	55	117
4-Bromofluorobenzene	460-00-4	59	123
<b>EP075S: Acid Extractable Surrogates (Waste Classification)</b>			
Phenol-d6	13127-88-3	63	134
2-Chlorophenol-D4	93951-73-6	60	125
2,4,6-Tribromophenol	118-79-6	54	129
<b>EP075T: Base/Neutral Extractable Surrogates (Waste Classification)</b>			
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
<b>EP231S: PFAS Surrogate</b>			
13C4-PFOS	----	68	136
13C8-PFOA	----	69	133

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
<b>EP231S: PFAS Surrogate</b>			
13C4-PFOS	----	65	140
13C8-PFOA	----	71	133

## QUALITY CONTROL REPORT

<b>Work Order</b>	<b>: EM2209335</b>	<b>Page</b>	: 1 of 32
<b>Client</b>	<b>: AGON ENVIRONMENTAL PTY LTD</b>	<b>Laboratory</b>	: Environmental Division Melbourne
<b>Contact</b>	: DAVID LAWSON	<b>Contact</b>	: Josh Alexander
<b>Address</b>	: D1.1 63-85 TURNER STREET PORT MELBOURNE 3207	<b>Address</b>	: 4 Westall Rd Springvale VIC Australia 3171
<b>Telephone</b>	: ----	<b>Telephone</b>	: +61-3-8549 9600
<b>Project</b>	: JC0927	<b>Date Samples Received</b>	: 20-May-2022
<b>Order number</b>	: ----	<b>Date Analysis Commenced</b>	: 21-May-2022
<b>C-O-C number</b>	: 20220520043942-ALS-52	<b>Issue Date</b>	: 27-May-2022
<b>Sampler</b>	: HK - EP Risk, Martha - Agon		
<b>Site</b>	: 20220520043942-ALS-52		
<b>Quote number</b>	: EN/150/19 -WGTP -Bulk Sample Quote		
<b>No. of samples received</b>	: 24		
<b>No. of samples analysed</b>	: 24		



This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

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

### Signatories

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

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Dilani Fernando	Laboratory Coordinator	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 (%)
<b>EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4357217)</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_Primary_ALS	EG005T: Arsenic	7440-38-2	5	mg/kg	22	15	40.7	No Limit
EM2209335-001	SX_IB_20220519_07_51_S S_Primary_ALS	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	137	128	7.0	0% - 20%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<5	<5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	186	187	0.0	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	86	65	29.0	0% - 50%
		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	<10	<10	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	106	98	7.9	0% - 20%
EM2209335-012	SX_IB_20220520_00_01_S S_Primary_ALS	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	140	124	12.2	0% - 20%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<5	<5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	181	198	9.1	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	23	24	4.9	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	61	69	13.4	0% - 50%
		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	<10	<10	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 (%)
<b>EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4357217) - continued</b>									
EM2209335-012	SX_IB_20220520_00_01_S S_Primary_ALS	EG005T: Zinc	7440-66-6	5	mg/kg	104	110	5.1	0% - 20%
<b>EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4359993)</b>									
EM2209285-002	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	7.8	7.8	0.0	0% - 20%
EM2209285-016	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	7.5	7.5	0.0	0% - 20%
<b>EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4359994)</b>									
EM2209335-011	SX_IB_20220519_20_10_S S_Primary_ALS	EA001: pH (CaCl2)	----	0.1	pH Unit	7.7	7.7	0.0	0% - 20%
EM2209476-011	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	4.7	4.7	0.0	0% - 20%
<b>EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4358664)</b>									
EM2209044-001	Anonymous	EA055: Moisture Content	----	0.1	%	16.9	13.1	25.3	0% - 50%
EM2209044-011	Anonymous	EA055: Moisture Content	----	0.1	%	11.8	11.6	1.9	0% - 50%
<b>EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4358665)</b>									
EM2209335-002	SX_OB_20220519_07_59_ SS_Primary_ALS	EA055: Moisture Content	----	0.1	%	30.6	29.1	4.9	0% - 20%
EM2209340-001	Anonymous	EA055: Moisture Content	----	0.1	%	32.5	31.6	2.7	0% - 20%
<b>EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4357216)</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_Primary_ALS	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2209335-012	SX_IB_20220520_00_01_S S_Primary_ALS	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
<b>EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 4358654)</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_Primary_ALS	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	2.2	2.8	25.8	No Limit
EM2209335-012	SX_IB_20220520_00_01_S S_Primary_ALS	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	2.4	2.0	15.6	No Limit
<b>EK026SF: Total CN by Segmented Flow Analyser (QC Lot: 4359645)</b>									
EM2209285-010	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit
EM2209335-008	SX_IB_20220519_15_58_S S_Triplicate_ALS	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<5	<5	0.0	No Limit
<b>EK040T: Fluoride Total (QC Lot: 4358630)</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_Primary_ALS	EK040T: Fluoride	16984-48-8	40	mg/kg	300	370	21.2	No Limit
EM2209335-012	SX_IB_20220520_00_01_S S_Primary_ALS	EK040T: Fluoride	16984-48-8	40	mg/kg	300	250	20.9	No Limit
<b>EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4357164)</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_Primary_ALS	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4357164) - continued</b>									
EM2209335-013	SX_OB_20220520_04_06_ SS_Primary_ALS	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
<b>EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 4351190)</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_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
EM2209335-013	SX_OB_20220520_04_06_ 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
<b>EP074H: Naphthalene (QC Lot: 4351190)</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_Primary_ALS	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EM2209335-013	SX_OB_20220520_04_06_ SS_Primary_ALS	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
<b>EP074I: Volatile Halogenated Compounds (QC Lot: 4351190)</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_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
		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: 1,1,1,2,2-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



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 (%)
<b>EP074I: Volatile Halogenated Compounds (QC Lot: 4351190) - continued</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_Primary_ALS	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
EM2209335-013	SX_OB_20220520_04_06_ 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
		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		
<b>EP075A: Phenolic Compounds (Halogenated) (QC Lot: 4357163)</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_Primary_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		
EM2209335-013	SX_OB_20220520_04_06_ SS_Primary_ALS	EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.50	<0.50	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 (%)
<b>EP075A: Phenolic Compounds (Halogenated) (QC Lot: 4357163) - continued</b>									
EM2209335-013	SX_OB_20220520_04_06_ SS_Primary_ALS	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
<b>EP075A: Phenolic Compounds (Non-halogenated) (QC Lot: 4357163)</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_Primary_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
EM2209335-013	SX_OB_20220520_04_06_ SS_Primary_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		
<b>EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4357163)</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_Primary_ALS	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





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 (%)
<b>EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4357163) - continued</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_Primary_ALS	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
EM2209335-013	SX_OB_20220520_04_06_ SS_Primary_ALS	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		
<b>EP075I: Organochlorine Pesticides (QC Lot: 4357163)</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_Primary_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
		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



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 (%)
<b>EP075I: Organochlorine Pesticides (QC Lot: 4357163) - continued</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_Primary_ALS	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		
EM2209335-013	SX_OB_20220520_04_06_ SS_Primary_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
		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		
<b>EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4351190)</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<20	<20	0.0	No Limit
EM2209335-013	SX_OB_20220520_04_06_ SS_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<20	<20	0.0	No Limit
<b>EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4357165)</b>									



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 (%)
<b>EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4357165) - continued</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_Primary_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
EM2209335-013	SX_OB_20220520_04_06_ SS_Primary_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
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4351190)</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_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
EM2209335-013	SX_OB_20220520_04_06_ 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
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4357165)</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_Primary_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
EM2209335-013	SX_OB_20220520_04_06_ SS_Primary_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
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4359436)</b>									
EM2209269-022	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	0.0005	0.0007	29.4	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EM2209335-003	SX_OB_20220519_08_00_ SS_Duplicate_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<5.0 µg/kg	<0.0050	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 (%)
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4359436) - continued</b>									
EM2209335-003	SX_OB_20220519_08_00_ SS_Duplicate_ALS	EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4359436)</b>									
EM2209269-022	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 (PFTTrDA)	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
EM2209335-003	SX_OB_20220519_08_00_ SS_Duplicate_ALS	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
<b>EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4359436)</b>	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



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 (%)
<b>EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4359436) - continued</b>									
EM2209269-022	Anonymous	EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EM2209335-003	SX_OB_20220519_08_00_SS_Duplicate_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4359436)</b>									
EM2209269-022	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
EM2209335-003	SX_OB_20220519_08_00_SS_Duplicate_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
<b>EP231P: PFAS Sums (QC Lot: 4359436)</b>									
EM2209269-022	Anonymous	EP231X: Sum of PFAS	----	0.0002	mg/kg	0.0005	0.0007	33.3	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	0.0005	0.0007	33.3	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	0.0005	0.0007	33.3	No Limit
EM2209335-003	SX_OB_20220519_08_00_SS_Duplicate_ALS	EP231X: Sum of PFAS	----	0.0002	mg/kg	<50.0 µg/kg	<0.0500	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 (%)
<b>EP231P: PFAS Sums (QC Lot: 4359436) - continued</b>									
EM2209335-003	SX_OB_20220519_08_00_SS_Duplicate_ALS	EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<10.0 µg/kg	<0.0100	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 (%)
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4359188)</b>									
EM2209335-004	SX_IB_20220519_08_43_S R_Rinsate_ALS	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

<b>EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4362191)</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_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
EM2209335-013	SX_OB_20220520_04_06_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

<b>EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4362196)</b>									
EM2209335-014	SX_IB_20220519_07_51_S S_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





Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4362196) - continued</b>									
EM2209335-014	SX_IB_20220519_07_51_S S_Primary_ALS	EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EM2209335-024	SX_OB_20220520_04_06_ 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
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4359188)</b>									
EM2209335-004	SX_IB_20220519_08_43_S R_Rinsate_ALS	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
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4362191)</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_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
EM2209335-013	SX_OB_20220520_04_06_ 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



Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4362191) - continued</b>									
EM2209335-013	SX_OB_20220520_04_06_ SS_Primary_ALS	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
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4362196)</b>									
EM2209335-014	SX_IB_20220519_07_51_S S_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
EM2209335-024	SX_OB_20220520_04_06_ 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
<b>EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4359188)</b>									
EM2209335-004	SX_IB_20220519_08_43_S R_Rinsate_ALS	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





Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4359188) - continued</b>									
EM2209335-004	SX_IB_20220519_08_43_S R_Rinsate_ALS	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
<b>EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4362191)</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_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
EM2209335-013	SX_OB_20220520_04_06_ 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
<b>EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4362196)</b>									



Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4362196) - continued</b>									
EM2209335-014	SX_IB_20220519_07_51_S S_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
EM2209335-024	SX_OB_20220520_04_06_ 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
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4359188)</b>									
EM2209335-004	SX_IB_20220519_08_43_S R_Rinsate_ALS	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
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4362191)</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_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



Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4362191) - continued</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_Primary_ALS	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
EM2209335-013	SX_OB_20220520_04_06_ 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
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4362196)</b>									
EM2209335-014	SX_IB_20220519_07_51_S S_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
EM2209335-024	SX_OB_20220520_04_06_ 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
<b>EP231P: PFAS Sums (QC Lot: 4359188)</b>									
EM2209335-004	SX_IB_20220519_08_43_S R_Rinsate_ALS	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
<b>EP231P: PFAS Sums (QC Lot: 4362191)</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_Primary_ALS	EP231X: Sum of PFAS	----	0.01	µg/L	<0.10	<0.10	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 (%)
<b>EP231P: PFAS Sums (QC Lot: 4362191) - continued</b>									
EM2209335-001	SX_IB_20220519_07_51_S S_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	<0.05	<0.05	0.0	No Limit
EM2209335-013	SX_OB_20220520_04_06_ 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
<b>EP231P: PFAS Sums (QC Lot: 4362196)</b>									
EM2209335-014	SX_IB_20220519_07_51_S S_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
EM2209335-024	SX_OB_20220520_04_06_ 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



## 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: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
				Result	Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)	
						LCS	Low	High
<b>EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4357217)</b>								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	106	70.0	130
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	73.6	50.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	111	70.0	130
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	98.4	70.0	130
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	96.8	70.0	130
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	101	70.0	130
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	104	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	94.7	70.0	130
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.33 mg/kg	119	70.0	130
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	90.6	70.0	130
<b>EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel) (QCLot: 4359343)</b>								
EN60-DIa-P: Final pH	----	0.1	pH Unit	7.1	----	----	----	----
<b>EA001: pH in soil using 0.01M CaCl extract (QCLot: 4359993)</b>								
EA001: pH (CaCl2)	----	----	pH Unit	----	4 pH Unit	99.8	98.8	101
					7 pH Unit	99.6	99.3	101
<b>EA001: pH in soil using 0.01M CaCl extract (QCLot: 4359994)</b>								
EA001: pH (CaCl2)	----	----	pH Unit	----	4 pH Unit	101	98.8	101
					7 pH Unit	99.8	99.3	101
<b>EG035T: Total Recoverable Mercury by FIMS (QCLot: 4357216)</b>								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	89.8	70.0	130
<b>EG048G: Hexavalent Chromium (Alkaline Digest) (QCLot: 4358654)</b>								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	84.4	70.0	130
<b>EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4359645)</b>								
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	92.2	70.0	130
<b>EK040T: Fluoride Total (QCLot: 4358630)</b>								
EK040T: Fluoride	16984-48-8	40	mg/kg	<40	400 mg/kg	110	75.2	110
<b>EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4357164)</b>								
EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	97.1	67.4	136
<b>EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4351190)</b>								
EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	2.1 mg/kg	100	69.2	116
EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	2.1 mg/kg	99.2	67.7	116
EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2.1 mg/kg	96.7	66.6	115



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
<b>EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4351190) - continued</b>									
EP074-UT: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	4.2 mg/kg	95.5	65.2	112	
EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	2.1 mg/kg	91.6	69.4	111	
EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2.1 mg/kg	94.7	68.4	110	
<b>EP074H: Naphthalene (QCLot: 4351190)</b>									
EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	0.6 mg/kg	83.1	72.3	114	
<b>EP074I: Volatile Halogenated Compounds (QCLot: 4351190)</b>									
EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.02	0.1 mg/kg	128	47.0	138	
EP074-UT: 1,1-Dichloroethene	75-35-4	0.01	mg/kg	<0.01	0.1 mg/kg	104	57.6	125	
EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.4	2.1 mg/kg	99.6	72.3	115	
EP074-UT: trans-1,2-Dichloroethene	156-60-5	0.02	mg/kg	<0.02	0.1 mg/kg	105	60.5	122	
EP074-UT: cis-1,2-Dichloroethene	156-59-2	0.01	mg/kg	<0.01	0.1 mg/kg	99.2	70.3	112	
EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.02	0.1 mg/kg	95.3	66.6	115	
EP074-UT: 1,1,1-Trichloroethane	71-55-6	0.01	mg/kg	<0.01	0.1 mg/kg	98.6	64.4	122	
EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.01	0.1 mg/kg	98.8	58.4	127	
EP074-UT: 1,2-Dichloroethane	107-06-2	0.02	mg/kg	<0.02	0.1 mg/kg	102	72.9	114	
EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.02	0.1 mg/kg	101	64.7	115	
EP074-UT: 1,1,2-Trichloroethane	79-00-5	0.04	mg/kg	<0.04	0.1 mg/kg	99.4	72.6	116	
EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.02	0.1 mg/kg	102	60.0	119	
EP074-UT: 1,1,1,2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.01	0.1 mg/kg	90.0	71.8	116	
EP074-UT: 1,1,1,2,2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.02	0.1 mg/kg	95.6	66.1	116	
EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.02	0.1 mg/kg	92.0	39.8	128	
EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.02	0.1 mg/kg	96.8	70.3	113	
EP074-UT: 1,4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.02	0.1 mg/kg	95.6	62.6	113	
EP074-UT: 1,2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.02	0.1 mg/kg	95.9	70.8	110	
EP074-UT: 1,2,4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.01	0.1 mg/kg	92.9	48.4	120	
<b>EP075A: Phenolic Compounds (Halogenated) (QCLot: 4357163)</b>									
EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	2 mg/kg	88.0	74.5	126	
EP075-EM: 2,4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	2 mg/kg	86.5	72.7	126	
EP075-EM: 2,6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	2 mg/kg	86.8	73.5	132	
EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	2 mg/kg	88.6	72.8	128	
EP075-EM: 2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	2 mg/kg	87.5	73.3	134	
EP075-EM: 2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	2 mg/kg	85.8	72.4	128	
EP075-EM: 2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	2 mg/kg	84.0	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	90.2	71.9	128	
EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	4 mg/kg	84.0	54.4	135	
<b>EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4357163)</b>									





Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report				
					Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)	
						LCS	Low	High	High
<b>EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4357163) - continued</b>									
EP075-EM: Phenol	108-95-2	1	mg/kg	<1	2 mg/kg	88.7	71.5	130	
EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	2 mg/kg	86.9	73.4	129	
EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	4 mg/kg	88.7	74.3	129	
EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	2 mg/kg	84.8	70.9	133	
EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	2 mg/kg	87.0	71.8	132	
EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	10 mg/kg	63.2	41.0	156	
EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	10 mg/kg	88.5	65.3	134	
EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	10 mg/kg	81.2	43.6	128	
EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	10 mg/kg	83.1	62.0	128	
EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<5	10 mg/kg	77.9	34.5	137	
<b>EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4357163)</b>									
EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	2 mg/kg	86.9	73.0	131	
EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	2 mg/kg	87.3	76.3	130	
EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	2 mg/kg	88.6	72.0	135	
EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	2 mg/kg	89.2	74.4	131	
EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	2 mg/kg	88.4	73.3	130	
EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	2 mg/kg	88.7	78.4	127	
EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	2 mg/kg	89.9	75.3	132	
EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	2 mg/kg	89.6	75.4	130	
EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	2 mg/kg	90.0	69.6	133	
EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	2 mg/kg	91.4	75.0	133	
EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	4 mg/kg	91.4	75.8	133	
EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	2 mg/kg	90.6	65.1	130	
EP075-EM: Indeno(1,2,3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	2 mg/kg	91.6	72.1	134	
EP075-EM: Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	2 mg/kg	91.0	72.9	135	
EP075-EM: Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	2 mg/kg	91.1	71.3	134	
<b>EP075I: Organochlorine Pesticides (QCLot: 4357163)</b>									
EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	2 mg/kg	87.5	71.0	129	
EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	2 mg/kg	86.6	74.8	126	
EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	2 mg/kg	89.2	75.7	130	
EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	2 mg/kg	87.6	70.8	130	
EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	2 mg/kg	88.3	76.5	134	
EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	2 mg/kg	87.6	75.5	131	
EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	2 mg/kg	87.7	76.8	130	
EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	2 mg/kg	87.7	73.6	130	
EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	2 mg/kg	88.7	75.0	133	
EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	2 mg/kg	88.6	75.3	131	
EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	2 mg/kg	81.2	69.4	134	



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
<b>EP075I: Organochlorine Pesticides (QCLot: 4357163) - continued</b>									
EP075-EM: 4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	2 mg/kg	90.0	71.0	132	
EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	2 mg/kg	88.4	78.0	133	
EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	2 mg/kg	88.1	69.0	143	
EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	2 mg/kg	89.3	55.7	145	
EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	2 mg/kg	90.2	71.4	135	
EP075-EM: 4.4'-DDD	72-54-8	0.05	mg/kg	<0.05	2 mg/kg	89.9	74.8	134	
EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.03	2 mg/kg	90.2	70.2	135	
EP075-EM: 4.4'-DDT	50-29-3	0.05	mg/kg	<0.05	2 mg/kg	89.7	77.7	133	
EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	2 mg/kg	91.5	63.6	135	
<b>EP080/071: Total Petroleum Hydrocarbons (QCLot: 4351190)</b>									
EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<10	39.6 mg/kg	95.8	61.1	119	
<b>EP080/071: Total Petroleum Hydrocarbons (QCLot: 4357165)</b>									
EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	670 mg/kg	115	74.4	129	
EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	2860 mg/kg	116	81.0	123	
EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	1490 mg/kg	107	81.8	121	
EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	5020 mg/kg	113	70.0	130	
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4351190)</b>									
EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	48.9 mg/kg	96.8	59.9	119	
EP074-UT: C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	----	----	----	----	
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4357165)</b>									
EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	1000 mg/kg	113	75.4	132	
EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	3770 mg/kg	118	80.8	120	
EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	250 mg/kg	114	73.3	136	
EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	5020 mg/kg	117	70.0	130	
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4359436)</b>									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00111 mg/kg	95.0	72.0	128	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	102	73.0	123	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.0014 mg/kg	68.1	67.0	130	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	115	70.0	132	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	95.4	68.0	136	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00121 mg/kg	106	59.0	134	
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4359436)</b>									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	89.3	71.0	135	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	81.1	69.0	132	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	70.0	132	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.8	71.0	131	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	86.1	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 (%)		Acceptable Limits (%)	
						LCS	Low	High	
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4359436) - continued</b>									
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	88.7	72.0	129	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.5	69.0	133	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	79.8	64.0	136	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	69.0	135	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	84.0	66.0	139	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	112	69.0	133	
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4359436)</b>									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.3	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	99.3	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	105	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	103	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	90.8	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.8	63.0	144	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.4	61.0	139	
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4359436)</b>									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	98.4	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	99.1	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	97.8	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	91.7	70.0	130	
<b>EP231P: PFAS Sums (QCLot: 4359436)</b>									
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: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report				
					Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)	
						LCS	Low	High	
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4359188)</b>									
EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.444 µg/L	99.6	72.0	130	
EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.47 µg/L	85.7	71.0	127	
EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.457 µg/L	79.6	68.0	131	
EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.477 µg/L	91.8	69.0	134	
EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.465 µg/L	93.9	65.0	140	
EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.482 µg/L	90.5	53.0	142	



Sub-Matrix: WATER

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
				Result	Spike	Spike Recovery (%)	Acceptable Limits (%)	
					Concentration	LCS	Low	High
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4362191)</b>								
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	95.1	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	99.2	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	102	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	97.2	53.0	142
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4362196)</b>								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	97.2	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	105	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	104	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	109	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	101	53.0	142
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4359188)</b>								
EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.10	2.5 µg/L	91.3	73.0	129
EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.5 µg/L	91.1	72.0	129
EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.5 µg/L	93.4	72.0	129
EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.5 µg/L	93.8	72.0	130
EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.5 µg/L	86.8	71.0	133
EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.5 µg/L	101	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	97.1	69.0	133
EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.5 µg/L	95.7	72.0	134
EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.5 µg/L	102	65.0	144
EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	1.25 µg/L	101	71.0	132
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4362191)</b>								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	99.6	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	94.1	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	105	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	101	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	108	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	100	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	97.7	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	107	71.0	132
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4362196)</b>								



Sub-Matrix: WATER

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4362196) - continued</b>									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	99.2	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	129	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	93.6	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	104	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	97.3	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	94.7	69.0	130	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	102	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	93.5	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	92.2	72.0	134	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	100	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	104	71.0	132	
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4359188)</b>									
EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.5 µg/L	93.8	67.0	137	
EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	1.25 µg/L	110	68.0	141	
EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	1.25 µg/L	90.7	70.0	130	
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	1.25 µg/L	78.4	70.0	130	
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	1.25 µg/L	102	70.0	130	
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.5 µg/L	104	65.0	136	
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.5 µg/L	102	61.0	135	
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4362191)</b>									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	97.2	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	112	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	104	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	110	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	102	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	101	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	91.5	61.0	135	
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4362196)</b>									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	97.8	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	



Sub-Matrix: WATER

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
				Result	Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)	
					LCS	Low	High	
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4362196) - continued</b>								
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	99.4	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	97.3	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	106	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	94.7	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	104	61.0	135
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4359188)</b>								
EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.469 µg/L	93.9	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	102	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	98.4	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	115	70.0	130
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4362191)</b>								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	96.2	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	86.3	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	103	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	99.4	70.0	130
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4362196)</b>								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	106	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	106	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	104	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	108	70.0	130
<b>EP231P: PFAS Sums (QCLot: 4359188)</b>								
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	----	----	----	----
<b>EP231P: PFAS Sums (QCLot: 4362191)</b>								
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	----	----	----	----
<b>EP231P: PFAS Sums (QCLot: 4362196)</b>								
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: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)	
						LCS	Low	High
<b>EP231P: PFAS Sums (QCLot: 4362196) - continued</b>								
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**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike Concentration	SpikeRecovery(%) MS	Low	High
<b>EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4357217)</b>							
EM2209335-002	SX_OB_20220519_07_59_SS_Primary_ALS	EG005T: Arsenic	7440-38-2	50 mg/kg	107	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	94.9	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	104	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	106	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	97.2	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	105	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	95.0	80.0	120
<b>EG035T: Total Recoverable Mercury by FIMS (QCLot: 4357216)</b>							
EM2209335-002	SX_OB_20220519_07_59_SS_Primary_ALS	EG035T: Mercury	7439-97-6	0.5 mg/kg	77.8	76.0	116
<b>EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4358654)</b>							
EM2209335-002	SX_OB_20220519_07_59_SS_Primary_ALS	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	88.6	58.0	114
EM2209335-002	SX_OB_20220519_07_59_SS_Primary_ALS	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	101	58.0	114
<b>EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4359645)</b>							
EM2209285-012	Anonymous	EK026SF: Total Cyanide	57-12-5	20 mg/kg	111	70.0	130
<b>EK040T: Fluoride Total (QCLot: 4358630)</b>							
EM2209335-002	SX_OB_20220519_07_59_SS_Primary_ALS	EK040T: Fluoride	16984-48-8	400 mg/kg	70.6	70.0	130
<b>EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4357164)</b>							
EM2209335-003	SX_OB_20220519_08_00_SS_Duplicate_ALS	EP066-EM: Total Polychlorinated biphenyls	----	1 mg/kg	96.8	59.6	152
<b>EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4351190)</b>							
EM2209335-002	SX_OB_20220519_07_59_SS_Primary_ALS	EP074-UT: Benzene	71-43-2	2 mg/kg	69.8	53.7	130
		EP074-UT: Toluene	108-88-3	2 mg/kg	74.4	55.1	124
<b>EP074I: Volatile Halogenated Compounds (QCLot: 4351190)</b>							
EM2209335-002	SX_OB_20220519_07_59_SS_Primary_ALS	EP074-UT: 1,1-Dichloroethene	75-35-4	2 mg/kg	48.0	38.4	145
		EP074-UT: Trichloroethene	79-01-6	2 mg/kg	64.9	48.1	128
		EP074-UT: Chlorobenzene	108-90-7	2 mg/kg	70.3	55.5	122
<b>EP075A: Phenolic Compounds (Halogenated) (QCLot: 4357163)</b>							





Sub-Matrix: SOIL

				Matrix Spike (MS) Report			
				Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
<b>EP075A: Phenolic Compounds (Halogenated) (QCLot: 4357163) - continued</b>							
EM2209335-002	SX_OB_20220519_07_59_SS_Primary_ALS	EP075-EM: 2-Chlorophenol	95-57-8	3 mg/kg	98.5	44.0	143
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	3 mg/kg	99.8	41.5	139
		EP075-EM: Pentachlorophenol	87-86-5	3 mg/kg	90.1	10.0	144
<b>EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4357163)</b>							
EM2209335-002	SX_OB_20220519_07_59_SS_Primary_ALS	EP075-EM: Phenol	108-95-2	3 mg/kg	96.0	44.2	134
		EP075-EM: 2-Nitrophenol	88-75-5	3 mg/kg	89.9	34.2	129
<b>EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4357163)</b>							
EM2209335-002	SX_OB_20220519_07_59_SS_Primary_ALS	EP075-EM: Acenaphthene	83-32-9	3 mg/kg	96.0	42.6	138
		EP075-EM: Pyrene	129-00-0	3 mg/kg	101	37.8	152
<b>EP080/071: Total Petroleum Hydrocarbons (QCLot: 4351190)</b>							
EM2209335-002	SX_OB_20220519_07_59_SS_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	28 mg/kg	67.4	42.3	111
<b>EP080/071: Total Petroleum Hydrocarbons (QCLot: 4357165)</b>							
EM2209335-006	SX_IB_20220519_11_57_SS_Primary_ALS	EP071-EM: C10 - C14 Fraction	----	670 mg/kg	111	71.3	126
		EP071-EM: C15 - C28 Fraction	----	2860 mg/kg	111	75.1	123
		EP071-EM: C29 - C36 Fraction	----	1490 mg/kg	103	78.1	120
		EP071-EM: C10 - C36 Fraction (sum)	----	5020 mg/kg	109	70.0	130
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4351190)</b>							
EM2209335-002	SX_OB_20220519_07_59_SS_Primary_ALS	EP074-UT: C6 - C10 Fraction	C6_C10	33 mg/kg	66.3	39.9	109
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4357165)</b>							
EM2209335-006	SX_IB_20220519_11_57_SS_Primary_ALS	EP071-EM: >C10 - C16 Fraction	----	1000 mg/kg	109	71.5	130
		EP071-EM: >C16 - C34 Fraction	----	3770 mg/kg	113	76.9	119
		EP071-EM: >C34 - C40 Fraction	----	250 mg/kg	110	65.3	139
		EP071-EM: >C10 - C40 Fraction (sum)	----	5020 mg/kg	112	70.0	130
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4359436)</b>							
EM2209269-023	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00111 mg/kg	105	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00118 mg/kg	122	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00114 mg/kg	95.3	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	118	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	69.8	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00121 mg/kg	84.2	59.0	134
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4359436)</b>							
EM2209269-023	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	90.7	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	82.1	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	88.5	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	100	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	81.2	69.0	133



Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4359436) - continued</b>							
EM2209269-023	Anonymous	EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	92.0	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	103	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	85.2	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	99.5	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	84.0	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	106	69.0	133
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4359436)</b>							
EM2209269-023	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	97.0	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	93.6	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	98.1	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	90.9	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	103	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	110	61.0	139
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4359436)</b>							
EM2209269-023	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	99.9	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00119 mg/kg	99.8	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	105	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00121 mg/kg	77.1	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4359188)</b>							
EM2209335-005	SX_IB_20220519_08_44_SB_Blank_ALS	EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.444 µg/L	108	72.0	130
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.47 µg/L	85.1	71.0	127
		EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.457 µg/L	89.4	68.0	131
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.477 µg/L	102	69.0	134
		EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.465 µg/L	100	65.0	140
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.482 µg/L	97.8	53.0	142
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4362191)</b>							
EM2209335-002	SX_OB_20220519_07_59_SS_Primary_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	100	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	101	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	97.4	68.0	131



Sub-Matrix: WATER

				Matrix Spike (MS) Report					
				Spike	SpikeRecovery(%)	Acceptable Limits (%)			
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High		
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4362191) - continued</b>									
EM2209335-002	SX_OB_20220519_07_59_SS_Primary_ALS	EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	106	69.0	134		
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	102	65.0	140		
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	99.2	53.0	142		
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4362196)</b>									
EM2209335-015	SX_OB_20220519_07_59_SS_Primary_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	104	72.0	130		
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	99.0	71.0	127		
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	93.8	68.0	131		
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	114	69.0	134		
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	69.7	65.0	140		
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	91.6	53.0	142		
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4359188)</b>									
EM2209335-005	SX_IB_20220519_08_44_SB_Blank_ALS	EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	2.5 µg/L	100	73.0	129		
		EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.5 µg/L	101	72.0	129		
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.5 µg/L	109	72.0	129		
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.5 µg/L	103	72.0	130		
		EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.5 µg/L	103	71.0	133		
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.5 µg/L	112	69.0	130		
		EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.5 µg/L	105	71.0	129		
		EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.5 µg/L	99.6	69.0	133		
		EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.5 µg/L	104	72.0	134		
		EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.5 µg/L	111	65.0	144		
		EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	1.25 µg/L	119	71.0	132		
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4362191)</b>									
EM2209335-002	SX_OB_20220519_07_59_SS_Primary_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	97.7	73.0	129		
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	107	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	106	72.0	130		
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	103	71.0	133		
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	110	69.0	130		
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	107	71.0	129		
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	99.4	69.0	133		
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	99.1	72.0	134		
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	102	65.0	144		
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	114	71.0	132		
		<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4362196)</b>							
		EM2209335-015	SX_OB_20220519_07_59_SS_Primary_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	85.4	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3			0.25 µg/L	94.5	72.0	129		
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4			0.25 µg/L	93.8	72.0	129		





Sub-Matrix: WATER

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4362196) - continued</b>							
EM2209335-015	SX_OB_20220519_07_59_SS_Primary_ALS	EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	101	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	101	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	106	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	101	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	90.4	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	86.2	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	79.8	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	79.5	71.0	132
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4359188)</b>							
EM2209335-005	SX_IB_20220519_08_44_SB_Blank_ALS	EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.5 µg/L	104	67.0	137
		EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	1.25 µg/L	128	68.0	141
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	1.25 µg/L	103	70.0	130
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	1.25 µg/L	84.5	70.0	130
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	1.25 µg/L	118	70.0	130
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.5 µg/L	100	65.0	136
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.5 µg/L	107	61.0	135
		<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4362191)</b>					
EM2209335-002	SX_OB_20220519_07_59_SS_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	104	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	120	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	108	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	102	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	114	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	111	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	99.9	61.0	135
		<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4362196)</b>					
EM2209335-015	SX_OB_20220519_07_59_SS_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	95.2	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	71.9	68.0	141



Sub-Matrix: WATER

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4362196) - continued</b>							
EM2209335-015	SX_OB_20220519_07_59_SS_Primary_ALS	EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	# 64.3	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	83.7	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	76.8	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	70.5	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	79.3	61.0	135
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4359188)</b>							
EM2209335-005	SX_IB_20220519_08_44_SB_Blank_ALS	EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.469 µg/L	97.2	63.0	143
		EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.476 µg/L	121	64.0	140
		EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.48 µg/L	114	67.0	138
		EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.483 µg/L	127	70.0	130
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4362191)</b>							
EM2209335-002	SX_OB_20220519_07_59_SS_Primary_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	110	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	99.3	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	113	70.0	130
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4362196)</b>							
EM2209335-015	SX_OB_20220519_07_59_SS_Primary_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	99.9	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	108	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	95.4	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	84.3	70.0	130

## QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EM2209335	Page	: 1 of 16
Client	: AGON ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: DAVID LAWSON	Telephone	: +61-3-8549 9600
Project	: JC0927	Date Samples Received	: 20-May-2022
Site	: 20220520043942-ALS-52	Issue Date	: 27-May-2022
Sampler	: HK - EP Risk, Martha - Agon	No. of samples received	: 24
Order number	: ----	No. of samples analysed	: 24

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
<b>Matrix Spike (MS) Recoveries</b>							
EP231C: Perfluoroalkyl Sulfonamides	EM2209335--015	SX_OB_20220519_07_59_SS	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	64.3 %	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			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
<b>EA001: pH in soil using 0.01M CaCl extract</b>								
<b>Soil Glass Jar - Unpreserved (EA001)</b> SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS,	19-May-2022	26-May-2022	26-May-2022	✔	26-May-2022	26-May-2022	✔
<b>Soil Glass Jar - Unpreserved (EA001)</b> SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220520_04_06_SS_Primary_ALS	20-May-2022	26-May-2022	27-May-2022	✔	26-May-2022	26-May-2022	✔
<b>EA055: Moisture Content (Dried @ 105-110°C)</b>								
<b>Soil Glass Jar - Unpreserved (EA055)</b> SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS,	19-May-2022	----	----	----	25-May-2022	02-Jun-2022	✔
<b>Soil Glass Jar - Unpreserved (EA055)</b> SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220520_04_06_SS_Primary_ALS	20-May-2022	----	----	----	25-May-2022	03-Jun-2022	✔



Matrix: SOIL

Evaluation: \* = Holding time breach ; ✓ = Within holding time.

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis				
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation		
<b>EG005(ED093)T: Total Metals by ICP-AES</b>									
<b>Soil Glass Jar - Unpreserved (EG005T)</b> SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS,	19-May-2022	25-May-2022	15-Nov-2022	✓	25-May-2022	15-Nov-2022	✓	
<b>Soil Glass Jar - Unpreserved (EG005T)</b> SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220520_04_06_SS_Primary_ALS	20-May-2022	25-May-2022	16-Nov-2022	✓	25-May-2022	16-Nov-2022	✓	
<b>EG035T: Total Recoverable Mercury by FIMS</b>									
<b>Soil Glass Jar - Unpreserved (EG035T)</b> SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS,	19-May-2022	25-May-2022	16-Jun-2022	✓	26-May-2022	16-Jun-2022	✓	
<b>Soil Glass Jar - Unpreserved (EG035T)</b> SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220520_04_06_SS_Primary_ALS	20-May-2022	25-May-2022	17-Jun-2022	✓	26-May-2022	17-Jun-2022	✓	
<b>EG048: Hexavalent Chromium (Alkaline Digest)</b>									
<b>Soil Glass Jar - Unpreserved (EG048G)</b> SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS,	19-May-2022	26-May-2022	16-Jun-2022	✓	27-May-2022	02-Jun-2022	✓	
<b>Soil Glass Jar - Unpreserved (EG048G)</b> SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220520_04_06_SS_Primary_ALS	20-May-2022	26-May-2022	17-Jun-2022	✓	27-May-2022	02-Jun-2022	✓	
<b>EK026SF: Total CN by Segmented Flow Analyser</b>									
<b>Soil Glass Jar - Unpreserved (EK026SF)</b> SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS,	19-May-2022	25-May-2022	02-Jun-2022	✓	26-May-2022	08-Jun-2022	✓	
<b>Soil Glass Jar - Unpreserved (EK026SF)</b> SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220520_04_06_SS_Primary_ALS	20-May-2022	25-May-2022	03-Jun-2022	✓	26-May-2022	08-Jun-2022	✓	



Matrix: SOIL

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Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
<b>EK040T: Fluoride Total</b>								
<b>Soil Glass Jar - Unpreserved (EK040T)</b> SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_07_59_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS, SX_IB_20220519_20_10_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS	19-May-2022	25-May-2022	16-Jun-2022	✓	27-May-2022	16-Jun-2022	✓
<b>Soil Glass Jar - Unpreserved (EK040T)</b> SX_IB_20220520_00_01_SS_Primary_ALS, SX_OB_20220520_04_06_SS_Primary_ALS		20-May-2022	25-May-2022	17-Jun-2022	✓	27-May-2022	17-Jun-2022	✓
<b>EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>								
<b>Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P)</b> SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_07_59_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS, SX_IB_20220519_20_10_SS_Primary_ALS		19-May-2022	25-May-2022	15-Nov-2022	✓	----	----	----
<b>Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P)</b> SX_IB_20220520_00_01_SS_Primary_ALS, SX_OB_20220520_04_06_SS_Primary_ALS		20-May-2022	25-May-2022	16-Nov-2022	✓	----	----	----
<b>EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>								
<b>Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)</b> SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_07_59_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS, SX_IB_20220519_20_10_SS_Primary_ALS		19-May-2022	25-May-2022	15-Nov-2022	✓	----	----	----
<b>Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)</b> SX_IB_20220520_00_01_SS_Primary_ALS, SX_OB_20220520_04_06_SS_Primary_ALS		20-May-2022	25-May-2022	16-Nov-2022	✓	----	----	----
<b>EP066: Polychlorinated Biphenyls (PCB)</b>								
<b>Soil Glass Jar - Unpreserved (EP066-EM)</b> SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_07_59_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS, SX_IB_20220519_20_10_SS_Primary_ALS		19-May-2022	25-May-2022	02-Jun-2022	✓	25-May-2022	04-Jul-2022	✓
<b>Soil Glass Jar - Unpreserved (EP066-EM)</b> SX_IB_20220520_00_01_SS_Primary_ALS, SX_OB_20220520_04_06_SS_Primary_ALS		20-May-2022	25-May-2022	03-Jun-2022	✓	25-May-2022	04-Jul-2022	✓



Matrix: SOIL

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Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
<b>EP074A: Monocyclic Aromatic Hydrocarbons</b>								
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_IB_20220519_07_51_SS_Primary_ALS, SX_IB_20220519_08_00_SS_Duplicate_ALS, SX_IB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS,	19-May-2022	21-May-2022	26-May-2022	✓	23-May-2022	26-May-2022	✓
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220520_04_06_SS_Primary_ALS	20-May-2022	21-May-2022	27-May-2022	✓	23-May-2022	27-May-2022	✓
<b>EP074H: Naphthalene</b>								
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_IB_20220519_07_51_SS_Primary_ALS, SX_IB_20220519_08_00_SS_Duplicate_ALS, SX_IB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS,	19-May-2022	21-May-2022	26-May-2022	✓	23-May-2022	26-May-2022	✓
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220520_04_06_SS_Primary_ALS	20-May-2022	21-May-2022	27-May-2022	✓	23-May-2022	27-May-2022	✓
<b>EP074I: Volatile Halogenated Compounds</b>								
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_IB_20220519_07_51_SS_Primary_ALS, SX_IB_20220519_08_00_SS_Duplicate_ALS, SX_IB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS,	19-May-2022	21-May-2022	26-May-2022	✓	23-May-2022	26-May-2022	✓
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220520_04_06_SS_Primary_ALS	20-May-2022	21-May-2022	27-May-2022	✓	23-May-2022	27-May-2022	✓
<b>EP075A: Phenolic Compounds (Halogenated)</b>								
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b> SX_IB_20220519_07_51_SS_Primary_ALS, SX_IB_20220519_08_00_SS_Duplicate_ALS, SX_IB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS,	19-May-2022	25-May-2022	02-Jun-2022	✓	25-May-2022	04-Jul-2022	✓
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b> SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220520_04_06_SS_Primary_ALS	20-May-2022	25-May-2022	03-Jun-2022	✓	25-May-2022	04-Jul-2022	✓





Matrix: SOIL

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Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
<b>EP075A: Phenolic Compounds (Non-halogenated)</b>								
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b>								
SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS,	19-May-2022	25-May-2022	02-Jun-2022	✓	25-May-2022	04-Jul-2022	✓
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b>								
SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220520_04_06_SS_Primary_ALS	20-May-2022	25-May-2022	03-Jun-2022	✓	25-May-2022	04-Jul-2022	✓
<b>EP075B: Polynuclear Aromatic Hydrocarbons</b>								
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b>								
SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS,	19-May-2022	25-May-2022	02-Jun-2022	✓	25-May-2022	04-Jul-2022	✓
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b>								
SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220520_04_06_SS_Primary_ALS	20-May-2022	25-May-2022	03-Jun-2022	✓	25-May-2022	04-Jul-2022	✓
<b>EP075I: Organochlorine Pesticides</b>								
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b>								
SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS,	19-May-2022	25-May-2022	02-Jun-2022	✓	25-May-2022	04-Jul-2022	✓
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b>								
SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220520_04_06_SS_Primary_ALS	20-May-2022	25-May-2022	03-Jun-2022	✓	25-May-2022	04-Jul-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	
<b>EP080/071: Total Petroleum Hydrocarbons</b>								
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS,	19-May-2022	21-May-2022	26-May-2022	✓	23-May-2022	26-May-2022	✓
<b>Soil Glass Jar - Unpreserved (EP071-EM)</b> SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS,	19-May-2022	25-May-2022	02-Jun-2022	✓	25-May-2022	04-Jul-2022	✓
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220520_04_06_SS_Primary_ALS	20-May-2022	21-May-2022	27-May-2022	✓	23-May-2022	27-May-2022	✓
<b>Soil Glass Jar - Unpreserved (EP071-EM)</b> SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220520_04_06_SS_Primary_ALS	20-May-2022	25-May-2022	03-Jun-2022	✓	25-May-2022	04-Jul-2022	✓
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions</b>								
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS,	19-May-2022	21-May-2022	26-May-2022	✓	23-May-2022	26-May-2022	✓
<b>Soil Glass Jar - Unpreserved (EP071-EM)</b> SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS,	19-May-2022	25-May-2022	02-Jun-2022	✓	25-May-2022	04-Jul-2022	✓
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220520_04_06_SS_Primary_ALS	20-May-2022	21-May-2022	27-May-2022	✓	23-May-2022	27-May-2022	✓
<b>Soil Glass Jar - Unpreserved (EP071-EM)</b> SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220520_04_06_SS_Primary_ALS	20-May-2022	25-May-2022	03-Jun-2022	✓	25-May-2022	04-Jul-2022	✓
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
<b>HDPE Soil Jar (EP231X)</b> SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS,	19-May-2022	25-May-2022	15-Nov-2022	✓	25-May-2022	04-Jul-2022	✓
<b>HDPE Soil Jar (EP231X)</b> SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220520_04_06_SS_Primary_ALS	20-May-2022	25-May-2022	16-Nov-2022	✓	25-May-2022	04-Jul-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	
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
<b>HDPE Soil Jar (EP231X)</b> SX_IB_20220519_07_51_SS_Primary_ALS, SX_IB_20220519_08_00_SS_Duplicate_ALS, SX_IB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS,	19-May-2022	25-May-2022	15-Nov-2022	✓	25-May-2022	04-Jul-2022	✓
<b>HDPE Soil Jar (EP231X)</b> SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220520_04_06_SS_Primary_ALS	20-May-2022	25-May-2022	16-Nov-2022	✓	25-May-2022	04-Jul-2022	✓
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
<b>HDPE Soil Jar (EP231X)</b> SX_IB_20220519_07_51_SS_Primary_ALS, SX_IB_20220519_08_00_SS_Duplicate_ALS, SX_IB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS,	19-May-2022	25-May-2022	15-Nov-2022	✓	25-May-2022	04-Jul-2022	✓
<b>HDPE Soil Jar (EP231X)</b> SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220520_04_06_SS_Primary_ALS	20-May-2022	25-May-2022	16-Nov-2022	✓	25-May-2022	04-Jul-2022	✓
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								
<b>HDPE Soil Jar (EP231X)</b> SX_IB_20220519_07_51_SS_Primary_ALS, SX_IB_20220519_08_00_SS_Duplicate_ALS, SX_IB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS,	19-May-2022	25-May-2022	15-Nov-2022	✓	25-May-2022	04-Jul-2022	✓
<b>HDPE Soil Jar (EP231X)</b> SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220520_04_06_SS_Primary_ALS	20-May-2022	25-May-2022	16-Nov-2022	✓	25-May-2022	04-Jul-2022	✓
<b>EP231P: PFAS Sums</b>								
<b>HDPE Soil Jar (EP231X)</b> SX_IB_20220519_07_51_SS_Primary_ALS, SX_IB_20220519_08_00_SS_Duplicate_ALS, SX_IB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS,	19-May-2022	25-May-2022	15-Nov-2022	✓	25-May-2022	04-Jul-2022	✓
<b>HDPE Soil Jar (EP231X)</b> SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220520_04_06_SS_Primary_ALS	20-May-2022	25-May-2022	16-Nov-2022	✓	25-May-2022	04-Jul-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



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	
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
<b>HDPE (no PTFE) (EP231X-INJ)</b> SX_IB_20220519_08_43_SR_Rinsate_ALS,	SX_IB_20220519_08_44_SB_Blank_ALS	19-May-2022	25-May-2022	15-Nov-2022	✓	25-May-2022	15-Nov-2022	✓
<b>HDPE (no PTFE) (EP231X)</b> SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS, SX_OB_20220520_04_06_SS_Primary_ALS, SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS, SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS, SX_IB_20220520_00_01_SS_Primary_ALS, SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS, SX_OB_20220520_04_06_SS_Primary_ALS	25-May-2022	26-May-2022	21-Nov-2022	✓	26-May-2022	21-Nov-2022	✓
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
<b>HDPE (no PTFE) (EP231X-INJ)</b> SX_IB_20220519_08_43_SR_Rinsate_ALS,	SX_IB_20220519_08_44_SB_Blank_ALS	19-May-2022	25-May-2022	15-Nov-2022	✓	25-May-2022	15-Nov-2022	✓
<b>HDPE (no PTFE) (EP231X)</b> SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS, SX_OB_20220520_04_06_SS_Primary_ALS, SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS, SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS, SX_IB_20220520_00_01_SS_Primary_ALS, SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS, SX_OB_20220520_04_06_SS_Primary_ALS	25-May-2022	26-May-2022	21-Nov-2022	✓	26-May-2022	21-Nov-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	
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
<b>HDPE (no PTFE) (EP231X-INJ)</b>								
SX_IB_20220519_08_43_SR_Rinsate_ALS,	SX_IB_20220519_08_44_SB_Blank_ALS	19-May-2022	25-May-2022	15-Nov-2022	✓	25-May-2022	15-Nov-2022	✓
<b>HDPE (no PTFE) (EP231X)</b>								
SX_IB_20220519_07_51_SS_Primary_ALS, SX_IB_20220519_08_00_SS_Duplicate_ALS, SX_IB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS, SX_IB_20220520_04_06_SS_Primary_ALS, SX_IB_20220519_07_51_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS, SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS, SX_IB_20220520_00_01_SS_Primary_ALS, SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_OB_20220519_16_07_SS_Primary_ALS, SX_OB_20220519_20_10_SS_Primary_ALS, SX_OB_20220520_04_06_SS_Primary_ALS	25-May-2022	26-May-2022	21-Nov-2022	✓	26-May-2022	21-Nov-2022	✓
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								
<b>HDPE (no PTFE) (EP231X-INJ)</b>								
SX_IB_20220519_08_43_SR_Rinsate_ALS,	SX_IB_20220519_08_44_SB_Blank_ALS	19-May-2022	25-May-2022	15-Nov-2022	✓	25-May-2022	15-Nov-2022	✓
<b>HDPE (no PTFE) (EP231X)</b>								
SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS, SX_OB_20220520_04_06_SS_Primary_ALS, SX_OB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS, SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS, SX_IB_20220520_00_01_SS_Primary_ALS, SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_OB_20220519_16_07_SS_Primary_ALS, SX_OB_20220519_20_10_SS_Primary_ALS, SX_OB_20220520_04_06_SS_Primary_ALS	25-May-2022	26-May-2022	21-Nov-2022	✓	26-May-2022	21-Nov-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	
<b>EP231P: PFAS Sums</b>								
<b>HDPE (no PTFE) (EP231X-INJ)</b>								
SX_IB_20220519_08_43_SR_Rinsate_ALS,	SX_IB_20220519_08_44_SB_Blank_ALS	19-May-2022	25-May-2022	15-Nov-2022	✓	25-May-2022	15-Nov-2022	✓
<b>HDPE (no PTFE) (EP231X)</b>								
SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS, SX_OB_20220520_04_06_SS_Primary_ALS, SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS, SX_IB_20220520_00_01_SS_Primary_ALS,	SX_OB_20220519_07_59_SS_Primary_ALS, SX_IB_20220519_11_57_SS_Primary_ALS, SX_IB_20220519_15_58_SS_Triplicate_ALS, SX_IB_20220519_20_06_SS_Triplicate_ALS, SX_IB_20220520_00_01_SS_Primary_ALS, SX_IB_20220519_07_51_SS_Primary_ALS, SX_OB_20220519_08_00_SS_Duplicate_ALS, SX_OB_20220519_15_49_SS_Primary_ALS, SX_IB_20220519_16_07_SS_Primary_ALS, SX_IB_20220519_20_10_SS_Primary_ALS, SX_OB_20220520_04_06_SS_Primary_ALS	25-May-2022	26-May-2022	21-Nov-2022	✓	26-May-2022	21-Nov-2022	✓



## Quality Control Parameter Frequency Compliance

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

Matrix: **SOIL**

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

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Reaular	Actual	Expected	Evaluation	
<b>Laboratory Duplicates (DUP)</b>							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Moisture Content	EA055	4	40	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	2	11	18.18	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	4	40	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	2	11	18.18	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	20	10.00	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	3	20	15.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	2	11	18.18	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	2	11	18.18	10.00	✓	NEPM 2013 B3 & ALS QC Standard
<b>Laboratory Control Samples (LCS)</b>							
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	11	9.09	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	4	40	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	11	9.09	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	20	5.00	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	11	9.09	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	11	9.09	5.00	✓	NEPM 2013 B3 & ALS QC Standard
<b>Method Blanks (MB)</b>							
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	11	9.09	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	11	9.09	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	20	5.00	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	11	9.09	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	11	9.09	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	Method	Count		Rate (%)			Quality Control Specification
		QC	Reular	Actual	Expected	Evaluation	
<b>Analytical Methods</b>							
<b>Matrix Spikes (MS)</b>							
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	11	9.09	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	11	9.09	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	20	5.00	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	11	9.09	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	11	9.09	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	Method	Count		Rate (%)			Quality Control Specification
		QC	Reular	Actual	Expected	Evaluation	
<b>Analytical Methods</b>							
<b>Laboratory Duplicates (DUP)</b>							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	22	18.18	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	5	20.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
<b>Laboratory Control Samples (LCS)</b>							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	22	9.09	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
<b>Method Blanks (MB)</b>							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	22	9.09	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
<b>Matrix Spikes (MS)</b>							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	22	9.09	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	5	20.00	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 CaCl <sub>2</sub> 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 CaCl <sub>2</sub> 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 (SnCl <sub>2</sub> ) (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 SnCl <sub>2</sub> 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-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 CaCl <sub>2</sub> extract	EA001-PR	SOIL	In house: Referenced to Rayment and Lyons 4B1, 10 g of soil is mixed with 50 mL of 0.01M CaCl <sub>2</sub> 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, Na <sub>2</sub> SO <sub>4</sub> 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.



<i>Preparation Methods</i>	<i>Method</i>	<i>Matrix</i>	<i>Method Descriptions</i>
QuEChERS 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.



## CERTIFICATE OF ANALYSIS

**Work Order** : **EM2209419**  
**Client** : **AGON ENVIRONMENTAL PTY LTD**  
**Contact** : DAVID LAWSON  
**Address** : D1.1 63-85 TURNER STREET  
 PORT MELBOURNE 3207  
  
**Telephone** : ----  
**Project** : JC0927  
**Order number** : ----  
**C-O-C number** : 20220521145702-ALS-56  
**Sampler** : ES, TG  
**Site** : 20220521145702-ALS-56  
**Quote number** : EN/150/19 -WGTP -Bulk Sample Quote  
**No. of samples received** : 20  
**No. of samples analysed** : 20

**Page** : 1 of 29  
**Laboratory** : Environmental Division Melbourne  
**Contact** : Josh Alexander  
**Address** : 4 Westall Rd Springvale VIC Australia 3171  
  
**Telephone** : +61-3-8549 9600  
**Date Samples Received** : 21-May-2022 09:56  
**Date Analysis Commenced** : 23-May-2022  
**Issue Date** : 30-May-2022 21:16



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.

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Dilani Fernando	Laboratory Coordinator	Melbourne Inorganics, Springvale, VIC
Jarwis Nheu	Senior Inorganic Chemist	Melbourne Inorganics, Springvale, VIC
Nancy Wang	2IC Organic Chemist	Melbourne Inorganics, Springvale, VIC
Nancy Wang	2IC Organic Chemist	Melbourne Organics, Springvale, VIC
Nikki Stepniewski	Senior Inorganic Instrument 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 Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.  
LOR = Limit of reporting  
^ = This result is computed from individual analyte detections at or above the level of reporting  
ø = ALS is not NATA accredited for these tests.  
~ = Indicates an estimated value.

- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a,h)anthracene (1.0), Benzo(g,h,i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- 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.
- EG005-T : EM2209318 #26 Poor duplicate precision for total Lead due to sample matrix. Confirmed by re-digestion and re-analysis
- 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_20220520_08_32_SS_Primary_ALS	SX_OB_20220520_08_34_SS_Duplicate_ALS	SX_OB_20220520_12_10_SS_Primary_ALS	SX_OB_20220520_16_34_SS_Triplicate_ALS	SX_IB_20220520_16_38_SS_Primary_ALS
Sampling date / time				20-May-2022 08:32	20-May-2022 08:34	20-May-2022 12:10	20-May-2022 16:34	20-May-2022 16:38
Compound	CAS Number	LOR	Unit	EM2209419-001	EM2209419-002	EM2209419-005	EM2209419-006	EM2209419-007
				Result	Result	Result	Result	Result
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
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
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
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
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
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_20220520_08_32_SS_Primary_ALS	SX_OB_20220520_08_34_SS_Duplicate_ALS	SX_OB_20220520_12_10_SS_Primary_ALS	SX_OB_20220520_16_34_SS_Triplicate_ALS	SX_IB_20220520_16_38_SS_Primary_ALS
Sampling date / time				20-May-2022 08:32	20-May-2022 08:34	20-May-2022 12:10	20-May-2022 16:34	20-May-2022 16:38
Compound	CAS Number	LOR	Unit	EM2209419-001	EM2209419-002	EM2209419-005	EM2209419-006	EM2209419-007
				Result	Result	Result	Result	Result
<b>EP231C: Perfluoroalkyl Sulfonamides - Continued</b>								
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
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								
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
<b>EP231P: PFAS Sums</b>								
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
<b>EP231S: PFAS Surrogate</b>								
13C4-PFOS	----	0.02	%	89.0	99.8	128	102	96.7
13C8-PFOA	----	0.02	%	96.1	95.2	113	94.9	95.5



## Analytical Results

Sub-Matrix: ASLP LEACHATE  
 (Matrix: WATER)

Sample ID

				SX_OB_20220520_16_43_SS_Primary_ALS	SX_OB_20220520_20_06_SS_Primary_ALS	SX_OB_20220520_23_59_SS_Primary_ALS	SX_OB_20220521_04_06_SS_Primary_ALS	----
Sampling date / time				20-May-2022 16:43	20-May-2022 20:06	20-May-2022 23:59	21-May-2022 04:06	----
Compound	CAS Number	LOR	Unit	EM2209419-008	EM2209419-009	EM2209419-010	EM2209419-011	-----
				Result	Result	Result	Result	----
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<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	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<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	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<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	----
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<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	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<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	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<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	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<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	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<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	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<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	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----



## Analytical Results

Sub-Matrix: ASLP LEACHATE (Matrix: WATER)				Sample ID	SX_OB_20220520_16_43_SS_Primary_ALS	SX_OB_20220520_20_06_SS_Primary_ALS	SX_OB_20220520_23_59_SS_Primary_ALS	SX_OB_20220521_04_06_SS_Primary_ALS	----
Sampling date / time				20-May-2022 16:43	20-May-2022 20:06	20-May-2022 23:59	21-May-2022 04:06	----	
Compound	CAS Number	LOR	Unit	EM2209419-008	EM2209419-009	EM2209419-010	EM2209419-011	-----	
				Result	Result	Result	Result	----	
<b>EP231C: Perfluoroalkyl Sulfonamides - Continued</b>									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<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	----	
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<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	----	
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<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	----	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<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	----	
<b>EP231P: PFAS Sums</b>									
Sum of PFAS	----	0.10	µg/L	<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	----	
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----	
<b>EP231S: PFAS Surrogate</b>									
13C4-PFOS	----	0.02	%	93.7	92.1	99.0	94.3	----	
13C8-PFOA	----	0.02	%	95.2	93.0	96.4	93.3	----	



## Analytical Results

Sub-Matrix: DI WATER LEACHATE  
 (Matrix: WATER)

Sample ID

				SX_OB_20220520_08_32_SS_Primary_ALS	SX_OB_20220520_08_34_SS_Duplicate_ALS	SX_OB_20220520_12_10_SS_Primary_ALS	SX_OB_20220520_16_34_SS_Triplicate_ALS	SX_IB_20220520_16_38_SS_Primary_ALS
Sampling date / time				20-May-2022 08:32	20-May-2022 08:34	20-May-2022 12:10	20-May-2022 16:34	20-May-2022 16:38
Compound	CAS Number	LOR	Unit	EM2209419-012	EM2209419-013	EM2209419-014	EM2209419-015	EM2209419-016
				Result	Result	Result	Result	Result
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
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
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
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
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
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_20220520_08_32_SS_Primary_ALS	SX_OB_20220520_08_34_SS_Duplicate_ALS	SX_OB_20220520_12_10_SS_Primary_ALS	SX_OB_20220520_16_34_SS_Triplicate_ALS	SX_IB_20220520_16_38_SS_Primary_ALS
Sampling date / time				20-May-2022 08:32	20-May-2022 08:34	20-May-2022 12:10	20-May-2022 16:34	20-May-2022 16:38
Compound	CAS Number	LOR	Unit	EM2209419-012	EM2209419-013	EM2209419-014	EM2209419-015	EM2209419-016
				Result	Result	Result	Result	Result
<b>EP231C: Perfluoroalkyl Sulfonamides - Continued</b>								
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
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								
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
<b>EP231P: PFAS Sums</b>								
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
<b>EP231S: PFAS Surrogate</b>								
13C4-PFOS	----	0.02	%	97.8	87.8	89.6	90.3	90.6
13C8-PFOA	----	0.02	%	89.5	93.6	90.1	92.2	96.2



## Analytical Results

Sub-Matrix: DI WATER LEACHATE  
 (Matrix: WATER)

Sample ID

				SX_OB_20220520_16_43_SS_Primary_ALS	SX_OB_20220520_20_06_SS_Primary_ALS	SX_OB_20220520_23_59_SS_Primary_ALS	SX_OB_20220521_04_06_SS_Primary_ALS	----
Sampling date / time				20-May-2022 16:43	20-May-2022 20:06	20-May-2022 23:59	21-May-2022 04:06	----
Compound	CAS Number	LOR	Unit	EM2209419-017	EM2209419-018	EM2209419-019	EM2209419-020	-----
				Result	Result	Result	Result	----
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<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	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<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	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<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	----
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<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	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<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	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<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	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<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	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<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	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<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	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----





## Analytical Results

Sub-Matrix: DI WATER LEACHATE  
 (Matrix: WATER)

Sample ID

				SX_OB_20220520_16_43_SS_Primary_ALS	SX_OB_20220520_20_06_SS_Primary_ALS	SX_OB_20220520_23_59_SS_Primary_ALS	SX_OB_20220521_04_06_SS_Primary_ALS	----
Sampling date / time				20-May-2022 16:43	20-May-2022 20:06	20-May-2022 23:59	21-May-2022 04:06	----
Compound	CAS Number	LOR	Unit	EM2209419-017	EM2209419-018	EM2209419-019	EM2209419-020	-----
				Result	Result	Result	Result	----
<b>EP231C: Perfluoroalkyl Sulfonamides - Continued</b>								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<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	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<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	----
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<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	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<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	----
<b>EP231P: PFAS Sums</b>								
Sum of PFAS	----	0.10	µg/L	<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	----
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
<b>EP231S: PFAS Surrogate</b>								
13C4-PFOS	----	0.02	%	92.5	70.4	65.1	73.7	----
13C8-PFOA	----	0.02	%	88.4	73.6	74.3	73.9	----



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220520_08_32_SS_Primary_ALS	SX_OB_20220520_08_34_SS_Duplicate_ALS	SX_OB_20220520_12_10_SS_Primary_ALS	SX_OB_20220520_16_34_SS_Triplicate_ALS	SX_IB_20220520_16_38_SS_Primary_ALS
Sampling date / time				20-May-2022 08:32	20-May-2022 08:34	20-May-2022 12:10	20-May-2022 16:34	20-May-2022 16:38
Compound	CAS Number	LOR	Unit	EM2209419-001	EM2209419-002	EM2209419-005	EM2209419-006	EM2209419-007
				Result	Result	Result	Result	Result
<b>EA001: pH in soil using 0.01M CaCl extract</b>								
pH (CaCl <sub>2</sub> )	----	0.1	pH Unit	7.9	7.8	7.9	7.7	7.8
<b>EA055: Moisture Content (Dried @ 105-110°C)</b>								
Moisture Content	----	1.0	%	28.3	25.0	32.3	30.4	28.5
<b>EG005(ED093)T: Total Metals by ICP-AES</b>								
Arsenic	7440-38-2	5	mg/kg	42	49	42	18	32
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	5	mg/kg	73	72	93	94	104
Copper	7440-50-8	5	mg/kg	48	53	62	59	55
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	129	123	138	144	155
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	76	77	95	92	94
<b>EG035T: Total Recoverable Mercury by FIMS</b>								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
<b>EG048: Hexavalent Chromium (Alkaline Digest)</b>								
Hexavalent Chromium	18540-29-9	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
<b>EK026SF: Total CN by Segmented Flow Analyser</b>								
Total Cyanide	57-12-5	5	mg/kg	<5	<5	<5	<5	<5
<b>EK040T: Fluoride Total</b>								
Fluoride	16984-48-8	100	mg/kg	190	200	200	170	280
<b>EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>								
Initial pH	----	0.1	pH Unit	8.9	8.9	8.6	8.5	9.3
After HCl pH	----	0.1	pH Unit	1.6	1.6	1.6	1.6	1.6
Extraction Fluid pH	----	0.1	pH Unit	5.0	5.0	5.0	5.0	5.0
Final pH	----	0.1	pH Unit	5.2	5.1	5.1	0.1	5.2
<b>EP066: Polychlorinated Biphenyls (PCB)</b>								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
<b>EP074A: Monocyclic Aromatic Hydrocarbons</b>								
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_20220520_08_32_SS_Primary_ALS	SX_OB_20220520_08_34_SS_Duplicate_ALS	SX_OB_20220520_12_10_SS_Primary_ALS	SX_OB_20220520_16_34_SS_Triplicate_ALS	SX_IB_20220520_16_38_SS_Primary_ALS
Sampling date / time				20-May-2022 08:32	20-May-2022 08:34	20-May-2022 12:10	20-May-2022 16:34	20-May-2022 16:38
Compound	CAS Number	LOR	Unit	EM2209419-001	EM2209419-002	EM2209419-005	EM2209419-006	EM2209419-007
				Result	Result	Result	Result	Result
<b>EP074A: Monocyclic Aromatic Hydrocarbons - Continued</b>								
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
<b>EP074H: Naphthalene</b>								
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
<b>EP074I: Volatile Halogenated Compounds</b>								
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
<b>EP075A: Phenolic Compounds (Halogenated)</b>								



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220520_08_32_SS_Primary_ALS	SX_OB_20220520_08_34_SS_Duplicate_ALS	SX_OB_20220520_12_10_SS_Primary_ALS	SX_OB_20220520_16_34_SS_Triplicate_ALS	SX_IB_20220520_16_38_SS_Primary_ALS
Sampling date / time				20-May-2022 08:32	20-May-2022 08:34	20-May-2022 12:10	20-May-2022 16:34	20-May-2022 16:38
Compound	CAS Number	LOR	Unit	EM2209419-001	EM2209419-002	EM2209419-005	EM2209419-006	EM2209419-007
				Result	Result	Result	Result	Result
<b>EP075A: Phenolic Compounds (Halogenated) - Continued</b>								
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
<b>EP075A: Phenolic Compounds (Non-halogenated)</b>								
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
<b>EP075B: Polynuclear Aromatic Hydrocarbons</b>								
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_20220520_08_32_SS_Primary_ALS	SX_OB_20220520_08_34_SS_Duplicate_ALS	SX_OB_20220520_12_10_SS_Primary_ALS	SX_OB_20220520_16_34_SS_Triplicate_ALS	SX_IB_20220520_16_38_SS_Primary_ALS
Sampling date / time				20-May-2022 08:32	20-May-2022 08:34	20-May-2022 12:10	20-May-2022 16:34	20-May-2022 16:38
Compound	CAS Number	LOR	Unit	EM2209419-001	EM2209419-002	EM2209419-005	EM2209419-006	EM2209419-007
				Result	Result	Result	Result	Result
<b>EP075B: Polynuclear Aromatic Hydrocarbons - Continued</b>								
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	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>
<b>EP075I: Organochlorine Pesticides</b>								
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_20220520_08_32_SS_Primary_ALS	SX_OB_20220520_08_34_SS_Duplicate_ALS	SX_OB_20220520_12_10_SS_Primary_ALS	SX_OB_20220520_16_34_SS_Triplicate_ALS	SX_IB_20220520_16_38_SS_Primary_ALS
Sampling date / time				20-May-2022 08:32	20-May-2022 08:34	20-May-2022 12:10	20-May-2022 16:34	20-May-2022 16:38
Compound	CAS Number	LOR	Unit	EM2209419-001	EM2209419-002	EM2209419-005	EM2209419-006	EM2209419-007
				Result	Result	Result	Result	Result
<b>EP075I: Organochlorine Pesticides - Continued</b>								
^ 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	72-54-8/72-55-9/5 0-2	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
<b>EP080/071: Total Petroleum Hydrocarbons</b>								
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
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions</b>								
>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
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
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_20220520_08_32_SS_Primary_ALS	SX_OB_20220520_08_34_SS_Duplicate_ALS	SX_OB_20220520_12_10_SS_Primary_ALS	SX_OB_20220520_16_34_SS_Triplicate_ALS	SX_IB_20220520_16_38_SS_Primary_ALS
Sampling date / time				20-May-2022 08:32	20-May-2022 08:34	20-May-2022 12:10	20-May-2022 16:34	20-May-2022 16:38
Compound	CAS Number	LOR	Unit	EM2209419-001	EM2209419-002	EM2209419-005	EM2209419-006	EM2209419-007
				Result	Result	Result	Result	Result
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
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
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
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
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								





## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220520_08_32_SS_Primary_ALS	SX_OB_20220520_08_34_SS_Duplicate_ALS	SX_OB_20220520_12_10_SS_Primary_ALS	SX_OB_20220520_16_34_SS_Triplicate_ALS	SX_IB_20220520_16_38_SS_Primary_ALS
Sampling date / time				20-May-2022 08:32	20-May-2022 08:34	20-May-2022 12:10	20-May-2022 16:34	20-May-2022 16:38
Compound	CAS Number	LOR	Unit	EM2209419-001	EM2209419-002	EM2209419-005	EM2209419-006	EM2209419-007
				Result	Result	Result	Result	Result
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued</b>								
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
<b>EP231P: PFAS Sums</b>								
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
<b>EP066S: PCB Surrogate</b>								
Decachlorobiphenyl	2051-24-3	0.1	%	102	110	98.4	120	112
<b>EP074S: VOC Surrogates (Ultra-Trace)</b>								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	71.6	86.5	78.7	65.5	84.3
Toluene-D8	2037-26-5	0.1	%	61.2	75.2	71.2	55.1	75.1
4-Bromofluorobenzene	460-00-4	0.1	%	76.5	82.2	81.4	73.3	80.9
<b>EP075S: Acid Extractable Surrogates (Waste Classification)</b>								
Phenol-d6	13127-88-3	0.025	%	95.4	108	104	117	110
2-Chlorophenol-D4	93951-73-6	0.025	%	90.2	99.5	96.0	110	104
2,4,6-Tribromophenol	118-79-6	0.025	%	89.2	100	89.4	115	106
<b>EP075T: Base/Neutral Extractable Surrogates (Waste Classification)</b>								
Nitrobenzene-D5	4165-60-0	0.025	%	90.7	107	95.6	115	108
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	83.3	98.4	88.6	101	103
2-Fluorobiphenyl	321-60-8	0.025	%	91.5	106	95.6	117	110
Anthracene-d10	1719-06-8	0.025	%	96.1	109	98.7	123	113
4-Terphenyl-d14	1718-51-0	0.025	%	85.5	96.6	87.5	112	103
<b>EP231S: PFAS Surrogate</b>								
13C4-PFOS	----	0.0002	%	97.2	86.6	87.0	91.0	99.4
13C8-PFOA	----	0.0002	%	100	98.6	102	109	98.0



## Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)		Sample ID		SX_OB_20220520_16 _43_SS_Primary_ALS	SX_OB_20220520_20 _06_SS_Primary_ALS	SX_OB_20220520_23 _59_SS_Primary_ALS	SX_OB_20220521_04 _06_SS_Primary_ALS	SX_OB_20220520_08 _32_SS_Primary_ALS			
Sampling date / time		20-May-2022 16:43		20-May-2022 20:06		20-May-2022 23:59		21-May-2022 04:06		20-May-2022 08:32	
Compound	CAS Number	LOR	Unit	EM2209419-008	EM2209419-009	EM2209419-010	EM2209419-011	EM2209419-012			
				Result	Result	Result	Result	Result			
<b>EA001: pH in soil using 0.01M CaCl extract</b>											
pH (CaCl <sub>2</sub> )	----	0.1	pH Unit	7.8	7.8	8.3	7.9	----			
<b>EA055: Moisture Content (Dried @ 105-110°C)</b>											
Moisture Content	----	1.0	%	30.6	28.4	29.7	32.0	----			
<b>EG005(ED093)T: Total Metals by ICP-AES</b>											
Arsenic	7440-38-2	5	mg/kg	41	44	40	23	----			
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	----			
Chromium	7440-47-3	5	mg/kg	77	81	73	102	----			
Copper	7440-50-8	5	mg/kg	51	46	49	58	----			
Lead	7439-92-1	5	mg/kg	<5	<5	<5	<5	----			
Molybdenum	7439-98-7	5	mg/kg	<5	<5	<5	<5	----			
Nickel	7440-02-0	5	mg/kg	126	117	127	172	----			
Selenium	7782-49-2	5	mg/kg	<5	<5	<5	<5	----			
Silver	7440-22-4	2	mg/kg	<2	<2	<2	<2	----			
Tin	7440-31-5	10	mg/kg	<10	<10	<10	<10	----			
Zinc	7440-66-6	5	mg/kg	81	72	75	113	----			
<b>EG035T: Total Recoverable Mercury by FIMS</b>											
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	----			
<b>EG048: Hexavalent Chromium (Alkaline Digest)</b>											
Hexavalent Chromium	18540-29-9	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	----			
<b>EK026SF: Total CN by Segmented Flow Analyser</b>											
Total Cyanide	57-12-5	5	mg/kg	<5	<5	<5	<5	----			
<b>EK040T: Fluoride Total</b>											
Fluoride	16984-48-8	100	mg/kg	180	250	180	230	----			
<b>EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>											
Initial pH	----	0.1	pH Unit	8.8	8.7	9.2	8.9	----			
After HCl pH	----	0.1	pH Unit	1.6	1.5	1.5	1.5	----			
Extraction Fluid pH	----	0.1	pH Unit	5.0	5.0	5.0	5.0	----			
Final pH	----	0.1	pH Unit	5.1	5.1	5.2	5.2	----			
<b>EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>											
Final pH	----	0.1	pH Unit	----	----	----	----	7.5			
<b>EP066: Polychlorinated Biphenyls (PCB)</b>											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	----			
<b>EP074A: Monocyclic Aromatic Hydrocarbons</b>											



## Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_OB_20220520_16 _43_SS_Primary_ALS	SX_OB_20220520_20 _06_SS_Primary_ALS	SX_OB_20220520_23 _59_SS_Primary_ALS	SX_OB_20220521_04 _06_SS_Primary_ALS	SX_OB_20220520_08 _32_SS_Primary_ALS
Sampling date / time				20-May-2022 16:43	20-May-2022 20:06	20-May-2022 23:59	21-May-2022 04:06	20-May-2022 08:32	
Compound	CAS Number	LOR	Unit	EM2209419-008	EM2209419-009	EM2209419-010	EM2209419-011	EM2209419-012	
				Result	Result	Result	Result	Result	
<b>EP074A: Monocyclic Aromatic Hydrocarbons - Continued</b>									
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	----	
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	----	
Ethylbenzene	100-41-4	0.5	mg/kg	<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	----	
Styrene	100-42-5	0.5	mg/kg	<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	----	
^ Sum of monocyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	----	
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	----	
<b>EP074H: Naphthalene</b>									
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	----	
<b>EP074I: Volatile Halogenated Compounds</b>									
Vinyl chloride	75-01-4	0.50	mg/kg	<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	----	
Methylene chloride	75-09-2	0.5	mg/kg	<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	----	
cis-1,2-Dichloroethene	156-59-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	----	
Chloroform	67-66-3	0.50	mg/kg	<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	----	
Carbon Tetrachloride	56-23-5	0.50	mg/kg	<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	----	
Trichloroethene	79-01-6	0.50	mg/kg	<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	----	
Tetrachloroethene	127-18-4	0.50	mg/kg	<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	----	
1,1,2,2-Tetrachloroethane	79-34-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	----	
Hexachlorobutadiene	87-68-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	----	
Chlorobenzene	108-90-7	0.50	mg/kg	<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	----	
1,2-Dichlorobenzene	95-50-1	0.50	mg/kg	<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	----	
^ Sum of volatile chlorinated hydrocarbons	----	0.50	mg/kg	<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	----	
<b>EP075A: Phenolic Compounds (Halogenated)</b>									



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220520_16_43_SS_Primary_ALS	SX_OB_20220520_20_06_SS_Primary_ALS	SX_OB_20220520_23_59_SS_Primary_ALS	SX_OB_20220521_04_06_SS_Primary_ALS	SX_OB_20220520_08_32_SS_Primary_ALS
Sampling date / time				20-May-2022 16:43	20-May-2022 20:06	20-May-2022 23:59	21-May-2022 04:06	20-May-2022 08:32
Compound	CAS Number	LOR	Unit	EM2209419-008	EM2209419-009	EM2209419-010	EM2209419-011	EM2209419-012
				Result	Result	Result	Result	Result
<b>EP075A: Phenolic Compounds (Halogenated) - Continued</b>								
2-Chlorophenol	95-57-8	0.50	mg/kg	<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	----
2,6-Dichlorophenol	87-65-0	0.50	mg/kg	<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	----
2,4,5-Trichlorophenol	95-95-4	1.00	mg/kg	<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	----
2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<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	----
Pentachlorophenol	87-86-5	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	----
^ Sum of Phenols (halogenated)	----	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	----
<b>EP075A: Phenolic Compounds (Non-halogenated)</b>								
Phenol	108-95-2	1	mg/kg	<1	<1	<1	<1	----
2-Methylphenol	95-48-7	1	mg/kg	<1	<1	<1	<1	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	----
2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	<1	<1	----
2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	<1	<1	----
2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	<5	<5	----
4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	<5	<5	----
2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	<5	<5	----
Dinoseb	88-85-7	20	mg/kg	<20	<20	<20	<20	----
2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	20	mg/kg	<20	<20	<20	<20	----
^ Sum of Phenols (non-halogenated)	----	20	mg/kg	<20	<20	<20	<20	----
<b>EP075B: Polynuclear Aromatic Hydrocarbons</b>								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	----
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	----
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	----
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	----
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	----
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	----
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	----
Pyrene	129-00-0	0.5	mg/kg	<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	----
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	----



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220520_16_43_SS_Primary_ALS	SX_OB_20220520_20_06_SS_Primary_ALS	SX_OB_20220520_23_59_SS_Primary_ALS	SX_OB_20220521_04_06_SS_Primary_ALS	SX_OB_20220520_08_32_SS_Primary_ALS
Sampling date / time				20-May-2022 16:43	20-May-2022 20:06	20-May-2022 23:59	21-May-2022 04:06	20-May-2022 08:32
Compound	CAS Number	LOR	Unit	EM2209419-008	EM2209419-009	EM2209419-010	EM2209419-011	EM2209419-012
				Result	Result	Result	Result	Result
<b>EP075B: Polynuclear Aromatic Hydrocarbons - Continued</b>								
Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<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	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<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	----
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<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	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	----
<b>EP075I: Organochlorine Pesticides</b>								
alpha-BHC	319-84-6	0.05	mg/kg	<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	----
beta-BHC	319-85-7	0.05	mg/kg	<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	----
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	----
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	----
Aldrin	309-00-2	0.05	mg/kg	<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	----
cis-Chlordane	5103-71-9	0.03	mg/kg	<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	----
Endosulfan 1	959-98-8	0.05	mg/kg	<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	----
Dieldrin	60-57-1	0.05	mg/kg	<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	----
Endrin	72-20-8	0.05	mg/kg	<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	----
4,4'-DDD	72-54-8	0.05	mg/kg	<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	----
4,4'-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	----
Methoxychlor	72-43-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	----
^ Sum of organochlorine pesticides	----	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.30	mg/kg	<0.30	<0.30	<0.30	<0.30	----



## Analytical Results

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220520_16_43_SS_Primary_ALS	SX_OB_20220520_20_06_SS_Primary_ALS	SX_OB_20220520_23_59_SS_Primary_ALS	SX_OB_20220521_04_06_SS_Primary_ALS	SX_OB_20220520_08_32_SS_Primary_ALS
Sampling date / time				20-May-2022 16:43	20-May-2022 20:06	20-May-2022 23:59	21-May-2022 04:06	20-May-2022 08:32
Compound	CAS Number	LOR	Unit	EM2209419-008	EM2209419-009	EM2209419-010	EM2209419-011	EM2209419-012
				Result	Result	Result	Result	Result
<b>EP075I: Organochlorine Pesticides - Continued</b>								
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	----
^ Chlordane	57-74-9	0.10	mg/kg	<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	----
<b>EP080/071: Total Petroleum Hydrocarbons</b>								
C6 - C9 Fraction	----	20	mg/kg	<20	<20	<20	<20	----
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	----
C6 - C10 Fraction	C6_C10	20	mg/kg	<20	<20	<20	<20	----
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	----
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	----
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions</b>								
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	----
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	----
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<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	----
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	5.0	µg/kg	<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	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	5.0	µg/kg	<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	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	5.0	µg/kg	<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	----
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
Perfluorobutanoic acid (PFBA)	375-22-4	5	µg/kg	<5	<5	<5	<5	----









## Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_OB_20220520_16_43_SS_Primary_ALS	SX_OB_20220520_20_06_SS_Primary_ALS	SX_OB_20220520_23_59_SS_Primary_ALS	SX_OB_20220521_04_06_SS_Primary_ALS	SX_OB_20220520_08_32_SS_Primary_ALS
Sampling date / time				20-May-2022 16:43	20-May-2022 20:06	20-May-2022 23:59	21-May-2022 04:06	20-May-2022 08:32	
Compound	CAS Number	LOR	Unit	EM2209419-008	EM2209419-009	EM2209419-010	EM2209419-011	EM2209419-012	
				Result	Result	Result	Result	Result	
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued</b>									
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	10.0	µg/kg	<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	----	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	----	
<b>EP231P: PFAS Sums</b>									
Sum of PFAS	----	50.0	µg/kg	<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	----	
Sum of PFAS (WA DER List)	----	10.0	µg/kg	<10.0	<10.0	<10.0	<10.0	----	
<b>EP066S: PCB Surrogate</b>									
Decachlorobiphenyl	2051-24-3	0.1	%	110	101	120	106	----	
<b>EP074S: VOC Surrogates (Ultra-Trace)</b>									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	91.9	89.3	79.9	88.2	----	
Toluene-D8	2037-26-5	0.1	%	81.1	79.8	72.9	79.4	----	
4-Bromofluorobenzene	460-00-4	0.1	%	89.1	86.4	81.5	85.1	----	
<b>EP075S: Acid Extractable Surrogates (Waste Classification)</b>									
Phenol-d6	13127-88-3	0.025	%	104	99.9	110	107	----	
2-Chlorophenol-D4	93951-73-6	0.025	%	100	89.2	102	96.2	----	
2,4,6-Tribromophenol	118-79-6	0.025	%	97.8	90.9	104	94.7	----	
<b>EP075T: Base/Neutral Extractable Surrogates (Waste Classification)</b>									
Nitrobenzene-D5	4165-60-0	0.025	%	99.8	97.8	106	101	----	
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	92.3	90.3	101	95.1	----	
2-Fluorobiphenyl	321-60-8	0.025	%	103	97.0	108	102	----	
Anthracene-d10	1719-06-8	0.025	%	108	100	112	106	----	
4-Terphenyl-d14	1718-51-0	0.025	%	99.9	91.6	102	96.5	----	
<b>EP231S: PFAS Surrogate</b>									
13C4-PFOS	----	0.0002	%	94.4	91.8	89.3	92.4	----	
13C8-PFOA	----	0.0002	%	101	96.8	104	102	----	



**Analytical Results**

Sub-Matrix: SOIL  
 (Matrix: SOIL)

Sample ID

				SX_OB_20220520_08 _34_SS_Duplicate_AL S	SX_OB_20220520_12 _10_SS_Primary_ALS	SX_OB_20220520_16 _34_SS_Triplicate_AL S	SX_IB_20220520_16 38_SS_Primary_ALS	SX_OB_20220520_16 _43_SS_Primary_ALS
Sampling date / time				20-May-2022 08:34	20-May-2022 12:10	20-May-2022 16:34	20-May-2022 16:38	20-May-2022 16:43
Compound	CAS Number	LOR	Unit	EM2209419-013	EM2209419-014	EM2209419-015	EM2209419-016	EM2209419-017
				Result	Result	Result	Result	Result
<b>EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>								
Final pH	----	0.1	pH Unit	9.3	9.2	9.1	9.5	9.3



**Analytical Results**

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_OB_20220520_20 _06_SS_Primary_ALS	SX_OB_20220520_23 _59_SS_Primary_ALS	SX_OB_20220521_04 _06_SS_Primary_ALS	----	----
Sampling date / time				20-May-2022 20:06	20-May-2022 23:59	21-May-2022 04:06	----	----	
Compound	CAS Number	LOR	Unit	EM2209419-018	EM2209419-019	EM2209419-020	-----	-----	
				Result	Result	Result	----	----	
<b>EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>									
Final pH	----	0.1	pH Unit	9.3	9.8	9.4	----	----	



## Analytical Results

Sub-Matrix: WATER (Matrix: WATER)		Sample ID		SX_OB_20220520_09 _43_SR_Rinsate_ALS	SX_OB_20220520_09 _43_SB_Blank_ALS	----	----	----
		Sampling date / time		20-May-2022 09:43	20-May-2022 09:43	----	----	----
Compound	CAS Number	LOR	Unit	EM2209419-003	EM2209419-004	-----	-----	-----
				Result	Result	---	---	---
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>								
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	----	----	----
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
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	----	----	----
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
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_20220520_09 _43_SR_Rinsate_ALS	SX_OB_20220520_09 _43_SB_Blank_ALS	----	----	----
Sampling date / time				20-May-2022 09:43	20-May-2022 09:43	----	----	----	
Compound	CAS Number	LOR	Unit	EM2209419-003	EM2209419-004	-----	-----	-----	
				Result	Result	---	---	---	
<b>EP231C: Perfluoroalkyl Sulfonamides - Continued</b>									
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	----	----	----	
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>									
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	----	----	----	
<b>EP231P: PFAS Sums</b>									
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	----	----	----	
<b>EP231S: PFAS Surrogate</b>									
13C4-PFOS	----	0.02	%	90.1	87.1	----	----	----	
13C8-PFOA	----	0.02	%	96.4	96.9	----	----	----	



## Surrogate Control Limits

Sub-Matrix: ASLP LEACHATE		Recovery Limits (%)	
Compound	CAS Number	Low	High
<b>EP231S: PFAS Surrogate</b>			
13C4-PFOS	----	65	140
13C8-PFOA	----	71	133

Sub-Matrix: DI WATER LEACHATE		Recovery Limits (%)	
Compound	CAS Number	Low	High
<b>EP231S: PFAS Surrogate</b>			
13C4-PFOS	----	65	140
13C8-PFOA	----	71	133

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
<b>EP066S: PCB Surrogate</b>			
Decachlorobiphenyl	2051-24-3	41	122
<b>EP074S: VOC Surrogates (Ultra-Trace)</b>			
1,2-Dichloroethane-D4	17060-07-0	59	119
Toluene-D8	2037-26-5	55	117
4-Bromofluorobenzene	460-00-4	59	123
<b>EP075S: Acid Extractable Surrogates (Waste Classification)</b>			
Phenol-d6	13127-88-3	63	134
2-Chlorophenol-D4	93951-73-6	60	125
2,4,6-Tribromophenol	118-79-6	54	129
<b>EP075T: Base/Neutral Extractable Surrogates (Waste Classification)</b>			
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
<b>EP231S: PFAS Surrogate</b>			
13C4-PFOS	----	68	136
13C8-PFOA	----	69	133

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
<b>EP231S: PFAS Surrogate</b>			
13C4-PFOS	----	65	140
13C8-PFOA	----	71	133

## QUALITY CONTROL REPORT

<b>Work Order</b>	: <b>EM2209419</b>	<b>Page</b>	: 1 of 30
<b>Client</b>	: <b>AGON ENVIRONMENTAL PTY LTD</b>	<b>Laboratory</b>	: Environmental Division Melbourne
<b>Contact</b>	: DAVID LAWSON	<b>Contact</b>	: Josh Alexander
<b>Address</b>	: D1.1 63-85 TURNER STREET PORT MELBOURNE 3207	<b>Address</b>	: 4 Westall Rd Springvale VIC Australia 3171
<b>Telephone</b>	: ----	<b>Telephone</b>	: +61-3-8549 9600
<b>Project</b>	: JC0927	<b>Date Samples Received</b>	: 21-May-2022
<b>Order number</b>	: ----	<b>Date Analysis Commenced</b>	: 23-May-2022
<b>C-O-C number</b>	: 20220521145702-ALS-56	<b>Issue Date</b>	: 30-May-2022
<b>Sampler</b>	: ES, TG		
<b>Site</b>	: 20220521145702-ALS-56		
<b>Quote number</b>	: EN/150/19 -WGTP -Bulk Sample Quote		
<b>No. of samples received</b>	: 20		
<b>No. of samples analysed</b>	: 20		



This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

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

### Signatories

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

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Dilani Fernando	Laboratory Coordinator	Melbourne Inorganics, Springvale, VIC
Jarwis Nheu	Senior Inorganic Chemist	Melbourne Inorganics, Springvale, VIC
Nancy Wang	2IC Organic Chemist	Melbourne Inorganics, Springvale, VIC
Nancy Wang	2IC Organic Chemist	Melbourne Organics, Springvale, VIC
Nikki Stepniewski	Senior Inorganic Instrument 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 (%)
<b>EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4360227)</b>									
EM2209318-026	Anonymous	EG005T: Copper	7440-50-8	5	mg/kg	90	104	13.4	0% - 20%
		EG005T: Lead	7439-92-1	5	mg/kg	86	# 159	59.9	0% - 20%
EM2209318-035	Anonymous	EG005T: Zinc	7440-66-6	5	mg/kg	563	516	8.8	0% - 20%
EM2209318-026	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	18	19	5.8	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	16	8.1	No Limit
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	8	9	16.8	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	9	17	55.1	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	309	355	14.0	0% - 20%
EM2209318-035	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	18	20	11.6	0% - 50%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	34	33	0.0	0% - 50%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	8	8	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	338	313	7.9	0% - 20%
		EG005T: Lead	7439-92-1	5	mg/kg	224	227	1.5	0% - 20%
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	12	39	106	No Limit
<b>EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4360229)</b>									



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 (%)
<b>EG005(ED093): Total Metals by ICP-AES (QC Lot: 4360229) - continued</b>									
EM2209419-011	SX_OB_20220521_04_06_ SS_Primary_ALS	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	102	107	4.5	0% - 20%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<5	<5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	172	149	14.5	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	23	36	45.3	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	58	57	1.8	0% - 50%
		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	<10	<10	0.0	No Limit
EG005T: Zinc	7440-66-6	5	mg/kg	113	97	14.9	0% - 20%		
EM2209472-011	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	83	77	7.5	0% - 50%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<5	<5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	142	120	16.5	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	43	45	3.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	53	49	7.2	0% - 50%
		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	<10	<10	0.0	No Limit
EG005T: Zinc	7440-66-6	5	mg/kg	81	69	16.2	0% - 50%		
<b>EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4362541)</b>									
EM2209271-017	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	7.0	7.1	0.0	0% - 20%
EM2209375-009	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	7.0	7.2	3.5	0% - 20%
<b>EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4362542)</b>									
EM2209419-008	SX_OB_20220520_16_43_ SS_Primary_ALS	EA001: pH (CaCl2)	----	0.1	pH Unit	7.8	7.8	0.0	0% - 20%
EM2209472-001	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	7.7	7.6	0.0	0% - 20%
<b>EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4362778)</b>									
EM2209419-001	SX_OB_20220520_08_32_ SS_Primary_ALS	EA055: Moisture Content	----	0.1	%	28.3	31.1	9.5	0% - 20%
EM2209472-002	Anonymous	EA055: Moisture Content	----	0.1	%	29.7	29.3	1.2	0% - 20%
<b>EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4360226)</b>									
EM2209318-026	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2209318-035	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	0.1	<0.1	0.0	No Limit
<b>EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4360228)</b>									



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 (%)
<b>EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4360228) - continued</b>									
EM2209419-011	SX_OB_20220521_04_06_ SS_Primary_ALS	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2209472-011	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
<b>EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 4362028)</b>									
EM2209419-001	SX_OB_20220520_08_32_ SS_Primary_ALS	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1.0	<1.0	0.0	No Limit
EM2209472-001	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1.0	1.8	57.8	No Limit
<b>EK026SF: Total CN by Segmented Flow Analyser (QC Lot: 4362934)</b>									
EM2209419-005	SX_OB_20220520_12_10_ SS_Primary_ALS	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<5	<5	0.0	No Limit
EM2209289-001	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	1	1	0.0	No Limit
<b>EK040T: Fluoride Total (QC Lot: 4362007)</b>									
EM2209419-001	SX_OB_20220520_08_32_ SS_Primary_ALS	EK040T: Fluoride	16984-48-8	40	mg/kg	190	170	8.2	No Limit
EM2209472-001	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	240	150	45.2	No Limit
<b>EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4359096)</b>									
EM2209419-001	SX_OB_20220520_08_32_ SS_Primary_ALS	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
<b>EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 4352965)</b>									
EM2209419-001	SX_OB_20220520_08_32_ 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
<b>EP074H: Naphthalene (QC Lot: 4352965)</b>									
EM2209419-001	SX_OB_20220520_08_32_ SS_Primary_ALS	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
<b>EP074I: Volatile Halogenated Compounds (QC Lot: 4352965)</b>									
EM2209419-001	SX_OB_20220520_08_32_ 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
		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



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 (%)
<b>EP074I: Volatile Halogenated Compounds (QC Lot: 4352965) - continued</b>									
EM2209419-001	SX_OB_20220520_08_32_ SS_Primary_ALS	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		
<b>EP075A: Phenolic Compounds (Halogenated) (QC Lot: 4359094)</b>									
EM2209419-001	SX_OB_20220520_08_32_ SS_Primary_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		
<b>EP075A: Phenolic Compounds (Non-halogenated) (QC Lot: 4359094)</b>									
EM2209419-001	SX_OB_20220520_08_32_ SS_Primary_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		
<b>EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4359094)</b>									
EM2209419-001	SX_OB_20220520_08_32_ SS_Primary_ALS	EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4359094) - continued</b>									
EM2209419-001	SX_OB_20220520_08_32_ SS_Primary_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
<b>EP075I: Organochlorine Pesticides (QC Lot: 4359094)</b>									
EM2209419-001	SX_OB_20220520_08_32_ SS_Primary_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
		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
<b>EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4352965)</b>									



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 (%)
<b>EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4352965) - continued</b>									
EM2209419-001	SX_OB_20220520_08_32_ SS_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<20	<20	0.0	No Limit
<b>EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4359095)</b>									
EM2209419-001	SX_OB_20220520_08_32_ SS_Primary_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
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4352965)</b>									
EM2209419-001	SX_OB_20220520_08_32_ 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
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4359095)</b>									
EM2209419-001	SX_OB_20220520_08_32_ SS_Primary_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
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4362245)</b>									
EM2209419-001	SX_OB_20220520_08_32_ SS_Primary_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
EM2209450-009	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
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4362245)</b>									
EM2209419-001	SX_OB_20220520_08_32_ SS_Primary_ALS	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<5.0 µg/kg	<0.0050	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 (%)		
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4362245) - continued</b>											
EM2209419-001	SX_OB_20220520_08_32_ SS_Primary_ALS	EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit		
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit		
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit		
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit		
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<5 µg/kg	<0.005	0.0	No Limit		
EM2209450-009	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		
		<b>EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4362245)</b>									
		EM2209419-001	SX_OB_20220520_08_32_ SS_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9			0.0002	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit		
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6			0.0002	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit		
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8			0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit		
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2			0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit		
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7			0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit		
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2			0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit		
EM2209450-009	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		





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 (%)
<b>EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4362245) - continued</b>									
EM2209450-009	Anonymous	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
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4362245)</b>									
EM2209419-001	SX_OB_20220520_08_32_SS_Primary_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
EM2209450-009	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
<b>EP231P: PFAS Sums (QC Lot: 4362245)</b>									
EM2209419-001	SX_OB_20220520_08_32_SS_Primary_ALS	EP231X: Sum of PFAS	----	0.0002	mg/kg	<50.0 µg/kg	<0.0500	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<10.0 µg/kg	<0.0100	0.0	No Limit
EM2209450-009	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 Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4359188)</b>									
EM2209335-004	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



Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report							
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)		
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4359188) - continued</b>											
EM2209335-004	Anonymous	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		
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4364033)</b>											
EM2209401-002	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		
EM2209419-001	SX_OB_20220520_08_32_SS_Primary_ALS	EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit		
		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		
EM2209419-001	SX_OB_20220520_08_32_SS_Primary_ALS	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		
		<b>EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4364036)</b>									
		EM2209419-012	SX_OB_20220520_08_32_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		
EM2209419-020	SX_OB_20220521_04_06_SS_Primary_ALS	EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit		
		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		
EM2209419-020	SX_OB_20220521_04_06_SS_Primary_ALS	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		
		<b>EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4359188)</b>									
		EM2209335-004	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		



Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4359188) - continued</b>									
EM2209335-004	Anonymous	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
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4364033)</b>									
EM2209401-002	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
		EM2209419-001	SX_OB_20220520_08_32_SS_Primary_ALS	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01
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		
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4364036)</b>									
EM2209419-012	SX_OB_20220520_08_32_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



Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4364036) - continued</b>									
EM2209419-012	SX_OB_20220520_08_32_ SS_Primary_ALS	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
EM2209419-020	SX_OB_20220521_04_06_ 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		
<b>EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4359188)</b>									
EM2209335-004	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
<b>EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4364033)</b>									
EM2209401-002	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



Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4364033) - continued</b>									
EM2209401-002	Anonymous	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
EM2209419-001	SX_OB_20220520_08_32_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
<b>EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4364036)</b>									
EM2209419-012	SX_OB_20220520_08_32_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
EM2209419-020	SX_OB_20220521_04_06_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



Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4364036) - continued</b>									
EM2209419-020	SX_OB_20220521_04_06_ SS_Primary_ALS	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
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4359188)</b>									
EM2209335-004	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
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4364033)</b>									
EM2209401-002	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
EM2209419-001	SX_OB_20220520_08_32_ 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
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4364036)</b>									
EM2209419-012	SX_OB_20220520_08_32_ 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





Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4364036) - continued</b>									
EM2209419-012	SX_OB_20220520_08_32_SS_Primary_ALS	EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EM2209419-020	SX_OB_20220521_04_06_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
<b>EP231P: PFAS Sums (QC Lot: 4359188)</b>									
EM2209335-004	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
<b>EP231P: PFAS Sums (QC Lot: 4364033)</b>									
EM2209401-002	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
EM2209419-001	SX_OB_20220520_08_32_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
<b>EP231P: PFAS Sums (QC Lot: 4364036)</b>									
EM2209419-012	SX_OB_20220520_08_32_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
EM2209419-020	SX_OB_20220521_04_06_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





### 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: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)	
						LCS	Low	High	
<b>EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4360227)</b>									
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	96.1	70.0	130	
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	50.6	50.0	130	
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	98.4	70.0	130	
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	91.7	70.0	130	
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	90.2	70.0	130	
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	88.0	70.0	130	
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	94.1	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	92.2	70.0	130	
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.33 mg/kg	88.3	70.0	130	
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	74.5	70.0	130	
<b>EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4360229)</b>									
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	97.7	70.0	130	
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	50.4	50.0	130	
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	100	70.0	130	
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	93.0	70.0	130	
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	91.3	70.0	130	
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	89.4	70.0	130	
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	96.2	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	93.8	70.0	130	
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.33 mg/kg	93.9	70.0	130	
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	75.4	70.0	130	
<b>EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel) (QCLot: 4362441)</b>									
EN60-DIa-P: Final pH	----	0.1	pH Unit	7.1	----	----	----	----	
<b>EA001: pH in soil using 0.01M CaCl extract (QCLot: 4362541)</b>									
EA001: pH (CaCl2)	----	----	pH Unit	----	4 pH Unit	100	98.8	101	
				----	7 pH Unit	100	99.3	101	
<b>EA001: pH in soil using 0.01M CaCl extract (QCLot: 4362542)</b>									
EA001: pH (CaCl2)	----	----	pH Unit	----	4 pH Unit	100	98.8	101	
				----	7 pH Unit	99.6	99.3	101	
<b>EG035T: Total Recoverable Mercury by FIMS (QCLot: 4360226)</b>									
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	91.4	70.0	130	
<b>EG035T: Total Recoverable Mercury by FIMS (QCLot: 4360228)</b>									



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
<b>EG035T: Total Recoverable Mercury by FIMS (QCLot: 4360228) - continued</b>									
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	93.0	70.0	130	
<b>EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4362028)</b>									
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	82.5	70.0	130	
<b>EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4362934)</b>									
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	97.2	70.0	130	
<b>EK040T: Fluoride Total (QCLot: 4362007)</b>									
EK040T: Fluoride	16984-48-8	40	mg/kg	<40	400 mg/kg	80.9	75.2	110	
<b>EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4359096)</b>									
EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	108	67.4	136	
<b>EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4352965)</b>									
EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	2.1 mg/kg	98.2	69.2	116	
EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	2.1 mg/kg	96.5	67.7	116	
EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2.1 mg/kg	93.0	66.6	115	
EP074-UT: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	4.2 mg/kg	97.0	65.2	112	
	106-42-3								
EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	2.1 mg/kg	96.5	69.4	111	
EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2.1 mg/kg	95.1	68.4	110	
<b>EP074H: Naphthalene (QCLot: 4352965)</b>									
EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	0.6 mg/kg	88.4	72.3	114	
<b>EP074I: Volatile Halogenated Compounds (QCLot: 4352965)</b>									
EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.02	0.1 mg/kg	111	47.0	138	
EP074-UT: 1,1-Dichloroethene	75-35-4	0.01	mg/kg	<0.01	0.1 mg/kg	95.5	57.6	125	
EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.4	2.1 mg/kg	101	72.3	115	
EP074-UT: trans-1,2-Dichloroethene	156-60-5	0.02	mg/kg	<0.02	0.1 mg/kg	97.1	60.5	122	
EP074-UT: cis-1,2-Dichloroethene	156-59-2	0.01	mg/kg	<0.01	0.1 mg/kg	93.7	70.3	112	
EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.02	0.1 mg/kg	96.0	66.6	115	
EP074-UT: 1,1,1-Trichloroethane	71-55-6	0.01	mg/kg	<0.01	0.1 mg/kg	90.2	64.4	122	
EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.01	0.1 mg/kg	85.8	58.4	127	
EP074-UT: 1,2-Dichloroethane	107-06-2	0.02	mg/kg	<0.02	0.1 mg/kg	98.7	72.9	114	
EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.02	0.1 mg/kg	94.8	64.7	115	
EP074-UT: 1,1,2-Trichloroethane	79-00-5	0.04	mg/kg	<0.04	0.1 mg/kg	102	72.6	116	
EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.02	0.1 mg/kg	93.6	60.0	119	
EP074-UT: 1,1,1,2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.01	0.1 mg/kg	89.2	71.8	116	
EP074-UT: 1,1,1,2,2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.02	0.1 mg/kg	90.0	66.1	116	
EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.02	0.1 mg/kg	77.0	39.8	128	
EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.02	0.1 mg/kg	94.0	70.3	113	
EP074-UT: 1,4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.02	0.1 mg/kg	85.3	62.6	113	
EP074-UT: 1,2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.02	0.1 mg/kg	88.2	70.8	110	



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)	
						LCS	Low	High	
<b>EP074I: Volatile Halogenated Compounds (QCLot: 4352965) - continued</b>									
EP074-UT: 1,2,4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.01	0.1 mg/kg	79.2	48.4	120	
<b>EP075A: Phenolic Compounds (Halogenated) (QCLot: 4359094)</b>									
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	99.2	72.7	126	
EP075-EM: 2,6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	2 mg/kg	100	73.5	132	
EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	2 mg/kg	99.4	72.8	128	
EP075-EM: 2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	2 mg/kg	97.9	73.3	134	
EP075-EM: 2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	2 mg/kg	96.0	72.4	128	
EP075-EM: 2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	2 mg/kg	95.9	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	98.0	71.9	128	
EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	4 mg/kg	92.4	54.4	135	
<b>EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4359094)</b>									
EP075-EM: Phenol	108-95-2	1	mg/kg	<1	2 mg/kg	100	71.5	130	
EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	2 mg/kg	102	73.4	129	
EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	4 mg/kg	102	74.3	129	
EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	2 mg/kg	97.9	70.9	133	
EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	2 mg/kg	97.0	71.8	132	
EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	10 mg/kg	72.6	41.0	156	
EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	10 mg/kg	99.3	65.3	134	
EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	10 mg/kg	87.4	43.6	128	
EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	10 mg/kg	92.6	62.0	128	
EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<5	10 mg/kg	81.8	34.5	137	
<b>EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4359094)</b>									
EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	2 mg/kg	99.8	73.0	131	
EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	2 mg/kg	98.0	76.3	130	
EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	2 mg/kg	97.8	72.0	135	
EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	2 mg/kg	99.6	74.4	131	
EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	2 mg/kg	99.4	73.3	130	
EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	2 mg/kg	99.7	78.4	127	
EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	2 mg/kg	98.4	75.3	132	
EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	2 mg/kg	99.3	75.4	130	
EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	2 mg/kg	103	69.6	133	
EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	2 mg/kg	103	75.0	133	
EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	4 mg/kg	107	75.8	133	
EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	2 mg/kg	105	65.1	130	
EP075-EM: Indeno(1,2,3-cd)pyrene	193-39-5	0.5	mg/kg	<0.5	2 mg/kg	106	72.1	134	



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)	
						LCS	Low	High	
<b>EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4359094) - continued</b>									
EP075-EM: Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	2 mg/kg	106	72.9	135	
EP075-EM: Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	2 mg/kg	105	71.3	134	
<b>EP075I: Organochlorine Pesticides (QCLot: 4359094)</b>									
EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	2 mg/kg	98.2	71.0	129	
EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	2 mg/kg	97.9	74.8	126	
EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	2 mg/kg	98.4	75.7	130	
EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	2 mg/kg	98.6	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	96.3	75.5	131	
EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	2 mg/kg	98.7	76.8	130	
EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	2 mg/kg	97.4	73.6	130	
EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	2 mg/kg	95.1	75.0	133	
EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	2 mg/kg	95.7	75.3	131	
EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	2 mg/kg	94.4	69.4	134	
EP075-EM: 4,4`-DDE	72-55-9	0.05	mg/kg	<0.05	2 mg/kg	99.2	71.0	132	
EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	2 mg/kg	99.1	78.0	133	
EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	2 mg/kg	98.3	69.0	143	
EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	2 mg/kg	112	55.7	145	
EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	2 mg/kg	99.8	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	100	70.2	135	
EP075-EM: 4,4`-DDT	50-29-3	0.05	mg/kg	<0.05	2 mg/kg	97.6	77.7	133	
EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	2 mg/kg	100	63.6	135	
<b>EP080/071: Total Petroleum Hydrocarbons (QCLot: 4352965)</b>									
EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<10	39.6 mg/kg	80.3	61.1	119	
<b>EP080/071: Total Petroleum Hydrocarbons (QCLot: 4359095)</b>									
EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	670 mg/kg	97.0	74.4	129	
EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	2860 mg/kg	101	81.0	123	
EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	1490 mg/kg	91.2	81.8	121	
EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	5020 mg/kg	97.4	70.0	130	
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4352965)</b>									
EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	48.9 mg/kg	81.9	59.9	119	
EP074-UT: C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	----	----	----	----	
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4359095)</b>									
EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	1000 mg/kg	95.8	75.4	132	
EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	3770 mg/kg	100	80.8	120	
EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	250 mg/kg	93.9	73.3	136	



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)	
						LCS	Low	High	
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4359095) - continued</b>									
EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	5020 mg/kg	99.0	70.0	130	
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4362245)</b>									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00111 mg/kg	93.8	72.0	128	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	80.7	73.0	123	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.0014 mg/kg	69.2	67.0	130	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	93.3	70.0	132	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	88.9	68.0	136	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00121 mg/kg	84.0	59.0	134	
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4362245)</b>									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	98.1	71.0	135	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.4	69.0	132	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.9	70.0	132	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.4	71.0	131	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.9	69.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	115	72.0	129	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	81.7	69.0	133	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	86.8	64.0	136	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.2	69.0	135	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.2	66.0	139	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	114	69.0	133	
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4362245)</b>									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.2	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	116	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	98.4	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	81.6	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	101	63.0	144	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.5	61.0	139	
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4362245)</b>									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	94.1	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	98.3	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	116	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	125	70.0	130	
<b>EP231P: PFAS Sums (QCLot: 4362245)</b>									





Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report				
					Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)	
						LCS	Low	High	High
<b>EP231P: PFAS Sums (QCLot: 4362245) - continued</b>									
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: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report				
					Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)	
						LCS	Low	High	High
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4359188)</b>									
EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.444 µg/L	99.6	72.0	130	
EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.47 µg/L	85.7	71.0	127	
EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.457 µg/L	79.6	68.0	131	
EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.477 µg/L	91.8	69.0	134	
EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.465 µg/L	93.9	65.0	140	
EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.482 µg/L	90.5	53.0	142	
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4364033)</b>									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	85.4	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	77.3	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	72.6	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	76.0	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	83.9	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	86.2	53.0	142	
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4364036)</b>									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	99.7	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	75.9	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	90.6	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	93.8	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	101	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	127	53.0	142	
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4359188)</b>									
EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.10	2.5 µg/L	91.3	73.0	129	
EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.5 µg/L	91.1	72.0	129	
EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.5 µg/L	93.4	72.0	129	
EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.5 µg/L	93.8	72.0	130	
EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.5 µg/L	86.8	71.0	133	
EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.5 µg/L	101	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	97.1	69.0	133	
EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.5 µg/L	95.7	72.0	134	



Sub-Matrix: WATER

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4359188) - continued</b>									
EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.5 µg/L	102	65.0	144	
EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	1.25 µg/L	101	71.0	132	
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4364033)</b>									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	82.4	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	78.2	72.0	129	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	80.0	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	80.4	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	80.6	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	80.4	69.0	130	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	88.1	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	82.2	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	82.7	72.0	134	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	83.9	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	81.2	71.0	132	
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4364036)</b>									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	103	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	98.9	72.0	129	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	100	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	100	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	98.6	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	89.8	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	97.0	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	99.5	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	109	71.0	132	
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4359188)</b>									
EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.5 µg/L	93.8	67.0	137	
EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	1.25 µg/L	110	68.0	141	
EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	1.25 µg/L	90.7	70.0	130	
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	1.25 µg/L	78.4	70.0	130	
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	1.25 µg/L	102	70.0	130	
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.5 µg/L	104	65.0	136	
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.5 µg/L	102	61.0	135	





Sub-Matrix: WATER

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4364033)</b>									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	83.4	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	84.8	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	74.3	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	79.0	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	78.8	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	77.2	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	86.2	61.0	135	
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4364036)</b>									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	100	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	106	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	87.6	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	106	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	95.1	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	84.3	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	89.8	61.0	135	
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4359188)</b>									
EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.469 µg/L	93.9	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	102	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	98.4	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	115	70.0	130	
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4364033)</b>									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	82.6	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	115	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	89.4	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	87.9	70.0	130	
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4364036)</b>									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	85.8	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	117	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	129	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	123	70.0	130	
<b>EP231P: PFAS Sums (QCLot: 4359188)</b>									



Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)	
						LCS	Low	High
<b>EP231P: PFAS Sums (QCLot: 4359188) - continued</b>								
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	----	----	----	----
<b>EP231P: PFAS Sums (QCLot: 4364033)</b>								
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	----	----	----	----
<b>EP231P: PFAS Sums (QCLot: 4364036)</b>								
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**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike Concentration	Spike Recovery(%)	Acceptable Limits (%)	
				Concentration	MS	Low	High
<b>EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4360227)</b>							
EM2209318-027	Anonymous	EG005T: Copper	7440-50-8	250 mg/kg	80.6	80.0	120
EM2209318-027	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	102	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	92.4	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	99.1	79.0	121
		EG005T: Lead	7439-92-1	250 mg/kg	105	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	87.8	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	# Not Determined	80.0	120
<b>EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4360229)</b>							
EM2209472-001	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	81.9	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	88.5	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	97.7	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	94.5	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	88.5	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	83.1	78.0	120



Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
<b>EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4360229) - continued</b>							
EM2209472-001	Anonymous	EG005T: Zinc	7440-66-6	250 mg/kg	83.3	80.0	120
<b>EG035T: Total Recoverable Mercury by FIMS (QCLot: 4360226)</b>							
EM2209318-027	Anonymous	EG035T: Mercury	7439-97-6	0.5 mg/kg	106	76.0	116
<b>EG035T: Total Recoverable Mercury by FIMS (QCLot: 4360228)</b>							
EM2209472-001	Anonymous	EG035T: Mercury	7439-97-6	0.5 mg/kg	97.8	76.0	116
<b>EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4362028)</b>							
EM2209419-002	SX_OB_20220520_08_34_SS_Duplicate_ALS	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	80.5	58.0	114
EM2209419-002	SX_OB_20220520_08_34_SS_Duplicate_ALS	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	98.0	58.0	114
<b>EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4362934)</b>							
EM2209289-002	Anonymous	EK026SF: Total Cyanide	57-12-5	20 mg/kg	124	70.0	130
<b>EK040T: Fluoride Total (QCLot: 4362007)</b>							
EM2209419-002	SX_OB_20220520_08_34_SS_Duplicate_ALS	EK040T: Fluoride	16984-48-8	400 mg/kg	84.4	70.0	130
<b>EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4359096)</b>							
EM2209419-005	SX_OB_20220520_12_10_SS_Primary_ALS	EP066-EM: Total Polychlorinated biphenyls	----	1 mg/kg	103	59.6	152
<b>EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4352965)</b>							
EM2209419-002	SX_OB_20220520_08_34_SS_Duplicate_ALS	EP074-UT: Benzene	71-43-2	2 mg/kg	111	53.7	130
		EP074-UT: Toluene	108-88-3	2 mg/kg	107	55.1	124
<b>EP074I: Volatile Halogenated Compounds (QCLot: 4352965)</b>							
EM2209419-002	SX_OB_20220520_08_34_SS_Duplicate_ALS	EP074-UT: 1,1-Dichloroethene	75-35-4	2 mg/kg	109	38.4	145
		EP074-UT: Trichloroethene	79-01-6	2 mg/kg	105	48.1	128
		EP074-UT: Chlorobenzene	108-90-7	2 mg/kg	102	55.5	122
<b>EP075A: Phenolic Compounds (Halogenated) (QCLot: 4359094)</b>							
EM2209419-002	SX_OB_20220520_08_34_SS_Duplicate_ALS	EP075-EM: 2-Chlorophenol	95-57-8	3 mg/kg	107	44.0	143
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	3 mg/kg	113	41.5	139
		EP075-EM: Pentachlorophenol	87-86-5	3 mg/kg	86.3	10.0	144
<b>EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4359094)</b>							
EM2209419-002	SX_OB_20220520_08_34_SS_Duplicate_ALS	EP075-EM: Phenol	108-95-2	3 mg/kg	109	44.2	134
		EP075-EM: 2-Nitrophenol	88-75-5	3 mg/kg	90.4	34.2	129
<b>EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4359094)</b>							
EM2209419-002	SX_OB_20220520_08_34_SS_Duplicate_ALS	EP075-EM: Acenaphthene	83-32-9	3 mg/kg	105	42.6	138
		EP075-EM: Pyrene	129-00-0	3 mg/kg	104	37.8	152
<b>EP080/071: Total Petroleum Hydrocarbons (QCLot: 4352965)</b>							
EM2209419-002	SX_OB_20220520_08_34_SS_Duplicate_ALS	EP074-UT: C6 - C9 Fraction	----	28 mg/kg	69.9	42.3	111
<b>EP080/071: Total Petroleum Hydrocarbons (QCLot: 4359095)</b>							



Sub-Matrix: SOIL

				Matrix Spike (MS) Report			
				Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
<b>EP080/071: Total Petroleum Hydrocarbons (QCLot: 4359095) - continued</b>							
EM2209419-006	SX_OB_20220520_16_34_SS_Triplicate_ALS	EP071-EM: C10 - C14 Fraction	----	670 mg/kg	94.4	71.3	126
		EP071-EM: C15 - C28 Fraction	----	2860 mg/kg	101	75.1	123
		EP071-EM: C29 - C36 Fraction	----	1490 mg/kg	92.1	78.1	120
		EP071-EM: C10 - C36 Fraction (sum)	----	5020 mg/kg	97.9	70.0	130
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4352965)</b>							
EM2209419-002	SX_OB_20220520_08_34_SS_Duplicate_ALS	EP074-UT: C6 - C10 Fraction	C6_C10	33 mg/kg	62.6	39.9	109
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4359095)</b>							
EM2209419-006	SX_OB_20220520_16_34_SS_Triplicate_ALS	EP071-EM: >C10 - C16 Fraction	----	1000 mg/kg	94.3	71.5	130
		EP071-EM: >C16 - C34 Fraction	----	3770 mg/kg	101	76.9	119
		EP071-EM: >C34 - C40 Fraction	----	250 mg/kg	92.8	65.3	139
		EP071-EM: >C10 - C40 Fraction (sum)	----	5020 mg/kg	99.5	70.0	130
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4362245)</b>							
EM2209419-002	SX_OB_20220520_08_34_SS_Duplicate_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00111 mg/kg	110	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00118 mg/kg	75.5	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00114 mg/kg	88.3	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	95.7	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	90.4	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00121 mg/kg	86.0	59.0	134
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4362245)</b>							
EM2209419-002	SX_OB_20220520_08_34_SS_Duplicate_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	98.4	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	94.9	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	99.4	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	96.5	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	91.7	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	122	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	91.4	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	97.0	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	96.3	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	87.2	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	108	69.0	133
		<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4362245)</b>					
EM2209419-002	SX_OB_20220520_08_34_SS_Duplicate_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	98.4	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	111	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	83.3	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	83.2	70.0	130





Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4362245) - continued</b>							
EM2209419-002	SX_OB_20220520_08_34_SS_Duplicate_ALS	EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	97.3	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	94.6	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	112	61.0	139
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4362245)</b>							
EM2209419-002	SX_OB_20220520_08_34_SS_Duplicate_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	96.2	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00119 mg/kg	112	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	121	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00121 mg/kg	118	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4359188)</b>							
EM2209335-005	Anonymous	EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.444 µg/L	108	72.0	130
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.47 µg/L	85.1	71.0	127
		EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.457 µg/L	89.4	68.0	131
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.477 µg/L	102	69.0	134
		EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.465 µg/L	100	65.0	140
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.482 µg/L	97.8	53.0	142
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4364033)</b>							
EM2209401-006	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	87.3	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	85.9	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	79.2	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	90.7	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	84.4	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	87.0	53.0	142
<b>EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4364036)</b>							
EM2209419-013	SX_OB_20220520_08_34_SS_Duplicate_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	93.1	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	76.7	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	90.7	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	91.6	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	95.9	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	81.1	53.0	142
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4359188)</b>							
EM2209335-005	Anonymous	EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	2.5 µg/L	100	73.0	129



Sub-Matrix: WATER

				Matrix Spike (MS) Report			
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Spike	SpikeRecovery(%)	Acceptable Limits (%)	
				Concentration	MS	Low	High
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4359188) - continued</b>							
EM2209335-005	Anonymous	EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.5 µg/L	101	72.0	129
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.5 µg/L	109	72.0	129
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.5 µg/L	103	72.0	130
		EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.5 µg/L	103	71.0	133
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.5 µg/L	112	69.0	130
		EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.5 µg/L	105	71.0	129
		EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.5 µg/L	99.6	69.0	133
		EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.5 µg/L	104	72.0	134
		EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.5 µg/L	111	65.0	144
		EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	1.25 µg/L	119	71.0	132
<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4364033)</b>							
EM2209401-006	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	93.1	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	84.7	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	83.5	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	90.8	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	85.7	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	86.0	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	89.5	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	83.0	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	87.7	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	91.2	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	92.5	71.0	132
		<b>EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4364036)</b>					
EM2209419-013	SX_OB_20220520_08_34_SS_Duplicate_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	76.5	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	84.9	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	86.2	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	89.0	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	91.6	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	97.8	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	86.5	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	88.6	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	91.8	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	90.7	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	102	71.0	132
		<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4359188)</b>					
EM2209335-005	Anonymous	EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.5 µg/L	104	67.0	137
		EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	1.25 µg/L	128	68.0	141



Sub-Matrix: WATER

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4359188) - continued</b>							
EM2209335-005	Anonymous	EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	1.25 µg/L	103	70.0	130
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	1.25 µg/L	84.5	70.0	130
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	1.25 µg/L	118	70.0	130
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.5 µg/L	100	65.0	136
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.5 µg/L	107	61.0	135
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4364033)</b>							
EM2209401-006	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	86.4	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	80.9	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	72.5	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	82.4	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	84.9	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	86.4	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	84.7	61.0	135
<b>EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4364036)</b>							
EM2209419-013	SX_OB_20220520_08_34_SS_Duplicate_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	87.3	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	74.8	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	77.4	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	83.8	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	85.8	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	82.0	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	90.3	61.0	135
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4359188)</b>							
EM2209335-005	Anonymous	EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.469 µg/L	97.2	63.0	143
		EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.476 µg/L	121	64.0	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
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4359188) - continued</b>							
EM2209335-005	Anonymous	EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.48 µg/L	114	67.0	138
		EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.483 µg/L	127	70.0	130
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4364033)</b>							
EM2209401-006	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	101	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	113	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	97.6	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	101	70.0	130
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4364036)</b>							
EM2209419-013	SX_OB_20220520_08_34_SS_Duplicate_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	95.7	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	92.2	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	101	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	108	70.0	130

## QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EM2209419	Page	: 1 of 14
Client	: AGON ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: DAVID LAWSON	Telephone	: +61-3-8549 9600
Project	: JC0927	Date Samples Received	: 21-May-2022
Site	: 20220521145702-ALS-56	Issue Date	: 30-May-2022
Sampler	: ES, TG	No. of samples received	: 20
Order number	: ----	No. of samples analysed	: 20

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** Laboratory Control outliers occur.
- Duplicate outliers exist - please see following pages for full details.
- 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: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
<b>Duplicate (DUP) RPDs</b>							
EG005(ED093)T: Total Metals by ICP-AES	EM2209318--026	Anonymous	Lead	7439-92-1	59.9 %	0% - 20%	RPD exceeds LOR based limits
<b>Matrix Spike (MS) Recoveries</b>							
EG005(ED093)T: Total Metals by ICP-AES	EM2209318--027	Anonymous	Zinc	7440-66-6	Not Determined	----	MS recovery not determined, background level greater than or equal to 4x spike level.

### Analysis Holding Time Compliance

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

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

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

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

Matrix: **SOIL**

Evaluation: \* = Holding time breach ; ✓ = Within holding time.

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
<b>EA001: pH in soil using 0.01M CaCl extract</b>								
<b>Soil Glass Jar - Unpreserved (EA001)</b> SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	27-May-2022	27-May-2022	✓	27-May-2022	27-May-2022	✓
<b>Soil Glass Jar - Unpreserved (EA001)</b> SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	27-May-2022	28-May-2022	✓	27-May-2022	27-May-2022	✓
<b>EA055: Moisture Content (Dried @ 105-110°C)</b>								
<b>Soil Glass Jar - Unpreserved (EA055)</b> SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	----	----	----	26-May-2022	03-Jun-2022	✓
<b>Soil Glass Jar - Unpreserved (EA055)</b> SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	----	----	----	26-May-2022	04-Jun-2022	✓



Matrix: SOIL

Evaluation: \* = Holding time breach ; ✓ = Within holding time.

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
<b>EG005(ED093)T: Total Metals by ICP-AES</b>								
<b>Soil Glass Jar - Unpreserved (EG005T)</b> SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	26-May-2022	17-Nov-2022	✓	26-May-2022	17-Nov-2022	✓
<b>Soil Glass Jar - Unpreserved (EG005T)</b> SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	26-May-2022	17-Nov-2022	✓	26-May-2022	17-Nov-2022	✓
<b>EG035T: Total Recoverable Mercury by FIMS</b>								
<b>Soil Glass Jar - Unpreserved (EG035T)</b> SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	26-May-2022	17-Jun-2022	✓	26-May-2022	17-Jun-2022	✓
<b>Soil Glass Jar - Unpreserved (EG035T)</b> SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	26-May-2022	18-Jun-2022	✓	26-May-2022	18-Jun-2022	✓
<b>EG048: Hexavalent Chromium (Alkaline Digest)</b>								
<b>Soil Glass Jar - Unpreserved (EG048G)</b> SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	26-May-2022	17-Jun-2022	✓	28-May-2022	02-Jun-2022	✓
<b>Soil Glass Jar - Unpreserved (EG048G)</b> SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	26-May-2022	18-Jun-2022	✓	28-May-2022	02-Jun-2022	✓
<b>EK026SF: Total CN by Segmented Flow Analyser</b>								
<b>Soil Glass Jar - Unpreserved (EK026SF)</b> SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	27-May-2022	03-Jun-2022	✓	30-May-2022	10-Jun-2022	✓
<b>Soil Glass Jar - Unpreserved (EK026SF)</b> SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	27-May-2022	04-Jun-2022	✓	30-May-2022	10-Jun-2022	✓
<b>EK040T: Fluoride Total</b>								
<b>Soil Glass Jar - Unpreserved (EK040T)</b> SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	26-May-2022	17-Jun-2022	✓	30-May-2022	17-Jun-2022	✓
<b>Soil Glass Jar - Unpreserved (EK040T)</b> SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	26-May-2022	18-Jun-2022	✓	30-May-2022	18-Jun-2022	✓



Matrix: SOIL

Evaluation: \* = Holding time breach ; ✓ = Within holding time.

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
<b>EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>								
<b>Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P)</b>								
SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	26-May-2022	17-Nov-2022	✓	----	----	----
<b>Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P)</b>								
SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	26-May-2022	17-Nov-2022	✓	----	----	----
<b>EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)</b>								
<b>Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)</b>								
SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	26-May-2022	17-Nov-2022	✓	----	----	----
<b>Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)</b>								
SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	26-May-2022	17-Nov-2022	✓	----	----	----
<b>EP066: Polychlorinated Biphenyls (PCB)</b>								
<b>Soil Glass Jar - Unpreserved (EP066-EM)</b>								
SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	26-May-2022	03-Jun-2022	✓	26-May-2022	05-Jul-2022	✓
<b>Soil Glass Jar - Unpreserved (EP066-EM)</b>								
SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	26-May-2022	04-Jun-2022	✓	26-May-2022	05-Jul-2022	✓
<b>EP074A: Monocyclic Aromatic Hydrocarbons</b>								
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b>								
SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	23-May-2022	27-May-2022	✓	23-May-2022	27-May-2022	✓
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b>								
SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	23-May-2022	28-May-2022	✓	23-May-2022	28-May-2022	✓
<b>EP074H: Naphthalene</b>								
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b>								
SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	23-May-2022	27-May-2022	✓	23-May-2022	27-May-2022	✓
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b>								
SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	23-May-2022	28-May-2022	✓	23-May-2022	28-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	
<b>EP074I: Volatile Halogenated Compounds</b>								
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	23-May-2022	27-May-2022	✓	23-May-2022	27-May-2022	✓
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	23-May-2022	28-May-2022	✓	23-May-2022	28-May-2022	✓
<b>EP075A: Phenolic Compounds (Halogenated)</b>								
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b> SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	26-May-2022	03-Jun-2022	✓	26-May-2022	05-Jul-2022	✓
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b> SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	26-May-2022	04-Jun-2022	✓	26-May-2022	05-Jul-2022	✓
<b>EP075A: Phenolic Compounds (Non-halogenated)</b>								
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b> SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	26-May-2022	03-Jun-2022	✓	26-May-2022	05-Jul-2022	✓
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b> SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	26-May-2022	04-Jun-2022	✓	26-May-2022	05-Jul-2022	✓
<b>EP075B: Polynuclear Aromatic Hydrocarbons</b>								
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b> SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	26-May-2022	03-Jun-2022	✓	26-May-2022	05-Jul-2022	✓
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b> SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	26-May-2022	04-Jun-2022	✓	26-May-2022	05-Jul-2022	✓
<b>EP075I: Organochlorine Pesticides</b>								
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b> SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	26-May-2022	03-Jun-2022	✓	26-May-2022	05-Jul-2022	✓
<b>Soil Glass Jar - Unpreserved (EP075-EM)</b> SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	26-May-2022	04-Jun-2022	✓	26-May-2022	05-Jul-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		
<b>EP080/071: Total Petroleum Hydrocarbons</b>									
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	23-May-2022	27-May-2022	✓	23-May-2022	27-May-2022	✓	
<b>Soil Glass Jar - Unpreserved (EP071-EM)</b> SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	26-May-2022	03-Jun-2022	✓	26-May-2022	05-Jul-2022	✓	
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	23-May-2022	28-May-2022	✓	23-May-2022	28-May-2022	✓	
<b>Soil Glass Jar - Unpreserved (EP071-EM)</b> SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	26-May-2022	04-Jun-2022	✓	26-May-2022	05-Jul-2022	✓	
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions</b>									
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	23-May-2022	27-May-2022	✓	23-May-2022	27-May-2022	✓	
<b>Soil Glass Jar - Unpreserved (EP071-EM)</b> SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	26-May-2022	03-Jun-2022	✓	26-May-2022	05-Jul-2022	✓	
<b>Soil Glass Jar - Unpreserved (EP074-UT)</b> SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	23-May-2022	28-May-2022	✓	23-May-2022	28-May-2022	✓	
<b>Soil Glass Jar - Unpreserved (EP071-EM)</b> SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	26-May-2022	04-Jun-2022	✓	26-May-2022	05-Jul-2022	✓	
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>									
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	26-May-2022	17-Nov-2022	✓	26-May-2022	05-Jul-2022	✓	
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	26-May-2022	17-Nov-2022	✓	26-May-2022	05-Jul-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	
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>								
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	26-May-2022	17-Nov-2022	✓	26-May-2022	05-Jul-2022	✓
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	26-May-2022	17-Nov-2022	✓	26-May-2022	05-Jul-2022	✓
<b>EP231C: Perfluoroalkyl Sulfonamides</b>								
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	26-May-2022	17-Nov-2022	✓	26-May-2022	05-Jul-2022	✓
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	26-May-2022	17-Nov-2022	✓	26-May-2022	05-Jul-2022	✓
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>								
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	26-May-2022	17-Nov-2022	✓	26-May-2022	05-Jul-2022	✓
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	26-May-2022	17-Nov-2022	✓	26-May-2022	05-Jul-2022	✓
<b>EP231P: PFAS Sums</b>								
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS	20-May-2022	26-May-2022	17-Nov-2022	✓	26-May-2022	05-Jul-2022	✓
<b>HDPE Soil Jar (EP231X)</b> SX_OB_20220521_04_06_SS_Primary_ALS		21-May-2022	26-May-2022	17-Nov-2022	✓	26-May-2022	05-Jul-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



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		
<b>EP231A: Perfluoroalkyl Sulfonic Acids</b>									
<b>HDPE (no PTFE) (EP231X-INJ)</b>									
SX_OB_20220520_09_43_SR_Rinsate_ALS,	SX_OB_20220520_09_43_SB_Blank_ALS	20-May-2022	25-May-2022	16-Nov-2022	✓	25-May-2022	16-Nov-2022	✓	
<b>HDPE (no PTFE) (EP231X)</b>									
SX_OB_20220520_08_32_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS,	26-May-2022	27-May-2022	22-Nov-2022	✓	27-May-2022	22-Nov-2022	✓	
SX_OB_20220520_12_10_SS_Primary_ALS,	SX_OB_20220520_16_34_SS_Triplicate_ALS,								
SX_IB_20220520_16_38_SS_Primary_ALS,	SX_OB_20220520_16_43_SS_Primary_ALS,								
SX_OB_20220520_20_06_SS_Primary_ALS,	SX_OB_20220520_23_59_SS_Primary_ALS,								
SX_OB_20220521_04_06_SS_Primary_ALS,	SX_OB_20220520_08_32_SS_Primary_ALS,								
SX_OB_20220520_08_34_SS_Duplicate_ALS,	SX_OB_20220520_12_10_SS_Primary_ALS,								
SX_OB_20220520_16_34_SS_Triplicate_ALS,	SX_IB_20220520_16_38_SS_Primary_ALS,								
SX_OB_20220520_16_43_SS_Primary_ALS,	SX_OB_20220520_20_06_SS_Primary_ALS,								
SX_OB_20220520_23_59_SS_Primary_ALS,	SX_OB_20220521_04_06_SS_Primary_ALS								
<b>EP231B: Perfluoroalkyl Carboxylic Acids</b>									
<b>HDPE (no PTFE) (EP231X-INJ)</b>									
SX_OB_20220520_09_43_SR_Rinsate_ALS,	SX_OB_20220520_09_43_SB_Blank_ALS	20-May-2022	25-May-2022	16-Nov-2022	✓	25-May-2022	16-Nov-2022	✓	
<b>HDPE (no PTFE) (EP231X)</b>									
SX_OB_20220520_08_32_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS,	26-May-2022	27-May-2022	22-Nov-2022	✓	27-May-2022	22-Nov-2022	✓	
SX_OB_20220520_12_10_SS_Primary_ALS,	SX_OB_20220520_16_34_SS_Triplicate_ALS,								
SX_IB_20220520_16_38_SS_Primary_ALS,	SX_OB_20220520_16_43_SS_Primary_ALS,								
SX_OB_20220520_20_06_SS_Primary_ALS,	SX_OB_20220520_23_59_SS_Primary_ALS,								
SX_OB_20220521_04_06_SS_Primary_ALS,	SX_OB_20220520_08_32_SS_Primary_ALS,								
SX_OB_20220520_08_34_SS_Duplicate_ALS,	SX_OB_20220520_12_10_SS_Primary_ALS,								
SX_OB_20220520_16_34_SS_Triplicate_ALS,	SX_IB_20220520_16_38_SS_Primary_ALS,								
SX_OB_20220520_16_43_SS_Primary_ALS,	SX_OB_20220520_20_06_SS_Primary_ALS,								
SX_OB_20220520_23_59_SS_Primary_ALS,	SX_OB_20220521_04_06_SS_Primary_ALS								
<b>EP231C: Perfluoroalkyl Sulfonamides</b>									
<b>HDPE (no PTFE) (EP231X-INJ)</b>									
SX_OB_20220520_09_43_SR_Rinsate_ALS,	SX_OB_20220520_09_43_SB_Blank_ALS	20-May-2022	25-May-2022	16-Nov-2022	✓	25-May-2022	16-Nov-2022	✓	
<b>HDPE (no PTFE) (EP231X)</b>									
SX_OB_20220520_08_32_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS,	26-May-2022	27-May-2022	22-Nov-2022	✓	27-May-2022	22-Nov-2022	✓	
SX_OB_20220520_12_10_SS_Primary_ALS,	SX_OB_20220520_16_34_SS_Triplicate_ALS,								
SX_IB_20220520_16_38_SS_Primary_ALS,	SX_OB_20220520_16_43_SS_Primary_ALS,								
SX_OB_20220520_20_06_SS_Primary_ALS,	SX_OB_20220520_23_59_SS_Primary_ALS,								
SX_OB_20220521_04_06_SS_Primary_ALS,	SX_OB_20220520_08_32_SS_Primary_ALS,								
SX_OB_20220520_08_34_SS_Duplicate_ALS,	SX_OB_20220520_12_10_SS_Primary_ALS,								
SX_OB_20220520_16_34_SS_Triplicate_ALS,	SX_IB_20220520_16_38_SS_Primary_ALS,								
SX_OB_20220520_16_43_SS_Primary_ALS,	SX_OB_20220520_20_06_SS_Primary_ALS,								
SX_OB_20220520_23_59_SS_Primary_ALS,	SX_OB_20220521_04_06_SS_Primary_ALS								



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		
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>									
<b>HDPE (no PTFE) (EP231X-INJ)</b>									
SX_OB_20220520_09_43_SR_Rinsate_ALS,	SX_OB_20220520_09_43_SB_Blank_ALS	20-May-2022	25-May-2022	16-Nov-2022	✓	25-May-2022	16-Nov-2022	✓	
<b>HDPE (no PTFE) (EP231X)</b>									
SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS, SX_OB_20220521_04_06_SS_Primary_ALS, SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS, SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS, SX_OB_20220521_04_06_SS_Primary_ALS	26-May-2022	27-May-2022	22-Nov-2022	✓	27-May-2022	22-Nov-2022	✓	
<b>EP231P: PFAS Sums</b>									
<b>HDPE (no PTFE) (EP231X-INJ)</b>									
SX_OB_20220520_09_43_SR_Rinsate_ALS,	SX_OB_20220520_09_43_SB_Blank_ALS	20-May-2022	25-May-2022	16-Nov-2022	✓	25-May-2022	16-Nov-2022	✓	
<b>HDPE (no PTFE) (EP231X)</b>									
SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS, SX_OB_20220521_04_06_SS_Primary_ALS, SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS,	SX_OB_20220520_08_34_SS_Duplicate_ALS, SX_OB_20220520_16_34_SS_Triplicate_ALS, SX_OB_20220520_16_43_SS_Primary_ALS, SX_OB_20220520_23_59_SS_Primary_ALS, SX_OB_20220520_08_32_SS_Primary_ALS, SX_OB_20220520_12_10_SS_Primary_ALS, SX_IB_20220520_16_38_SS_Primary_ALS, SX_OB_20220520_20_06_SS_Primary_ALS, SX_OB_20220521_04_06_SS_Primary_ALS	26-May-2022	27-May-2022	22-Nov-2022	✓	27-May-2022	22-Nov-2022	✓	



## Quality Control Parameter Frequency Compliance

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

Matrix: **SOIL**

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

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Reaular	Actual	Expected	Evaluation	
<b>Laboratory Duplicates (DUP)</b>							
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	1	9	11.11	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	1	9	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	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	4	40	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	6	40	15.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	9	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	9	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
<b>Laboratory Control Samples (LCS)</b>							
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	9	11.11	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	9	11.11	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	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
<b>Method Blanks (MB)</b>							
Deionised Water Leach - Plastic Leaching Vessel	EN60-DIa-P	1	15	6.67	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	9	11.11	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	9	11.11	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	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	9	11.11	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	Method	Count		Rate (%)			Quality Control Specification
		QC	Reular	Actual	Expected	Evaluation	
<b>Analytical Methods</b>							
<b>Matrix Spikes (MS)</b>							
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	9	11.11	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	9	11.11	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	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	3	40	7.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	9	11.11	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	Method	Count		Rate (%)			Quality Control Specification
		QC	Reular	Actual	Expected	Evaluation	
<b>Analytical Methods</b>							
<b>Laboratory Duplicates (DUP)</b>							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	33	12.12	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	5	20.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
<b>Laboratory Control Samples (LCS)</b>							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	33	6.06	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
<b>Method Blanks (MB)</b>							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	33	6.06	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	5	20.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
<b>Matrix Spikes (MS)</b>							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	33	6.06	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	5	20.00	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 CaCl <sub>2</sub> 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 CaCl <sub>2</sub> 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 (SnCl <sub>2</sub> ) (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 SnCl <sub>2</sub> 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-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 CaCl <sub>2</sub> extract	EA001-PR	SOIL	In house: Referenced to Rayment and Lyons 4B1, 10 g of soil is mixed with 50 mL of 0.01M CaCl <sub>2</sub> 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, Na <sub>2</sub> SO <sub>4</sub> 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.





<i>Preparation Methods</i>	<i>Method</i>	<i>Matrix</i>	<i>Method Descriptions</i>
QuEChERS 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.