

TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	C02.0220220518150428_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	4
Approx. Source Tunnel Chainage From	522	Approx. Source Tunnel Chainage To	549
Approx. Rings From	229	Approx. Rings To	232
Foaming Agent	TamSoil 287AC	Water Source	Potable (City West Water)
For BSF Holding Bay No:	C02.02	Start of Filling From (Time / date)	05/05/2022
Tonnes Put in Holding Bay No:	5087.09	Finish of Filling (Time / Date)	07/05/2022
Classified Volume (LCM)	3179.43	Spoil Classification Decision	NPIW Containment
Sampling Ratio (samples per LCM)	1: 289.04	Approx. Bank Cubic Meters (BCM)	5160.63

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_20220505_20_09_SS_Primary_EUF	SX_OB_20220506_07_59_SS_Duplicate_ALS	SX_OB_20220506_20_06_SS_Primary_EUF
SX_OB_20220506_00_01_SS_Primary_ALS	SX_OB_20220506_08_00_SS_Triplicate_EUF	SX_OB_20220507_00_06_SS_Primary_ALS
SX_OB_20220506_04_02_SS_Primary_EUF	SX_OB_20220506_11_54_SS_Primary_EUF	SX_OB_20220507_04_11_SS_Primary_EUF
SX_OB_20220506_07_58_SS_Primary_ALS	SX_OB_20220506_16_07_SS_Primary_ALS	
Total Sample Numbers	11	Ratio Acceptable
Primary Sample Numbers	9	Yes
Classified Volume (LCM)	3179.43 m ³	
Volume: Sample Number Ratio (Samples per LCM)	1: 289.04	

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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>	No
<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 <75% of the containment criteria?</p> <p>If the answer is Yes, go to C. If the answer is No, go to D.</p>	Yes
<p>C. If the answer to B is Yes, then was testing of spoil for this Holding Bay reduced to two primary samples per bay plus QC samples (Minimum Testing Regime) as allowed by the SAQP (See SAQP Section 6.2.7)?</p>	No
<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>	NA
<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>	Yes – See section 4
<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>	No

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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

Need for IWRG 621.1 or 655.1 Testing	
A. Is Spoil in this Holding Bay from a Zone of Exception or Anomalous and required testing for IWRG 621.1?	No
B. Is IWRG 621.1 testing required for spoil in this Holding Bay, because prior to this Holding Bay, less than 10 Holding Bays of spoil have been tested from this Domain?	No
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?	Yes
D. Is testing pursuant to IWRG 655.1 required for spoil in this Holding Bay, because the spoil comes from Exception Zone 3 (See SAQP Section 5.4)?	No
E. Has spoil testing for IWRG 621.1 Parameters been triggered by results of spoil water tests for previous Holding Bays of spoil from this geological domain?	No
Outcome from IWRG 621.1 testing (if needed)	
F. If Yes to one or more Questions A, B, C or E, (and not NOC< applicable background concentrations) then do test results for IWRG 621.1 (see Table 3.4-2) prohibit NPIW Containment as a spoil Classification Outcome? If no to all of Questions A, B, C and E, then respond NA to this question.	No
Outcome from IWRG 655.1 testing (if needed)	
G. If Yes to Questions D, then do test results for IWRG 655.1 (see Table 3.4-3) permit NPIW Containment as a spoil Classification Outcome? If no to Question D, respond NA to this question	NA
Outcome from PFAS Testing	
H. Do test results for PFAS (see Table 3.4-4 below) permit NPIW Containment as a spoil Classification Outcome?	Yes
<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>	
Notes:	
<ol style="list-style-type: none"> 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 	

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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	11*	9	1: 289.04	11	10	25.91	32.11	52	20	NPIW-Containment - considered to be naturally occurring chemical, see comment 1 (Section 4)
Copper	mg/kg	5	11*	9	1: 289.04	11	35	70.64	81.3	110	100	NPIW-Containment
Nickel	mg/kg	5	11*	9	1: 289.04	11	86	206.1	241.5	330	60	NPIW-Containment - considered to be naturally occurring chemical, see comment 1 (Section 4)
Zinc	mg/kg	5	11*	9	1: 289.04	11	65	134.5	158.4	220	200	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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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	11*	9	0	N/A	N/A	N/A	<5	N/A	NPIW-Containment
Total PFOA	ug/kg	5	11*	9	0	N/A	N/A	N/A	<5	N/A	NPIW-Containment
Total PFHxS	ug/kg	5	11*	9	0	N/A	N/A	N/A	<5	N/A	NPIW-Containment
ASLP (pH= 5) PFAS Concentrations											
PFOA	ug/L	0.01	11*	9	0	N/A	N/A	N/A	<0.01	56	NPIW-Containment
PFOS+PFHxS	ug/L	0.01	11*	9	0	N/A	N/A	N/A	<0.01	7	NPIW-Containment
ASLP (pH= 7) PFAS Concentrations											
PFOA	ug/L	0.01	11*	9	0	N/A	N/A	N/A	<0.01	56	NPIW-Containment
PFOS+PFHxS	ug/L	0.01	11*	9	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"> 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"> a. Arsenic – <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"> 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. <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> b. Nickel – <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"> 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). 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). 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.

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	<p style="text-align: center;">iv. Enriched nickel concentrations also corresponded with enriched copper (Tvo2 soil and rock) and zinc (all units) indicating that the nickel is likely associated with geochemical enrichment rather than added contamination. Golder therefore concluded that the nickel is likely associated with geochemical enrichment rather than added contamination.</p> <p>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.</p>
2.	Default testing regime was implemented for all samples collected for the spoil in this holding bay as a determination has not been made regarding the reduced sampling scope.
3.	Test result outcomes can lead to two classification possibilities; however, the classification decision follows the preference of the waste management hierarchy.
4.	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.
5.	Loose Cubic metres (LCM) to mass (tonnes) conversion ratio used is 1 LCM:1.6 tonnes
6.	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.
7.	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.
8.	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.

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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
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								
2,000	400	20,000		2,000	6,000	300	4,000	12,000
EPA Victoria IWRG621 Category C Leached Upper Limits								
500	100	5,000		500	1,500	75	1,000	3,000
EPA Victoria IWRG621 Category C 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
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF	M22-My0015417	5/05/2022	886059	MGT	Normal		26	<0.4	83	150	<1	<5	<0.1	<5	230
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF	M22-My0015429	5/05/2022	886059	MGT	Normal										
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF	M22-My0015441	5/05/2022	886059	MGT	Normal										
C02.02	SX_OB_20220506_00_01_SS_Primary_ALS	EM2208272011	6/05/2022	EM2208272	ALSE-Melbourne	Normal		10	<1	58	108	<1.0	<5	<0.1	<5	149
C02.02	SX_OB_20220506_00_01_SS_Primary_ALS	EM2208272022	6/05/2022	EM2208272	ALSE-Melbourne	Normal										
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF	M22-My0015420	6/05/2022	886059	MGT	Normal		24	<0.4	80	150	<1	<5	<0.1	<5	240
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF	M22-My0015432	6/05/2022	886059	MGT	Normal										
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF	M22-My0015444	6/05/2022	886059	MGT	Normal										
C02.02	SX_OB_20220506_07_58_SS_Primary_ALS	EM2208326002	6/05/2022	EM2208326	ALSE-Melbourne	Normal		20	<1	65	135	<1.0	<5	<0.1	<5	202
C02.02	SX_OB_20220506_07_58_SS_Primary_ALS	EM2208326016	6/05/2022	EM2208326	ALSE-Melbourne	Normal										
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS	EM2208326003	6/05/2022	EM2208326	ALSE-Melbourne	Field_D	EM2208379012	22	<1	78	138	<1.0	<5	<0.1	<5	230
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS	EM2208326017	6/05/2022	EM2208326	ALSE-Melbourne	Field_D	EM2208379035									
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF	M22-My0017205	6/05/2022	886296	MGT	Interlab_D	EM2208379012	36	<0.4	110	210	<1	<5	<0.1	<5	330
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF	M22-My0017219	6/05/2022	886296	MGT	Interlab_D	EM2208379012									
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF	M22-My0017231	6/05/2022	886296	MGT	Interlab_D	EM2208379035									
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF	M22-My0017206	6/05/2022	886296	MGT	Normal		27	<0.4	77	160	<1	<5	<0.1	<5	230
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF	M22-My0017220	6/05/2022	886296	MGT	Normal										
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF	M22-My0017232	6/05/2022	886296	MGT	Normal										
C02.02	SX_OB_20220506_16_07_SS_Primary_ALS	EM2208326006	6/05/2022	EM2208326	ALSE-Melbourne	Normal		24	<1	78	140	<1.0	<5	<0.1	<5	248
C02.02	SX_OB_20220506_16_07_SS_Primary_ALS	EM2208326020	6/05/2022	EM2208326	ALSE-Melbourne	Normal										
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF	M22-My0017214	6/05/2022	886296	MGT	Normal		13	<0.4	35	67	<1	8.3	<0.1	<5	86
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF	M22-My0017226	6/05/2022	886296	MGT	Normal										
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF	M22-My0017238	6/05/2022	886296	MGT	Normal										
C02.02	SX_OB_20220507_00_06_SS_Primary_ALS	EM2208326013	6/05/2022	EM2208326	ALSE-Melbourne	Normal		31	<1	55	100	<1.0	<5	<0.1	<5	172
C02.02	SX_OB_20220507_00_06_SS_Primary_ALS	EM2208326025	6/05/2022	EM2208326	ALSE-Melbourne	Normal										
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF	M22-My0017217	7/05/2022	886296	MGT	Normal		52	<0.4	58	110	<1	7.0	<0.1	<5	150
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF	M22-My0017229	7/05/2022	886296	MGT	Normal										
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF	M22-My0017241	7/05/2022	886296	MGT	Normal										

	Selenium	Silver	Tin	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(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)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	mg/kg
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Thresh	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	0.5
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Thresh																							
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Thresh																							
EPA PFAS Classification - Tunnel Zone - No option for disposal thresh																							
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)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	Indeno(1,2,3-c,d)pyrene
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF	<2	<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	<0.5
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF																						
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF																						
C02.02	SX_OB_20220506_00_01_SS_Primary_ALS	<5	<2	<10	86	<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
C02.02	SX_OB_20220506_00_01_SS_Primary_ALS																						
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF	<2	<2	<10	150			<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
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF																						
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF																						
C02.02	SX_OB_20220506_07_58_SS_Primary_ALS	<5	<2	<10	126	<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
C02.02	SX_OB_20220506_07_58_SS_Primary_ALS																						
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS	<5	<2	<10	151	<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
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS																						
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF	2.3	<2	<10	220			<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
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF																						
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF	<2	<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	<0.5
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF																						
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF																						
C02.02	SX_OB_20220506_16_07_SS_Primary_ALS	<5	<2	<10	186	<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
C02.02	SX_OB_20220506_16_07_SS_Primary_ALS																						
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF	<2	<2	<10	65			<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
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF																						
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF																						
C02.02	SX_OB_20220507_00_06_SS_Primary_ALS	<5	<2	<10	105	<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
C02.02	SX_OB_20220507_00_06_SS_Primary_ALS																						
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF	<2	<2	<10	110			<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF																						
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF																						

	PAHs				BTEX						TRH						TPH					
	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	C29-C36	C10-C36 (Sum of total)
EQL	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	50	50
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Thresh																						
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Thresh																						
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Thresh																						
EPA PFAS Classification - Tunnel Zone - No option for disposal thresho																						
EPA Victoria IWRG621 Category B Leached Upper Limits																						
EPA Victoria IWRG621 Category B Upper Limits				400	16													2,600				40,000
EPA Victoria IWRG621 Category C Leached Upper Limits																						
EPA Victoria IWRG621 Category C Upper Limits				100	4													650				10,000
EPA Victoria IWRG621 Fill Upper Limits				20	1													100				1,000

Location Code	Field ID	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	C29-C36	C10-C36 (Sum of total)
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF	<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	<50	<50
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF																						
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF																						
C02.02	SX_OB_20220506_00_01_SS_Primary_ALS	<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	<100	<50
C02.02	SX_OB_20220506_00_01_SS_Primary_ALS																						
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF	<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	<50	<50
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF																						
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF																						
C02.02	SX_OB_20220506_07_58_SS_Primary_ALS	<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	<100	<50
C02.02	SX_OB_20220506_07_58_SS_Primary_ALS																						
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS	<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	<100	<50
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS																						
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF	<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	<50	<50
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF																						
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF	<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	<50	<50
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF																						
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF																						
C02.02	SX_OB_20220506_16_07_SS_Primary_ALS	<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	<100	<50
C02.02	SX_OB_20220506_16_07_SS_Primary_ALS																						
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF	<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	<50	<50
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF																						
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF																						
C02.02	SX_OB_20220507_00_06_SS_Primary_ALS	<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	<100	<50
C02.02	SX_OB_20220507_00_06_SS_Primary_ALS																						
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF	<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	<50	<50
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF																						
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF																						

	Organochlorine Pesticides																					
	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	α-BHC	β-BHC	γ-BHC
EQL	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.03	0.03	0.05	0.05	0.05	0.05	0.05	0.05
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Thresh																						
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Thresh																						
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Thresh																						
EPA PFAS Classification - Tunnel Zone - No option for disposal thresho																						
EPA Victoria IWRG621 Category B Leached Upper Limits																						
EPA Victoria IWRG621 Category B Upper Limits			4.8				50							16				4.8				
EPA Victoria IWRG621 Category C Leached Upper Limits																						
EPA Victoria IWRG621 Category C Upper Limits			1.2				50							4				1.2				
EPA Victoria IWRG621 Fill Upper Limits																						

Location Code	Field ID	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	α-BHC	β-BHC	γ-BHC	
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF																							
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF																							
C02.02	SX_OB_20220506_00_01_SS_Primary_ALS	<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	<0.05	<0.05	<0.05	<0.05
C02.02	SX_OB_20220506_00_01_SS_Primary_ALS																							
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF																							
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF																							
C02.02	SX_OB_20220506_07_58_SS_Primary_ALS	<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	<0.05	<0.05	<0.05	<0.05
C02.02	SX_OB_20220506_07_58_SS_Primary_ALS																							
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS	<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	<0.05	<0.05	<0.05	<0.05
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS																							
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF																							
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF																							
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF																							
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF																							
C02.02	SX_OB_20220506_16_07_SS_Primary_ALS	<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	<0.05	<0.05	<0.05	<0.05
C02.02	SX_OB_20220506_16_07_SS_Primary_ALS																							
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF																							
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF																							
C02.02	SX_OB_20220507_00_06_SS_Primary_ALS	<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	<0.05	<0.05	<0.05	<0.05
C02.02	SX_OB_20220507_00_06_SS_Primary_ALS																							
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF																							
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF																							

	Phenols																					
	γ-BHC (Lindane)	Methoxychlor	Toxaphene	Organochlorine pesticides EPA Vc	Other organochlorine pesticides EPA Vc	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) EPA Vc	Phenols (non-halogenated) EPA Vc	2,4-Dimethylphenol	2-Methylphenol
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.05	0.05	0.5	0.1	0.03	0.5	0.5	1	1	0.5	1	1	0.05	5	10	0.03	0.5	20	1	20	0.5	0.2
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Thresh																						
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Thresh																						
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Thresh																						
EPA PFAS Classification - Tunnel Zone - No option for disposal thresho																						
EPA Victoria IWRG621 Category B Leached Upper Limits																						
EPA Victoria IWRG621 Category B Upper Limits					50														320	2,200		
EPA Victoria IWRG621 Category C Leached Upper Limits																						
EPA Victoria IWRG621 Category C Upper Limits					10														10	560		
EPA Victoria IWRG621 Fill Upper Limits				1															1	60		

Location Code	Field ID																						
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20			<0.5	<0.2
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF																						
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF																						
C02.02	SX_OB_20220506_00_01_SS_Primary_ALS	<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	<1.00	<20	<1	<1
C02.02	SX_OB_20220506_00_01_SS_Primary_ALS																						
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20			<0.5	<0.2
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF																						
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF																						
C02.02	SX_OB_20220506_07_58_SS_Primary_ALS	<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	<1.00	<20	<1	<1
C02.02	SX_OB_20220506_07_58_SS_Primary_ALS																						
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS	<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	<1.00	<20	<1	<1
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS																						
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20			<0.5	<0.2
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF																						
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF																						
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20			<0.5	<0.2
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF																						
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF																						
C02.02	SX_OB_20220506_16_07_SS_Primary_ALS	<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	<1.00	<20	<1	<1
C02.02	SX_OB_20220506_16_07_SS_Primary_ALS																						
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20			<0.5	<0.2
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF																						
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF																						
C02.02	SX_OB_20220507_00_06_SS_Primary_ALS	<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	<1.00	<20	<1	<1
C02.02	SX_OB_20220507_00_06_SS_Primary_ALS																						
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF	<0.05	<0.05	<0.5	<0.1	<0.1	<0.5	<0.5	<1	<1	<0.5	<1	<1		<5	<10		<0.5	<20			<0.5	<0.2
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF																						
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF																						

	2-Nitrophenol mg/kg	2,4-Dinitrophenol mg/kg	3&4-Methylphenol (m&p-cresol) mg/kg	4-Nitrophenol mg/kg	Dinoseb mg/kg	Phenol mg/kg	Phenols (Total Halogenated) mg/kg	Phenols (Total Non Halogenated) mg/kg	10:2 Fluorotelomer sulfonic acid (10:2 FTS) mg/L mg/kg	8:2 Fluorotelomer sulfonic acid (8:2 FTS) mg/L mg/kg	6:2 Fluorotelomer sulfonic acid (6:2 FTS) mg/L mg/kg	4:2 Fluorotelomer sulfonic acid (4:2 FTS) mg/L mg/kg	N-Ethyl perfluorooctane sulfonamide (NETFOSA) mg/L mg/kg	N-ethyl-perfluorooctanesulfonamide diacetic acid (NETFOASA) mg/L mg/kg	N-ethylperfluorooctanesulfonamide ethanol (NETFOSE) mg/L mg/kg
EQL	1	5	0.4	5	20	0.5	1	20	0.00001 0.005	0.00001 0.005	0.00005 0.01	0.00001 0.005	0.00005 0.005	0.00002 0.01	0.00005 0.005
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Thresh															
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Thresh															
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Thresh															
EPA PFAS Classification - Tunnel Zone - No option for disposal thresho															
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	2-Nitrophenol	2,4-Dinitrophenol	3&4-Methylphenol (m&p-cresol)	4-Nitrophenol	Dinoseb	Phenol	Phenols (Total Halogenated)	Phenols (Total Non Halogenated)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	N-Ethyl perfluorooctane sulfonamide (NETFOSA)	N-ethyl-perfluorooctanesulfonamide diacetic acid (NETFOASA)	N-ethylperfluorooctanesulfonamide ethanol (NETFOSE)
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF	<1	<5	<0.4	<5	<20	<0.5	<1	<20	<0.00001	<0.005	<0.00001	<0.005	<0.00001	<0.005	<0.00001
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF									<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF									<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220506_00_01_SS_Primary_ALS	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005
C02.02	SX_OB_20220506_00_01_SS_Primary_ALS									<0.00005		<0.00005		<0.00005		<0.00005
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF	<1	<5	<0.4	<5	<20	<0.5	<1	<20	<0.00001	<0.005	<0.00001	<0.005	<0.00001	<0.005	<0.00001
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF									<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF									<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220506_07_58_SS_Primary_ALS	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005
C02.02	SX_OB_20220506_07_58_SS_Primary_ALS									<0.00005		<0.00005		<0.00005		<0.00005
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS									<0.00005		<0.00005		<0.00005		<0.00005
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS									<0.00005		<0.00005		<0.00005		<0.00005
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF	<1	<5	<0.4	<5	<20	<0.5	<1	<20	<0.00001	<0.005	<0.00001	<0.005	<0.00001	<0.005	<0.00001
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF									<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF									<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF	<1	<5	<0.4	<5	<20	<0.5	<1	<20	<0.00001	<0.005	<0.00001	<0.005	<0.00001	<0.005	<0.00001
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF									<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF									<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220506_16_07_SS_Primary_ALS	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005
C02.02	SX_OB_20220506_16_07_SS_Primary_ALS									<0.00005		<0.00005		<0.00005		<0.00005
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF	<1	<5	<0.4	<5	<20	<0.5	<1	<20	<0.00001	<0.005	<0.00001	<0.005	<0.00001	<0.005	<0.00001
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF									<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF									<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220507_00_06_SS_Primary_ALS	<1	<5	<1	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005
C02.02	SX_OB_20220507_00_06_SS_Primary_ALS									<0.00005		<0.00005		<0.00005		<0.00005
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF	<1	<5	<0.4	<5	<20	<0.5	<1	<20	<0.00001	<0.005	<0.00001	<0.005	<0.00001	<0.005	<0.00001
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF									<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF									<0.00001		<0.00001		<0.00001		<0.00001

	N-Methyl perfluorooctane sulfonamide (NMeFOSA)		N-methylperfluorooctane sulfonamidoacetic acid (NMeFOSAA)		N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)		Perfluorobutanoic acid (PFBA)		Perfluorobutane sulfonic acid (PFBS)		Perfluorodecanoic acid (PFDA)		Perfluorododecanoic acid (PFDoDA)		Perfluorodecane sulfonic acid (PFDS)		Perfluoroheptanoic acid (PFHpA)		Perfluoroheptane sulfonic acid (PFHps)		Perfluorohexanoic acid (PFHxA)	
	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg
EQL	0.00005	0.005	0.00002	0.01	0.00005	0.005	0.00005	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Thresh																						
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Thresh																						
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Thresh																						
EPA PFAS Classification - Tunnel Zone - No option for disposal thresho																						
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	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF		<0.005		<0.01		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF	<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF	<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220506_00_01_SS_Primary_ALS	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00001	<0.005	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
C02.02	SX_OB_20220506_00_01_SS_Primary_ALS	<0.00005		<0.00005		<0.00005		<0.00001		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF		<0.005		<0.01		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	<0.005
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF	<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF	<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220506_07_58_SS_Primary_ALS	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00001	<0.005	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
C02.02	SX_OB_20220506_07_58_SS_Primary_ALS	<0.00005		<0.00002		<0.00005		<0.00001		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00001	<0.005	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS	<0.00005		<0.00002		<0.00005		<0.00001		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF		<0.005		<0.01		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	<0.005
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF	<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF	<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF		<0.005		<0.01		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	<0.005
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF	<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF	<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220506_16_07_SS_Primary_ALS	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00001	<0.005	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
C02.02	SX_OB_20220506_16_07_SS_Primary_ALS	<0.00005		<0.00002		<0.00005		<0.00001		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF		<0.005		<0.01		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	<0.005
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF	<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF	<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220507_00_06_SS_Primary_ALS	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00001	<0.005	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002
C02.02	SX_OB_20220507_00_06_SS_Primary_ALS	<0.00005		<0.00002		<0.00005		<0.00001		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF		<0.005		<0.01		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	<0.005
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF	<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF	<0.00005		<0.00005		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001

	Perfluorononanoic acid (PFNA)		Perfluorononanesulfonic acid (PFNS)(trace)		Perfluorooctanoic acid (PFOA)		Perfluorooctane sulfonamide (PFOSA)		Perfluoropentanoic acid (PFPeA)		Perfluoropentane sulfonic acid (PFPeS)		Perfluoropropanesulfonic acid (PFPS)		Perfluorotetradecanoic acid (PFTeDA)		Perfluorotridecanoic acid (PFTrDA)		Perfluoroundecanoic acid (PFUnDA)		Perfluorooctanesulfonic acid (PFOS)	
	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg
EQL	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00002	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Thresh					0																	
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Thresh					0.00056																	
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Thresh					0.0056																	
EPA PFAS Classification - Tunnel Zone - No option for disposal thresho					0.056																	
EPA Victoria IWRG621 Category B Leached Upper Limits																						
EPA Victoria IWRG621 Category B Upper Limits																						
EPA Victoria IWRG621 Category C Leached Upper Limits																						
EPA Victoria IWRG621 Category C Upper Limits																						
EPA Victoria IWRG621 Fill Upper Limits																						

Location Code	Field ID	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220506_00_01_SS_Primary_ALS	<0.00002	<0.0050	<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001
C02.02	SX_OB_20220506_00_01_SS_Primary_ALS	<0.00002		<0.00001		<0.00005		<0.00002		<0.00002		<0.00002		<0.00005		<0.00002		<0.00002		<0.00001		<0.00001
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	<0.005
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220506_07_58_SS_Primary_ALS	<0.00002	<0.0050	<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001
C02.02	SX_OB_20220506_07_58_SS_Primary_ALS	<0.00002		<0.00001		<0.00002		<0.00002		<0.00002		<0.00002		<0.00005		<0.00002		<0.00002		<0.00001		<0.00001
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS	<0.00002	<0.0050	<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS	<0.00002		<0.00001		<0.00002		<0.00002		<0.00002		<0.00002		<0.00005		<0.00002		<0.00002		<0.00001		<0.00001
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	<0.005
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF	<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF	<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220506_11_54_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
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220506_16_07_SS_Primary_ALS	<0.00002	<0.0050	<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001
C02.02	SX_OB_20220506_16_07_SS_Primary_ALS	<0.00002		<0.00001		<0.00002		<0.00002		<0.00002		<0.00002		<0.00005		<0.00002		<0.00002		<0.00001		<0.00001
C02.02	SX_OB_20220506_20_06_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
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220507_00_06_SS_Primary_ALS	<0.00002	<0.0050	<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00001	<0.0050	<0.00001
C02.02	SX_OB_20220507_00_06_SS_Primary_ALS	<0.00002		<0.00001		<0.00002		<0.00002		<0.00002		<0.00002		<0.00005		<0.00002		<0.00002		<0.00001		<0.00001
C02.02	SX_OB_20220507_04_11_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
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001

	Perfluorohexane sulfonic acid (PFHxS)		Sum of PFHxS and PFOS		Sum of US EPA PFAS (PFOS + PFOA)*		Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*		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
	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg												
EQL	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.005	0.00001	0.05	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Thresh			0																			
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Thresh			0.00007																			
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Thresh			0.0007																			
EPA PFAS Classification - Tunnel Zone - No option for disposal thresho			0.007																			
EPA Victoria IWRG621 Category B Leached Upper Limits																						
EPA Victoria IWRG621 Category B Upper Limits																						
EPA Victoria IWRG621 Category C Leached Upper Limits																						
EPA Victoria IWRG621 Category C Upper Limits																						
EPA Victoria IWRG621 Fill Upper Limits																						

Location Code	Field ID	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF		<0.005		<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.00001		<0.0001												
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.00001		<0.0001												
C02.02	SX_OB_20220506_00_01_SS_Primary_ALS	<0.00001	<0.0050	<0.00001	<0.0050					<0.00010	<0.0500		<0.50		<0.50					<0.50		<0.50
C02.02	SX_OB_20220506_00_01_SS_Primary_ALS	<0.00001		<0.00001						<0.00010												
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF		<0.005		<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.00001		<0.0001												
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.00001		<0.0001												
C02.02	SX_OB_20220506_07_58_SS_Primary_ALS	<0.00001	<0.0050	<0.00001	<0.0050					<0.00010	<0.0500		<0.50		<0.50					<0.50		<0.50
C02.02	SX_OB_20220506_07_58_SS_Primary_ALS	<0.00001		<0.00001						<0.00001												
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS	<0.00001	<0.0050	<0.00001	<0.0050					<0.00010	<0.0500		<0.50		<0.50					<0.50		<0.50
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS	<0.00001		<0.00001						<0.00001												
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF		<0.005		<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF	<0.00001		<0.00001		<0.00001		<0.00001		<0.0001												
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF	<0.00001		<0.00001		<0.00001		<0.00001		<0.0001												
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF		<0.005		<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.00001		<0.0001												
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.00001		<0.0001												
C02.02	SX_OB_20220506_16_07_SS_Primary_ALS	<0.00001	<0.0050	<0.00001	<0.0050					<0.00010	<0.0500		<0.50		<0.50					<0.50		<0.50
C02.02	SX_OB_20220506_16_07_SS_Primary_ALS	<0.00001		<0.00001						<0.00001												
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF		<0.005		<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.00001		<0.0001												
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.00001		<0.0001												
C02.02	SX_OB_20220507_00_06_SS_Primary_ALS	<0.00001	<0.0050	<0.00001	<0.0050					<0.00010	<0.0500		<0.50		<0.50					<0.50		<0.50
C02.02	SX_OB_20220507_00_06_SS_Primary_ALS	<0.00001		<0.00001						<0.00001												
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF		<0.005		<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.00001		<0.0001												
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF	<0.00001		<0.00001		<0.00001		<0.00001		<0.0001												

	Chlorinated Hydrocarbons																		NA			
	Chloromethane	cis-1,3-dichloropropene	Dibromomethane	Dichloromethane	Hexachlorobutadiene	Other chlorinated hydrocarbons EPA/Vic	Trichloroethene	Chlorinated hydrocarbons EPA/Vic	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
	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	UG/KG	µg/L	%	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	0.05		1	0.1
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Thresh																						
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Thresh																						
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Thresh																						
EPA PFAS Classification - Tunnel Zone - No option for disposal thresho																						
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	Chloromethane	cis-1,3-dichloropropene	Dibromomethane	Dichloromethane	Hexachlorobutadiene	Other chlorinated hydrocarbons EPA/Vic	Trichloroethene	Chlorinated hydrocarbons EPA/Vic	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
C02.02	SX_OB_20220505_20_09_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	<10		<0.1
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF																			<0.05		
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF																			<0.05		
C02.02	SX_OB_20220506_00_01_SS_Primary_ALS				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50			<0.50	<0.50	<10.0	<0.05	29.7
C02.02	SX_OB_20220506_00_01_SS_Primary_ALS																			<0.05		
C02.02	SX_OB_20220506_04_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	<10		<0.1
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF																			<0.05		
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF																			<0.05		
C02.02	SX_OB_20220506_07_58_SS_Primary_ALS				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50			<0.50	<0.50	<10.0	<0.05	32.4
C02.02	SX_OB_20220506_07_58_SS_Primary_ALS																			<0.01		
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50			<0.50	<0.50	<10.0	<0.05	35.6
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS																			<0.01		
C02.02	SX_OB_20220506_08_00_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	<10		<0.1
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF																			<0.05		
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF																			<0.05		
C02.02	SX_OB_20220506_11_54_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	<10		<0.1
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF																			<0.05		
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF																			<0.05		
C02.02	SX_OB_20220506_16_07_SS_Primary_ALS				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50			<0.50	<0.50	<10.0	<0.05	34.0
C02.02	SX_OB_20220506_16_07_SS_Primary_ALS																			<0.01		
C02.02	SX_OB_20220506_20_06_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	<10		<0.1
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF																			<0.05		
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF																			<0.05		
C02.02	SX_OB_20220507_00_06_SS_Primary_ALS				<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50			<0.50	<0.50	<10.0	<0.05	28.8
C02.02	SX_OB_20220507_00_06_SS_Primary_ALS																			<0.01		
C02.02	SX_OB_20220507_04_11_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	<10		<0.1
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF																			<0.05		
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF																			<0.05		

	PCBs						Inorganics							Halogenated Benzenes								
	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)	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
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
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Thresh																						
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Thresh																						
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Thresh																						
EPA PFAS Classification - Tunnel Zone - No option for disposal thresho																						
EPA Victoria IWRG621 Category B Leached Upper Limits																						
EPA Victoria IWRG621 Category B Upper Limits													40,000		10,000							
EPA Victoria IWRG621 Category C Leached Upper Limits																						
EPA Victoria IWRG621 Category C Upper Limits													10,000		2,500							
EPA Victoria IWRG621 Fill Upper Limits							2						450		50							

Location Code	Field ID	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)	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
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.1	<100	31	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF									5.1		5.1											
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF									8.6		6.7											
C02.02	SX_OB_20220506_00_01_SS_Primary_ALS							<0.1	1.4	5.1	9.2	5.0		110		<5	<0.50	<0.50		<0.50			<0.50
C02.02	SX_OB_20220506_00_01_SS_Primary_ALS									9.1													
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.4	<100	30	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF									5.2		5.1											
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF									8.8		6.7											
C02.02	SX_OB_20220506_07_58_SS_Primary_ALS							<0.1	1.3	5.0	9.0	5.0		<100		<5	<0.50	<0.50		<0.50			<0.50
C02.02	SX_OB_20220506_07_58_SS_Primary_ALS									8.7													
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS							<0.1	1.4	5.0	9.0	5.0		<100		<5	<0.50	<0.50		<0.50			<0.50
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS									8.7													
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					7.8	<100	35	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF									5.1		5.1											
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF									8.4		6.7											
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					8.1	<100	32	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF									5.1		5.1											
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF									8.4		6.7											
C02.02	SX_OB_20220506_16_07_SS_Primary_ALS							<0.1	1.3	5.1	9.0	5.0		<100		<5	<0.50	<0.50		<0.50			<0.50
C02.02	SX_OB_20220506_16_07_SS_Primary_ALS									8.8													
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					7.9	<100	30	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF									5.2		5.1											
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF									8.6		6.7											
C02.02	SX_OB_20220507_00_06_SS_Primary_ALS							<0.1	1.4	5.1	9.0	5.0		120		<5	<0.50	<0.50		<0.50			<0.50
C02.02	SX_OB_20220507_00_06_SS_Primary_ALS									9.1													
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					7.8	<100	31	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF									5.2		5.1											
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF									8.7		6.7											

	Halogenated Hydrocarbons					MAH						Solvents				SPOCAS	
	Iodomethane	Bromomethane	1,2-dibromoethane	Dichlorodifluoromethane	Trichlorofluoromethane	Total MAH	Monocyclic aromatic hydrocarbons EPA/Vic	1,3,5-trimethylbenzene	Styrene	Iso propylbenzene	1,2,4-trimethylbenzene	4-Methyl-2-pentanone	Acetone	Allyl chloride	Carbon disulfide	Methyl Ethyl Ketone	pH (CaCl2)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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	0.1
EPA PFAS Classification - Tunnel Zone - 2019/404 (SO 9038429) Thresh																	
EPA PFAS Classification - Tunnel Zone - 2019/405 (SO 9038560) Thresh																	
EPA PFAS Classification - Tunnel Zone - 2019/406 (SO 9038561) Thresh																	
EPA PFAS Classification - Tunnel Zone - No option for disposal thresho																	
EPA Victoria IWRG621 Category B Leached Upper Limits																	
EPA Victoria IWRG621 Category B Upper Limits							240										
EPA Victoria IWRG621 Category C Leached Upper Limits																	
EPA Victoria IWRG621 Category C Upper Limits							70										
EPA Victoria IWRG621 Fill Upper Limits							7										

Location Code	Field ID																
C02.02	SX_OB_20220505_20_09_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	
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF																
C02.02	SX_OB_20220505_20_09_SS_Primary_EUF																
C02.02	SX_OB_20220506_00_01_SS_Primary_ALS							<0.5	<0.5								7.6
C02.02	SX_OB_20220506_00_01_SS_Primary_ALS																
C02.02	SX_OB_20220506_04_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	
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF																
C02.02	SX_OB_20220506_04_02_SS_Primary_EUF																
C02.02	SX_OB_20220506_07_58_SS_Primary_ALS							<0.5	<0.5								7.6
C02.02	SX_OB_20220506_07_58_SS_Primary_ALS																
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS							<0.5	<0.5								7.6
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS																
C02.02	SX_OB_20220506_08_00_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	
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF																
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF																
C02.02	SX_OB_20220506_11_54_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	
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF																
C02.02	SX_OB_20220506_11_54_SS_Primary_EUF																
C02.02	SX_OB_20220506_16_07_SS_Primary_ALS							<0.5	<0.5								7.6
C02.02	SX_OB_20220506_16_07_SS_Primary_ALS																
C02.02	SX_OB_20220506_20_06_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	
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF																
C02.02	SX_OB_20220506_20_06_SS_Primary_EUF																
C02.02	SX_OB_20220507_00_06_SS_Primary_ALS							<0.5	<0.5								7.8
C02.02	SX_OB_20220507_00_06_SS_Primary_ALS																
C02.02	SX_OB_20220507_04_11_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	
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF																
C02.02	SX_OB_20220507_04_11_SS_Primary_EUF																

							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												
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF	5/05/2022	886059	MGT	Normal		44	<0.4	72	150	<1	<5	<0.1	<5	200	<2	<2	<10
C03.02	SX_IB_20220505_15_56_SS_Duplicate_EUF	5/05/2022	886059	MGT	Field_D	M22-My0015413	40	<0.4	61	140	<1	<5	<0.1	<5	180	<2	<2	<10
RPD							10	0	17	7	0	0	0	0	11	0	0	0
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF	5/05/2022	886059	MGT	Normal		44	<0.4	72	150	<1	<5	<0.1	<5	200	<2	<2	<10
C03.02	SX_IB_20220505_15_57_SS_Triplicate_ALS	5/05/2022	EM2208272	ALSE-Melbourne	Interlab_D	M22-My0015413	39	<1	50	111	1.6	<5	<0.1	<5	160	<5	<2	<10
RPD							12	0	36	30	46	0	0	0	22	0	0	0
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF	5/05/2022	886059	MGT	Normal													
C03.02	SX_IB_20220505_15_56_SS_Duplicate_EUF	5/05/2022	886059	MGT	Field_D	M22-My0015425												
RPD																		
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF	5/05/2022	886059	MGT	Normal													
C03.02	SX_IB_20220505_15_56_SS_Duplicate_EUF	5/05/2022	886059	MGT	Field_D	M22-My0015437												
RPD																		
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF	5/05/2022	886059	MGT	Normal													
C03.02	SX_IB_20220505_15_57_SS_Triplicate_ALS	5/05/2022	EM2208272	ALSE-Melbourne	Interlab_D	M22-My0015437												
RPD																		
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF	5/05/2022	886059	MGT	Normal		43	<0.4	69	130	<1	8.6	<0.1	<5	210	<2	<2	<10
C03.02	SX_IB_20220505_19_59_SS_Duplicate_EUF	5/05/2022	886059	MGT	Field_D	M22-My0015415	40	<0.4	64	130	<1	<5	<0.1	<5	200	<2	<2	<10
RPD							7	0	8	0	0	53	0	0	5	0	0	0
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF	5/05/2022	886059	MGT	Normal		43	<0.4	69	130	<1	8.6	<0.1	<5	210	<2	<2	<10
C03.02	SX_IB_20220505_20_00_SS_Triplicate_ALS	5/05/2022	EM2208272	ALSE-Melbourne	Interlab_D	M22-My0015415	30	<1	55	94	<1.0	<5	<0.1	<5	164	<5	<2	<10
RPD							36	0	23	32	0	53	0	0	25	0	0	0
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF	5/05/2022	886059	MGT	Normal													
C03.02	SX_IB_20220505_19_59_SS_Duplicate_EUF	5/05/2022	886059	MGT	Field_D	M22-My0015427												
RPD																		
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF	5/05/2022	886059	MGT	Normal													
C03.02	SX_IB_20220505_19_59_SS_Duplicate_EUF	5/05/2022	886059	MGT	Field_D	M22-My0015439												
RPD																		
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF	5/05/2022	886059	MGT	Normal													
C03.02	SX_IB_20220505_20_00_SS_Triplicate_ALS	5/05/2022	EM2208272	ALSE-Melbourne	Interlab_D	M22-My0015439												
RPD																		
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS	5/05/2022	EM2208272	ALSE-Melbourne	Normal		20	<1	73	119	<1.0	<5	<0.1	<5	200	<5	<2	<10
C06.02	SX_OB_20220505_08_08_SS_Duplicate_ALS	5/05/2022	EM2208272	ALSE-Melbourne	Field_D	EM2208272001	22	<1	64	124	<1.0	<5	<0.1	<5	191	<5	<2	<10
RPD							10	0	13	4	0	0	0	0	5	0	0	0
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS	5/05/2022	EM2208272	ALSE-Melbourne	Normal		20	<1	73	119	<1.0	<5	<0.1	<5	200	<5	<2	<10
C06.02	SX_OB_20220505_08_09_SS_Triplicate_EUF	5/05/2022	886059	MGT	Interlab_D	EM2208272001	23	<0.4	73	160	<1	<5	<0.1	<5	220	<2	<2	<10
RPD							14	0	0	29	0	0	0	0	10	0	0	0
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS	5/05/2022	EM2208272	ALSE-Melbourne	Normal		20	<1	73	119	<1.0	<5	<0.1	<5	200	<5	<2	<10
C06.02	SX_OB_20220505_08_09_SS_Triplicate_EUF	5/05/2022	886059	MGT	Interlab_D	EM2208272001												
RPD																		
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS	5/05/2022	EM2208272	ALSE-Melbourne	Normal													
C06.02	SX_OB_20220505_08_08_SS_Duplicate_ALS	5/05/2022	EM2208272	ALSE-Melbourne	Field_D	EM2208272014												
RPD																		
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS	5/05/2022	EM2208272	ALSE-Melbourne	Normal													
C06.02	SX_OB_20220505_08_09_SS_Triplicate_EUF	5/05/2022	886059	MGT	Interlab_D	EM2208272014												
RPD																		
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF	6/05/2022	886296	MGT	Normal		51	<0.4	85	180	<1	5.5	<0.1	<5	240	<2	<2	<10
D05.02	SX_IB_20220506_16_14_SS_Duplicate_EUF	6/05/2022	886296	MGT	Field_D	M22-My0017210	40	<0.4	69	130	<1	<5	<0.1	<5	200	<2	<2	<10
RPD							24	0	21	32	0	10	0	0	18	0	0	0
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF	6/05/2022	886296	MGT	Normal		51	<0.4	85	180	<1	5.5	<0.1	<5	240	<2	<2	<10
D05.02	SX_IB_20220506_16_14_SS_Triplicate_ALS	6/05/2022	EM2208326	ALSE-Melbourne	Interlab_D	M22-My0017210	35	<1	57	104	1.7	<5	<0.1	<5	168	<5	<2	<10
RPD							37	0	39	54	52	10	0	0	35	0	0	0
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF	6/05/2022	886296	MGT	Normal													
D05.02	SX_IB_20220506_16_14_SS_Duplicate_EUF	6/05/2022	886296	MGT	Field_D	M22-My0017222												
RPD																		
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF	6/05/2022	886296	MGT	Normal													
D05.02	SX_IB_20220506_16_14_SS_Duplicate_EUF	6/05/2022	886296	MGT	Field_D	M22-My0017234												
RPD																		
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF	6/05/2022	886296	MGT	Normal													
D05.02	SX_IB_20220506_16_14_SS_Triplicate_ALS	6/05/2022	EM2208326	ALSE-Melbourne	Interlab_D	M22-My0017234												
RPD																		
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF	6/05/2022	886296	MGT	Normal		46	<0.4	77	150	<1	<5	<0.1	<5	220	<2	<2	<10
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF	6/05/2022	886296	MGT	Field_D	M22-My0017212	38	<0.4	61	120	<1	<5	<0.1	<5	170	<2	<2	<10

							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							19	0	23	22	0	0	0	0	26	0	0	0
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF	6/05/2022	886296	MGT	Normal		46	<0.4	77	150	<1	<5	<0.1	<5	220	<2	<2	<10
D05.02	SX_IB_20220506_19_56_SS_Triplicate_ALS	6/05/2022	EM2208326	ALSE-Melbourne	Interlab_D	M22-My0017212	31	<1	54	115	1.6	<5	<0.1	<5	163	<5	<2	<10
RPD							39	0	35	26	46	0	0	0	30	0	0	0
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF	6/05/2022	886296	MGT	Normal													
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF	6/05/2022	886296	MGT	Field_D	M22-My0017224												
RPD																		
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF	6/05/2022	886296	MGT	Normal													
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF	6/05/2022	886296	MGT	Field_D	M22-My0017236												
RPD																		
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF	6/05/2022	886296	MGT	Normal													
D05.02	SX_IB_20220506_19_56_SS_Triplicate_ALS	6/05/2022	EM2208326	ALSE-Melbourne	Interlab_D	M22-My0017236												
RPD																		
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS	8/05/2022	EM2208379	ALSE-Melbourne	Normal		19	<1	70	144	<1.0	<5	<0.1	<5	224	<5	<2	<10
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS	6/05/2022	EM2208326	ALSE-Melbourne	Field_D	EM2208379012	22	<1	78	138	<1.0	<5	<0.1	<5	230	<5	<2	<10
RPD							15	0	11	4	0	0	0	0	3	0	0	0
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS	8/05/2022	EM2208379	ALSE-Melbourne	Normal		19	<1	70	144	<1.0	<5	<0.1	<5	224	<5	<2	<10
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF	6/05/2022	886296	MGT	Interlab_D	EM2208379012	36	<0.4	110	210	<1	<5	<0.1	<5	330	2.3	<2	<10
RPD							62	0	44	37	0	0	0	0	38	0	0	0
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS	8/05/2022	EM2208379	ALSE-Melbourne	Normal		19	<1	70	144	<1.0	<5	<0.1	<5	224	<5	<2	<10
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF	6/05/2022	886296	MGT	Interlab_D	EM2208379012												
RPD																		
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS	8/05/2022	EM2208379	ALSE-Melbourne	Normal													
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS	6/05/2022	EM2208326	ALSE-Melbourne	Field_D	EM2208379035												
RPD																		
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS	8/05/2022	EM2208379	ALSE-Melbourne	Normal													
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF	6/05/2022	886296	MGT	Interlab_D	EM2208379035												
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(g,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
	5	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Location Code	Field ID																					
C03.02	SX_IB_20220505_15_54_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
C03.02	SX_IB_20220505_15_56_SS_Duplicate_EUF	110		<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD		24		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C03.02	SX_IB_20220505_15_54_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
C03.02	SX_IB_20220505_15_57_SS_Triplicate_ALS	84	<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		50		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF																					
C03.02	SX_IB_20220505_15_56_SS_Duplicate_EUF																					
RPD																						
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF																					
C03.02	SX_IB_20220505_15_56_SS_Duplicate_EUF																					
RPD																						
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF																					
C03.02	SX_IB_20220505_15_57_SS_Triplicate_ALS																					
RPD																						
C03.02	SX_IB_20220505_19_58_SS_Primary_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
C03.02	SX_IB_20220505_19_59_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		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C03.02	SX_IB_20220505_19_58_SS_Primary_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
C03.02	SX_IB_20220505_20_00_SS_Triplicate_ALS	97	<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		29		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF																					
C03.02	SX_IB_20220505_19_59_SS_Duplicate_EUF																					
RPD																						
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF																					
C03.02	SX_IB_20220505_19_59_SS_Duplicate_EUF																					
RPD																						
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF																					
C03.02	SX_IB_20220505_20_00_SS_Triplicate_ALS																					
RPD																						
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS	114	<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
C06.02	SX_OB_20220505_08_08_SS_Duplicate_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		5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS	114	<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
C06.02	SX_OB_20220505_08_09_SS_Triplicate_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
RPD		20		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS	114	<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
C06.02	SX_OB_20220505_08_09_SS_Triplicate_EUF																					
RPD																						
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS																					
C06.02	SX_OB_20220505_08_08_SS_Duplicate_ALS																					
RPD																						
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS																					
C06.02	SX_OB_20220505_08_09_SS_Triplicate_EUF																					
RPD																						
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF	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	<0.5	<0.5	<0.5	<0.5
D05.02	SX_IB_20220506_16_14_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		21		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF	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	<0.5	<0.5	<0.5	<0.5
D05.02	SX_IB_20220506_16_14_SS_Triplicate_ALS	91	<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		55		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF																					
D05.02	SX_IB_20220506_16_14_SS_Duplicate_EUF																					
RPD																						
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF																					
D05.02	SX_IB_20220506_16_14_SS_Duplicate_EUF																					
RPD																						
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF																					
D05.02	SX_IB_20220506_16_14_SS_Triplicate_ALS																					
RPD																						
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF	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	<0.5	<0.5	<0.5	<0.5
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF	110		<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

		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(g,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		37			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF	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	<0.5	<0.5	<0.5	<0.5
D05.02	SX_IB_20220506_19_56_SS_Triplicate_ALS	100	<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
RPD		46			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF																						
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF																						
RPD																							
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF																						
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF																						
RPD																							
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF																						
D05.02	SX_IB_20220506_19_56_SS_Triplicate_ALS																						
RPD																							
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS	133	<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
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS	151	<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
RPD		13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS	133	<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
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF	220			<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		49			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS	133	<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
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF																						
RPD																							
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS																						
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS																						
RPD																							
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS																						
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF																						
RPD																							

*RPDs have only been considered where a concentration is greater than 1 times t

**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs fo

***Interlab Duplicates are matched on a per compound basis as methods vary be!

	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	C29-C36	C10-C36 (Sum of total)	Aldrin	Dieldrin	Aldrin + Dieldrin	
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	
	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																						
C03.02	SX_IB_20220505_15_54_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
C03.02	SX_IB_20220505_15_56_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
C03.02	SX_IB_20220505_15_54_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
C03.02	SX_IB_20220505_15_57_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
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF																						
C03.02	SX_IB_20220505_15_56_SS_Duplicate_EUF																						
RPD																							
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF																						
C03.02	SX_IB_20220505_15_56_SS_Duplicate_EUF																						
RPD																							
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF																						
C03.02	SX_IB_20220505_15_57_SS_Triplicate_ALS																						
RPD																							
C03.02	SX_IB_20220505_19_58_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
C03.02	SX_IB_20220505_19_59_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
C03.02	SX_IB_20220505_19_58_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
C03.02	SX_IB_20220505_20_00_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
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF																						
C03.02	SX_IB_20220505_19_59_SS_Duplicate_EUF																						
RPD																							
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF																						
C03.02	SX_IB_20220505_19_59_SS_Duplicate_EUF																						
RPD																							
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF																						
C03.02	SX_IB_20220505_20_00_SS_Triplicate_ALS																						
RPD																							
C06.02	SX_OB_20220505_08_06_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
C06.02	SX_OB_20220505_08_08_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
C06.02	SX_OB_20220505_08_06_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
C06.02	SX_OB_20220505_08_09_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
C06.02	SX_OB_20220505_08_06_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
C06.02	SX_OB_20220505_08_09_SS_Triplicate_EUF																						
RPD																							
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS																						
C06.02	SX_OB_20220505_08_08_SS_Duplicate_ALS																						
RPD																							
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS																						
C06.02	SX_OB_20220505_08_09_SS_Triplicate_EUF																						
RPD																							
D05.02	SX_IB_20220506_16_13_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
D05.02	SX_IB_20220506_16_14_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
D05.02	SX_IB_20220506_16_13_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
D05.02	SX_IB_20220506_16_14_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
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF																						
D05.02	SX_IB_20220506_16_14_SS_Duplicate_EUF																						
RPD																							
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF																						
D05.02	SX_IB_20220506_16_14_SS_Triplicate_ALS																						
RPD																							
D05.02	SX_IB_20220506_19_54_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
D05.02	SX_IB_20220506_19_55_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

		BTEX						TRH							TPH					Aldrin	Dieldrin	Aldrin + Dieldrin		
		PAHs (Sum of total)	Benzene	Ethylbenzene	Toluene	Xylene (o)	Xylene (m & p)	Xylene Total	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	C6-C9	C10-C14	C15-C28	C29-C36				H-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		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D05.02	SX_IB_20220506_19_54_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	<0.05
D05.02	SX_IB_20220506_19_56_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	<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	0
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF																							
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF																							
RPD																								
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF																							
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF																							
RPD																								
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF																							
D05.02	SX_IB_20220506_19_56_SS_Triplicate_ALS																							
RPD																								
B01.02	SX_OB_20220508_07_42_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	<0.30
C02.02	SX_OB_20220506_07_59_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	<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	0
B01.02	SX_OB_20220508_07_42_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	<0.30
C02.02	SX_OB_20220506_08_00_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	<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	0
B01.02	SX_OB_20220508_07_42_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	<0.30
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF																							
RPD																								
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS																							
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS																							
RPD																								
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS																							
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF																							
RPD																								

*RPDs have only been considered where a concentration is greater than 1 times t

**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs fo

***Interlab Duplicates are matched on a per compound basis as methods vary be

Organochlorine Pesticides

		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	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		0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0
D05.02	SX_IB_20220506_19_54_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
D05.02	SX_IB_20220506_19_56_SS_Triplicate_ALS	<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
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF																						
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF																						
RPD																							
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF																						
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF																						
RPD																							
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF																						
D05.02	SX_IB_20220506_19_56_SS_Triplicate_ALS																						
RPD																							
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS	<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
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS	<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
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS	<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
C02.02	SX_OB_20220506_08_00_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
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS	<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
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF																						
RPD																							
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS																						
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS																						
RPD																							
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS																						
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF																						
RPD																							

*RPDs have only been considered where a concentration is greater than 1 times t

**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs fo

***Interlab Duplicates are matched on a per compound basis as methods vary be!

		Phenols																				
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	
																						Organochlorine pesticides EPA/Vic
EQ	0.1	0.03	0.5	0.5	1	1	0.5	1	1	0.05	5	10	0.03	0.5	20	1	20	0.5	0.2	1	5	0.4
Location Code	Field ID																					
C03.02	SX_IB_20220505_15_54_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
C03.02	SX_IB_20220505_15_56_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
C03.02	SX_IB_20220505_15_54_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
C03.02	SX_IB_20220505_15_57_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
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF																					
C03.02	SX_IB_20220505_15_56_SS_Duplicate_EUF																					
RPD																						
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF																					
C03.02	SX_IB_20220505_15_56_SS_Duplicate_EUF																					
RPD																						
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF																					
C03.02	SX_IB_20220505_15_57_SS_Triplicate_ALS																					
RPD																						
C03.02	SX_IB_20220505_19_58_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
C03.02	SX_IB_20220505_19_59_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
C03.02	SX_IB_20220505_19_58_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
C03.02	SX_IB_20220505_20_00_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
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF																					
C03.02	SX_IB_20220505_19_59_SS_Duplicate_EUF																					
RPD																						
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF																					
C03.02	SX_IB_20220505_20_00_SS_Triplicate_ALS																					
RPD																						
C06.02	SX_OB_20220505_08_06_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	
C06.02	SX_OB_20220505_08_08_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
C06.02	SX_OB_20220505_08_06_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	
C06.02	SX_OB_20220505_08_09_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
C06.02	SX_OB_20220505_08_06_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	
C06.02	SX_OB_20220505_08_09_SS_Triplicate_EUF																					
RPD																						
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS																					
C06.02	SX_OB_20220505_08_08_SS_Duplicate_ALS																					
RPD																						
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS																					
C06.02	SX_OB_20220505_08_09_SS_Triplicate_EUF																					
RPD																						
D05.02	SX_IB_20220506_16_13_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
D05.02	SX_IB_20220506_16_14_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
D05.02	SX_IB_20220506_16_13_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
D05.02	SX_IB_20220506_16_14_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
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF																					
D05.02	SX_IB_20220506_16_14_SS_Duplicate_EUF																					
RPD																						
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF																					
D05.02	SX_IB_20220506_16_14_SS_Triplicate_ALS																					
RPD																						
D05.02	SX_IB_20220506_19_54_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
D05.02	SX_IB_20220506_19_55_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

		Phenols																					
		Organochlorine pesticides EPA V/C	Other organochlorine pesticides EPA V/C	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) EPA V/C	Phenols (non-halogenated) EPA V/C	2,4-Dimethylphenol	2-Methylphenol	2-Nitrophenol	2,4-Dinitrophenol	3&4-Methylphenol (m&p-cresol)
		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		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D05.02	SX_IB_20220506_19_54_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
D05.02	SX_IB_20220506_19_56_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
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF																						
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF																						
RPD																							
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF																						
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF																						
RPD																							
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF																						
D05.02	SX_IB_20220506_19_56_SS_Triplicate_ALS																						
RPD																							
B01.02	SX_OB_20220508_07_42_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
C02.02	SX_OB_20220506_07_59_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
B01.02	SX_OB_20220508_07_42_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
C02.02	SX_OB_20220506_08_00_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
B01.02	SX_OB_20220508_07_42_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
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF																						
RPD																							
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS																						
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS																						
RPD																							
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS																						
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF																						
RPD																							

*RPDs have only been considered where a concentration is greater than 1 times t

**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs fo

***Interlab Duplicates are matched on a per compound basis as methods vary be!

		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 (NEFOSAA)		N-ethylperfluorooctanesulfonamide (NEFOSE)		N-Methyl perfluorooctane sulfonamide (NMeFOSA)		N-methylperfluorooctane sulfonamide (NMeFOSE)			
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg
RPD		0	0	0	0	0		0		0		0		0		0		0		0		0		0		0
D05.02	SX_IB_20220506_19_54_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		<0.005
D05.02	SX_IB_20220506_19_56_SS_Triplicate_ALS	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0050
RPD		0	0	0				0		0		0		0		0		0		0		0		0		0
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF						<0.00001		<0.00001	<0.00005		<0.00001	<0.00001	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF						<0.00001		<0.00001	<0.00005		<0.00001	<0.00001	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005
RPD							0		0		0		0		0		0		0		0		0		0	
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF						<0.00001		<0.00001	<0.00005		<0.00001	<0.00001	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF						<0.00001		<0.00001	<0.00005		<0.00001	<0.00001	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005
RPD							0		0		0		0		0		0		0		0		0		0	
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF						<0.00001		<0.00001	<0.00005		<0.00001	<0.00001	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005
D05.02	SX_IB_20220506_19_56_SS_Triplicate_ALS						<0.00005		<0.00005	<0.00005		<0.00005	<0.00005	<0.00005		<0.00005		<0.00002		<0.00005		<0.00005		<0.00005		<0.00002
RPD							0		0		0		0		0		0		0		0		0		0	
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0050
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0050
RPD		0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0050
C02.02	SX_OB_20220506_08_00_SS_Triplicate_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		<0.005
RPD		0	0	0				0		0		0		0		0		0		0		0		0		0
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS	<5	<20	<1			<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0100	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0050	<0.00005	<0.0050
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF						<0.00001		<0.00001	<0.00005		<0.00001	<0.00001	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005
RPD							0		0		0		0		0		0		0		0		0		0	
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS						<0.00005		<0.00005	<0.00005		<0.00005	<0.00005	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS						<0.00005		<0.00005	<0.00005		<0.00005	<0.00005	<0.00005		<0.00005		<0.00002		<0.00005		<0.00005		<0.00005		<0.00002
RPD							0		0		0		0		0		0		0		0		0		0	
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS						<0.00005		<0.00005	<0.00005		<0.00005	<0.00005	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF						<0.00001		<0.00001	<0.00005		<0.00001	<0.00001	<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005		<0.00005
RPD							0		0		0		0		0		0		0		0		0		0	

*RPDs have only been considered where a concentration is greater than 1 times t
 **Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs fo
 ***Interlab Duplicates are matched on a per compound basis as methods vary be!

		PFOS/PFOA																				
		Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTeDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluoropentadecanoic acid (PFPeDA)	Perfluorohexadecanoic acid (PFHxDA)	Perfluorooctadecanoic acid (PFODoDA)	Perfluorooctanesulfonic acid (PFOS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorododecane sulfonic acid (PFDoS)	Perfluorotridecane sulfonic acid (PFTeS)	Perfluorotetradecane sulfonic acid (PFTeS)	Perfluoropentadecane sulfonic acid (PFPeS)	Perfluorohexadecane 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	mg/kg	mg/L	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/kg	
RPD		0		0		0		0		0		0		0		0		0		0		0
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF	<0.01		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005
D05.02	SX_IB_20220506_19_56_SS_Triplicate_ALS	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050
RPD		0		0		0		0		0		0		0		0		0		0		0
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	<0.00001
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF		<0.00005		<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
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	<0.00001
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF		<0.00005		<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
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF		<0.00005		<0.00005		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001		<0.00001	<0.00001
D05.02	SX_IB_20220506_19_56_SS_Triplicate_ALS		<0.00005		<0.0001		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002	<0.00002
RPD			0		0		0		0		0		0		0		0		0		0	0
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF	<0.01		<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
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS	<0.0100	<0.00005	<0.0050	<0.0001	<0.005	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050	<0.00002	<0.0050
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF		<0.00005		<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
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS		<0.00005		<0.0001		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002	<0.00002
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS		<0.00005		<0.0001		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002	<0.00002
RPD			0		0		0		0		0		0		0		0		0		0	0
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS		<0.00005		<0.0001		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002		<0.00002	<0.00002
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF		<0.00005		<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

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

		acid (PFNS)(trace)	Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonamide (PFOSA)	Perfluoropentanoic acid (PFPeA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropropanesulfonic acid (PFPrS)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorooctanesulfonic acid (PFOS)	Perfluorohexane sulfonic 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	
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF	<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	
D05.02	SX_IB_20220506_19_56_SS_Triplicate_ALS		<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050		<0.00005	<0.0050	<0.00002	<0.0050
RPD			0	0		0		0		0		0	
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF		<0.00001	<0.00005	<0.00001	<0.00001	<0.00001	<0.00001		<0.00001	<0.00001	<0.00001	<0.00001
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF		<0.00001	<0.00005	<0.00001	<0.00001	<0.00001	<0.00001		<0.00001	<0.00001	<0.00001	<0.00001
RPD			0	0		0		0		0		0	
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF		<0.00001	<0.00005	<0.00001	<0.00001	<0.00001	<0.00001		<0.00001	<0.00001	<0.00001	<0.00001
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF		<0.00001	<0.00005	<0.00001	<0.00001	<0.00001	<0.00001		<0.00001	0.00001	<0.00001	0.00001
RPD			0	0		0		0		0		0	
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF		<0.00001	<0.00005	<0.00001	<0.00001	<0.00001	<0.00001		<0.00001	<0.00001	<0.00001	<0.00001
D05.02	SX_IB_20220506_19_56_SS_Triplicate_ALS		<0.00001	<0.00002	<0.00002	<0.00002	<0.00002	<0.00005		<0.00002	<0.00002	<0.00001	<0.00001
RPD			0	0		0		0		0		0	
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS		<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050		<0.00005	<0.0050	<0.00002	<0.0050
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS		<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050		<0.00005	<0.0050	<0.00002	<0.0050
RPD			0	0		0		0		0		0	
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS		<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050		<0.00005	<0.0050	<0.00002	<0.0050
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF	<0.005		<0.005		<0.005		<0.005		<0.005		<0.005	
RPD			0	0		0		0		0		0	
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS		<0.00001	<0.0050	<0.00005	<0.0050	<0.00002	<0.0050		<0.00005	<0.0050	<0.00002	<0.0050
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF		<0.00001	<0.00005	<0.00001	<0.00001	<0.00001	<0.00001		<0.00001	<0.00001	<0.00001	<0.00001
RPD			0	0		0		0		0		0	
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS		<0.00001	<0.00005	<0.00002	<0.00002	<0.00002	<0.00005		<0.00002	<0.00002	<0.00001	<0.00001
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS		<0.00001	<0.00002	<0.00002	<0.00002	<0.00002	<0.00005		<0.00002	<0.00002	<0.00001	<0.00001
RPD			0	0		0		0		0		0	
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS		<0.00001	<0.00005	<0.00002	<0.00002	<0.00002	<0.00005		<0.00002	<0.00002	<0.00001	<0.00001
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF		<0.00001	<0.00005	<0.00001	<0.00001	<0.00001	<0.00001		<0.00001	<0.00001	<0.00001	<0.00001
RPD			0	0		0		0		0		0	

*RPDs have only been considered where a concentration is greater than 1 times t

**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs fo

***Interlab Duplicates are matched on a per compound basis as methods vary be!

		Chlorinated Hydrocarbons																				
Location Code	Field ID	Sum of US EPA PFAS (PFOS + PFOA)*		Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*		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/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
EQL		0.005	0.00001	0.005	0.00001	0.005	0.00001	0.05	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
C03.02	SX_IB_20220505_15_54_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	<0.5
C03.02	SX_IB_20220505_15_56_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	<0.5
RPD		0		0		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C03.02	SX_IB_20220505_15_54_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	<0.5
C03.02	SX_IB_20220505_15_57_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			
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF	<0.00001		<0.00001		<0.0001		<0.0001														
C03.02	SX_IB_20220505_15_56_SS_Duplicate_EUF	<0.00001		<0.00001		<0.0001		<0.0001														
RPD		0		0		0																
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF	<0.00001		<0.00001		<0.0001		<0.0001														
C03.02	SX_IB_20220505_15_56_SS_Duplicate_EUF	<0.00001		<0.00001		<0.0001		<0.0001														
RPD		0		0		0																
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF	<0.00001		<0.00001		<0.0001		<0.0001														
C03.02	SX_IB_20220505_15_57_SS_Triplicate_ALS					<0.00010																
RPD						0																
C03.02	SX_IB_20220505_19_58_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	<0.5
C03.02	SX_IB_20220505_19_59_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	<0.5
RPD		0		0		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C03.02	SX_IB_20220505_19_58_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	<0.5
C03.02	SX_IB_20220505_20_00_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			
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF	<0.00001		<0.00001		<0.0001		<0.0001														
C03.02	SX_IB_20220505_19_59_SS_Duplicate_EUF	<0.00001		<0.00001		<0.0001		<0.0001														
RPD		0		0		0																
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF	<0.00001		<0.00001		<0.0001		<0.0001														
C03.02	SX_IB_20220505_19_59_SS_Duplicate_EUF	<0.00001		<0.00001		<0.0001		<0.0001														
RPD		0		0		0																
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF	<0.00001		<0.00001		<0.0001		<0.0001														
C03.02	SX_IB_20220505_20_00_SS_Triplicate_ALS					<0.00010																
RPD						0																
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS	<0.0050				<0.00010	<0.0500	<0.50		<0.50					<0.50		<0.50	<0.50	<0.50			
C06.02	SX_OB_20220505_08_08_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			
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS	<0.0050				<0.00010	<0.0500	<0.50		<0.50					<0.50		<0.50	<0.50	<0.50			
C06.02	SX_OB_20220505_08_09_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	<0.5	<0.5	<0.5
RPD		0				0		0		0					0		0	0	0			
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS	<0.0050				<0.00010	<0.0500	<0.50		<0.50					<0.50		<0.50	<0.50	<0.50			
C06.02	SX_OB_20220505_08_09_SS_Triplicate_EUF	<0.00001		<0.00001		<0.0001		<0.0001														
RPD						0																
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS					<0.00010																
C06.02	SX_OB_20220505_08_08_SS_Duplicate_ALS					<0.00010																
RPD						0																
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS					<0.00010																
C06.02	SX_OB_20220505_08_09_SS_Triplicate_EUF	<0.00001		<0.00001		<0.0001		<0.0001														
RPD						0																
D05.02	SX_IB_20220506_16_13_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	<0.5
D05.02	SX_IB_20220506_16_14_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	<0.5
RPD		0		0		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D05.02	SX_IB_20220506_16_13_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	<0.5
D05.02	SX_IB_20220506_16_14_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			
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF		<0.00001		<0.00001		<0.0001															
D05.02	SX_IB_20220506_16_14_SS_Duplicate_EUF		<0.00001		<0.00001		<0.0001															
RPD		0		0		0																
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF		0.00006		0.00006		0.0002															
D05.02	SX_IB_20220506_16_14_SS_Duplicate_EUF		<0.00001		<0.00001		<0.0001															
RPD			143		143		67															
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF		0.00006		0.00006		0.0002															
D05.02	SX_IB_20220506_16_14_SS_Triplicate_ALS					<0.00001																
RPD						181																
D05.02	SX_IB_20220506_19_54_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	<0.5
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF	<0.005		<0.005		<0.005		<0.05	<0.5	<0.5	<0.											

		Chlorinated Hydrocarbons																			
		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		0		0		0		0		0		0		0		0		0	
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF	<0.005		<0.005		<0.005		<0.05		<0.5		<0.5		<0.5		<0.5		<0.5		<0.5	
D05.02	SX_IB_20220506_19_56_SS_Triplicate_ALS	<0.0050				<0.00010		<0.0500		<0.50		<0.50				<0.50		<0.50		<0.50	
RPD		0				0		0		0						0		0		0	
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF	<0.00001		<0.00001		<0.0001		<0.0001													
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF	<0.00001		<0.00001		<0.0001		<0.0001													
RPD		0		0		0															
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF	<0.00001		<0.00001		<0.0001		<0.0001													
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF	0.00001		0.00001		<0.0001															
RPD		0		0		0															
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF	<0.00001		<0.00001		<0.0001		<0.0001													
D05.02	SX_IB_20220506_19_56_SS_Triplicate_ALS					<0.00001															
RPD						0															
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS	<0.0050				<0.00010		<0.0500		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
C02.02	SX_OB_20220506_07_59_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	
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS	<0.0050				<0.00010		<0.0500		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF	<0.005		<0.005		<0.005		<0.05		<0.5		<0.5		<0.5		<0.5		<0.5		<0.5	
RPD		0				0		0		0				0		0		0		0	
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS	<0.0050				<0.00010		<0.0500		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF			<0.00001		<0.0001															
RPD						0															
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS					<0.00010															
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS					<0.00001															
RPD						0															
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS					<0.00010															
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF			<0.00001		<0.0001															
RPD						0															

*RPDs have only been considered where a concentration is greater than 1 times t

**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs fo

***Interlab Duplicates are matched on a per compound basis as methods vary be

		hydrocarbons														NA			PC				
		Dichloromethane	Hexachlorobutadiene	Other chlorinated hydrocarbons EPA/Vic	Trichloroethene	Chlorinated hydrocarbons EPA/Vic	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																						
C03.02	SX_IB_20220505_15_54_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	<10				<0.1	<0.1	<0.1	<0.1
C03.02	SX_IB_20220505_15_56_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	<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
C03.02	SX_IB_20220505_15_54_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	<10				<0.1	<0.1	<0.1	<0.1
C03.02	SX_IB_20220505_15_57_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	<10.0	<0.05	29.8					
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF															<0.05							
C03.02	SX_IB_20220505_15_56_SS_Duplicate_EUF															<0.05							
RPD																0							
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF															<0.05							
C03.02	SX_IB_20220505_15_56_SS_Duplicate_EUF															<0.05							
RPD																0							
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF															<0.05							
C03.02	SX_IB_20220505_15_57_SS_Triplicate_ALS																<0.05						
RPD																							
C03.02	SX_IB_20220505_19_58_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	<10				<0.1	<0.1	<0.1	<0.1
C03.02	SX_IB_20220505_19_59_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	<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
C03.02	SX_IB_20220505_19_58_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	<10				<0.1	<0.1	<0.1	<0.1
C03.02	SX_IB_20220505_20_00_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	<10.0	<0.05	28.4					
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF															<0.05							
C03.02	SX_IB_20220505_19_59_SS_Duplicate_EUF															<0.05							
RPD																0							
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF															<0.05							
C03.02	SX_IB_20220505_19_59_SS_Duplicate_EUF															<0.05							
RPD																0							
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF															<0.05							
C03.02	SX_IB_20220505_20_00_SS_Triplicate_ALS																<0.05						
RPD																							
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10.0	<0.05	34.9					
C06.02	SX_OB_20220505_08_08_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	<10.0	<0.05	33.9					
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				3			
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10.0	<0.05	34.9					
C06.02	SX_OB_20220505_08_09_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	<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							
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10.0	<0.05	34.9					
C06.02	SX_OB_20220505_08_09_SS_Triplicate_EUF															<0.05							
RPD																0							
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS																<0.05						
C06.02	SX_OB_20220505_08_08_SS_Duplicate_ALS																<0.05						
RPD																0							
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS																<0.05						
C06.02	SX_OB_20220505_08_09_SS_Triplicate_EUF																<0.05						
RPD																							
D05.02	SX_IB_20220506_16_13_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	<10				<0.1	<0.1	<0.1	<0.1
D05.02	SX_IB_20220506_16_14_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	<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
D05.02	SX_IB_20220506_16_13_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	<10				<0.1	<0.1	<0.1	<0.1
D05.02	SX_IB_20220506_16_14_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	<10.0	<0.05	27.2					
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF															<0.05							
D05.02	SX_IB_20220506_16_14_SS_Duplicate_EUF															<0.05							
RPD																0							
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF															0.2							
D05.02	SX_IB_20220506_16_14_SS_Duplicate_EUF															<0.05							
RPD																							
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF																120						
D05.02	SX_IB_20220506_16_14_SS_Triplicate_ALS																0.2						
RPD																	<0.01						
D05.02	SX_IB_20220506_19_54_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	<10				<0.1	<0.1	<0.1	<0.1
D05.02	SX_IB_20220506_19_55_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	<10				<0.1	<0.1	<0.1	<0.1

hydrocarbons																NA			PC			
Dichloromethane	Hexachlorobutadiene	Other chlorinated hydrocarbons EPA/Vc	Trichloroethene	Chlorinated hydrocarbons EPA Vc	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
D05.02	SX_IB_20220506_19_54_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	
D05.02	SX_IB_20220506_19_56_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	30.9					
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF														<0.05							
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF														<0.05							
RPD															0							
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF														<0.05							
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF														<0.05							
RPD															0							
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF														<0.05							
D05.02	SX_IB_20220506_19_56_SS_Triplicate_ALS														<0.01							
RPD																						
B01.02	SX_OB_20220508_07_42_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	35.2					
C02.02	SX_OB_20220506_07_59_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	35.6					
RPD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1					
B01.02	SX_OB_20220508_07_42_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	35.2					
C02.02	SX_OB_20220506_08_00_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	0							
B01.02	SX_OB_20220508_07_42_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	35.2					
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF														<0.05							
RPD															0							
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS														<0.05							
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS														<0.01							
RPD															0							
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS														<0.05							
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF														<0.05							
RPD																						

*RPDs have only been considered where a concentration is greater than 1 times t

**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs fo

***Interlab Duplicates are matched on a per compound basis as methods vary be!

Bs		Inorganics											Halogenated Benzenes							Halogenated Hydroca		
	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
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
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	100	1	5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Location Code	Field ID																					
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1				8.1	<100	30	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C03.02	SX_IB_20220505_15_56_SS_Duplicate_EUF	<0.1	<0.1	<0.1	<0.1				8.3	<100	31	<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	0	3	0	0	0	0	0	0	0	0	0	0	0
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1				8.1	<100	30	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C03.02	SX_IB_20220505_15_57_SS_Triplicate_ALS				<0.1	1.4	5.1	9.3	5.0	150		<5	<0.50	<0.50	<0.50	<0.50			<0.50			
RPD					0					40		0	0	0	0	0			0			
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF						5.2		5.1													
C03.02	SX_IB_20220505_15_56_SS_Duplicate_EUF						5.2		5.1													
RPD							0		0													
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF						8.8		6.7													
C03.02	SX_IB_20220505_15_56_SS_Duplicate_EUF						8.8		6.7													
RPD							0		0													
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF						8.8		6.7													
C03.02	SX_IB_20220505_15_57_SS_Triplicate_ALS						9.5															
RPD							8															
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1				8.4	<100	29	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C03.02	SX_IB_20220505_19_59_SS_Duplicate_EUF	<0.1	<0.1	<0.1	<0.1				8.2	<100	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	0	7	0	0	0	0	0	0	0	0	0	0	0
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1				8.4	<100	29	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
C03.02	SX_IB_20220505_20_00_SS_Triplicate_ALS				<0.1	1.4	5.1	9.2	5.0	140		<5	<0.50	<0.50	<0.50	<0.50			<0.50			
RPD					0					33		0	0	0	0	0			0			
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF						5.1		5.1													
C03.02	SX_IB_20220505_19_59_SS_Duplicate_EUF						5.1		5.1													
RPD							0		0													
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF						8.8		6.7													
C03.02	SX_IB_20220505_19_59_SS_Duplicate_EUF						8.8		6.7													
RPD							0		0													
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF						8.8		6.7													
C03.02	SX_IB_20220505_20_00_SS_Triplicate_ALS						9.3															
RPD							6															
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS				<0.1	1.4	5.1	9.7	5.0	140		<5	<0.50	<0.50	<0.50	<0.50			<0.50			
C06.02	SX_OB_20220505_08_08_SS_Duplicate_ALS				<0.1	1.4	5.1	9.4	5.0	130		<5	<0.50	<0.50	<0.50	<0.50			<0.50			
RPD					0	0	0	3	0	7		0	0	0	0	0			0			
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS				<0.1	1.4	5.1	9.7	5.0	140		<5	<0.50	<0.50	<0.50	<0.50			<0.50			
C06.02	SX_OB_20220505_08_09_SS_Triplicate_EUF	<0.1	<0.1	<0.1	<0.1				8.2	<100	30	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
RPD					0					33		0	0	0	0	0			0			
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS				<0.1	1.4	5.1	9.7	5.0	140		<5	<0.50	<0.50	<0.50	<0.50			<0.50			
C06.02	SX_OB_20220505_08_09_SS_Triplicate_EUF						5.1		5.1													
RPD							0		2													
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS						9.7															
C06.02	SX_OB_20220505_08_08_SS_Duplicate_ALS						9.5															
RPD							2															
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS						9.7															
C06.02	SX_OB_20220505_08_09_SS_Triplicate_EUF						7.7		6.7													
RPD							23															
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1				8.3	<100	25	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
D05.02	SX_IB_20220506_16_14_SS_Duplicate_EUF	<0.1	<0.1	<0.1	<0.1				7.7	<100	28	<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				8	0	11	0	0	0	0	0	0	0	0	0	0	0
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1				8.3	<100	25	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
D05.02	SX_IB_20220506_16_14_SS_Triplicate_ALS				<0.1	1.3	5.1	9.5	5.0	100		<5	<0.50	<0.50	<0.50	<0.50			<0.50			
RPD					0					0		0	0	0	0	0			0			
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF						5.2		5.1													
D05.02	SX_IB_20220506_16_14_SS_Duplicate_EUF						5.2		5.1													
RPD							0		0													
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF						8.6		6.7													
D05.02	SX_IB_20220506_16_14_SS_Duplicate_EUF						8.9		6.7													
RPD							3		0													
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF						8.6		6.7													
D05.02	SX_IB_20220506_16_14_SS_Triplicate_ALS						9.4															
RPD							9															
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1				7.4	<100	30	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF	<0.1	<0.1	<0.1	<0.1				8.5	<100	32	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Bs		Inorganics											Halogenated Benzenes							Halogenated Hydroca		
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	
RPD								14	0	6	0	0	0	0	0	0	0	0	0	0	0	
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF	<0.1	<0.1	<0.1	<0.1			7.4	<100	30	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
D05.02	SX_IB_20220506_19_56_SS_Triplicate_ALS				<0.1	1.5	5.1	9.4	5.0			110	<5	<0.50	<0.50	<0.50	<0.50	<0.50				
RPD				0					10		0	0	0	0	0			0				
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF					5.2			5.1													
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF					5.2			5.1													
RPD						0			0													
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF					8.9			6.7													
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF					8.9			6.7													
RPD						0			0													
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF					8.9			6.7													
D05.02	SX_IB_20220506_19_56_SS_Triplicate_ALS					9.4																
RPD						5																
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS				<0.1	1.3	5.0	9.2	5.0		<5	<0.50	<0.50		<0.50			<0.50				
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS				<0.1	1.4	5.0	9.0	5.0		<5	<0.50	<0.50		<0.50			<0.50				
RPD				0	7	0	2	0	18		0	0	0	0	0			0				
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS				<0.1	1.3	5.0	9.2	5.0		<5	<0.50	<0.50		<0.50			<0.50				
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF	<0.1	<0.1	<0.1	<0.1				7.8	<100	35	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
RPD				0					18		0	0	0	0	0			0				
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS				<0.1	1.3	5.0	9.2	5.0		<5	<0.50	<0.50		<0.50			<0.50				
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF					5.1			5.1													
RPD						2			2													
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS					9.0																
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS					8.7																
RPD						3																
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS					9.0																
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF					8.4		6.7														
RPD						7																

*RPDs have only been considered where a concentration is greater than 1 times t

**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs fo

***Interlab Duplicates are matched on a per compound basis as methods vary be

	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)
C03.02	SX_IB_20220505_15_54_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	
C03.02	SX_IB_20220505_15_56_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	
C03.02	SX_IB_20220505_15_54_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	
C03.02	SX_IB_20220505_15_57_SS_Triplicate_ALS				<0.5		<0.5								7.6
RPD							0								
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF														
C03.02	SX_IB_20220505_15_56_SS_Duplicate_EUF														
RPD															
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF														
C03.02	SX_IB_20220505_15_56_SS_Duplicate_EUF														
RPD															
C03.02	SX_IB_20220505_15_54_SS_Primary_EUF														
C03.02	SX_IB_20220505_15_57_SS_Triplicate_ALS														
RPD															
C03.02	SX_IB_20220505_19_58_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	
C03.02	SX_IB_20220505_19_59_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	
C03.02	SX_IB_20220505_19_58_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	
C03.02	SX_IB_20220505_20_00_SS_Triplicate_ALS				<0.5		<0.5								7.6
RPD							0								
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF														
C03.02	SX_IB_20220505_19_59_SS_Duplicate_EUF														
RPD															
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF														
C03.02	SX_IB_20220505_19_59_SS_Duplicate_EUF														
RPD															
C03.02	SX_IB_20220505_19_58_SS_Primary_EUF														
C03.02	SX_IB_20220505_20_00_SS_Triplicate_ALS														
RPD															
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS				<0.5		<0.5								7.9
C06.02	SX_OB_20220505_08_08_SS_Duplicate_ALS				<0.5		<0.5								7.7
RPD					0		0								3
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS				<0.5		<0.5								7.9
C06.02	SX_OB_20220505_08_09_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								
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS				<0.5		<0.5								7.9
C06.02	SX_OB_20220505_08_09_SS_Triplicate_EUF														
RPD															
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS														
C06.02	SX_OB_20220505_08_08_SS_Duplicate_ALS														
RPD															
C06.02	SX_OB_20220505_08_06_SS_Primary_ALS														
C06.02	SX_OB_20220505_08_09_SS_Triplicate_EUF														
RPD															
D05.02	SX_IB_20220506_16_13_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	
D05.02	SX_IB_20220506_16_14_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	
D05.02	SX_IB_20220506_16_13_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	
D05.02	SX_IB_20220506_16_14_SS_Triplicate_ALS				<0.5		<0.5								7.6
RPD							0								
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF														
D05.02	SX_IB_20220506_16_14_SS_Duplicate_EUF														
RPD															
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF														
D05.02	SX_IB_20220506_16_14_SS_Duplicate_EUF														
RPD															
D05.02	SX_IB_20220506_16_13_SS_Primary_EUF														
D05.02	SX_IB_20220506_16_14_SS_Triplicate_ALS														
RPD															
D05.02	SX_IB_20220506_19_54_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	
D05.02	SX_IB_20220506_19_55_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	

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		0	0	0		0	0	0	0	0	0	0	0	0	
D05.02	SX_IB_20220506_19_54_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	
D05.02	SX_IB_20220506_19_56_SS_Triplicate_ALS				<0.5		<0.5								7.8
RPD							0								
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF														
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF														
RPD															
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF														
D05.02	SX_IB_20220506_19_55_SS_Duplicate_EUF														
RPD															
D05.02	SX_IB_20220506_19_54_SS_Primary_EUF														
D05.02	SX_IB_20220506_19_56_SS_Triplicate_ALS														
RPD															
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS				<0.5		<0.5								7.8
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS				<0.5		<0.5								7.6
RPD					0		0								3
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS				<0.5		<0.5								7.8
C02.02	SX_OB_20220506_08_00_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								
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS				<0.5		<0.5								7.8
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF														
RPD															
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS														
C02.02	SX_OB_20220506_07_59_SS_Duplicate_ALS														
RPD															
B01.02	SX_OB_20220508_07_42_SS_Primary_ALS														
C02.02	SX_OB_20220506_08_00_SS_Triplicate_EUF														
RPD															

*RPDs have only been considered where a concentration is greater than 1 times t

**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs fo

***Interlab Duplicates are matched on a per compound basis as methods vary be!

TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	C02.0220220518150428_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	UCL Statistics for Uncensored Full Data Sets											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.118/05/2022 4:02:57 PM								
5	From File			WorkSheet.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10												
11	Arsenic											
12												
13	General Statistics											
14	Total Number of Observations				11		Number of Distinct Observations				10	
15							Number of Missing Observations				0	
16	Minimum				10		Mean				25.91	
17	Maximum				52		Median				24	
18	SD				11.34		Std. Error of Mean				3.42	
19	Coefficient of Variation				0.438		Skewness				1.043	
20												
21	Normal GOF Test											
22	Shapiro Wilk Test Statistic				0.924		Shapiro Wilk GOF Test					
23	5% Shapiro Wilk Critical Value				0.85		Data appear Normal at 5% Significance Level					
24	Lilliefors Test Statistic				0.189		Lilliefors GOF Test					
25	5% Lilliefors Critical Value				0.251		Data appear Normal at 5% Significance Level					
26	Data appear Normal at 5% Significance Level											
27												
28	Assuming Normal Distribution											
29	95% Normal UCL						95% UCLs (Adjusted for Skewness)					
30	95% Student's-t UCL				32.11		95% Adjusted-CLT UCL (Chen-1995)				32.69	
31							95% Modified-t UCL (Johnson-1978)				32.29	
32												
33	Gamma GOF Test											
34	A-D Test Statistic				0.279		Anderson-Darling Gamma GOF Test					
35	5% A-D Critical Value				0.731		Detected data appear Gamma Distributed at 5% Significance Level					
36	K-S Test Statistic				0.141		Kolmogorov-Smirnov Gamma GOF Test					
37	5% K-S Critical Value				0.256		Detected data appear Gamma Distributed at 5% Significance Level					
38	Detected data appear Gamma Distributed at 5% Significance Level											
39												
40	Gamma Statistics											
41	k hat (MLE)				5.847		k star (bias corrected MLE)				4.313	
42	Theta hat (MLE)				4.431		Theta star (bias corrected MLE)				6.008	
43	nu hat (MLE)				128.6		nu star (bias corrected)				94.88	
44	MLE Mean (bias corrected)				25.91		MLE Sd (bias corrected)				12.48	
45							Approximate Chi Square Value (0.05)				73.42	
46	Adjusted Level of Significance				0.0278		Adjusted Chi Square Value				70.34	
47												
48	Assuming Gamma Distribution											
49	95% Approximate Gamma UCL (use when n>=50))				33.48		95% Adjusted Gamma UCL (use when n<50)				34.95	
50												
51	Lognormal GOF Test											
52	Shapiro Wilk Test Statistic				0.959		Shapiro Wilk Lognormal GOF Test					
53	5% Shapiro Wilk Critical Value				0.85		Data appear Lognormal at 5% Significance Level					
54	Lilliefors Test Statistic				0.17		Lilliefors Lognormal GOF Test					

	A	B	C	D	E	F	G	H	I	J	K	L
55	5% Lilliefors Critical Value					0.251	Data appear Lognormal at 5% Significance Level					
56	Data appear Lognormal at 5% Significance Level											
57												
58	Lognormal Statistics											
59	Minimum of Logged Data					2.303	Mean of logged Data					3.167
60	Maximum of Logged Data					3.951	SD of logged Data					0.451
61												
62	Assuming Lognormal Distribution											
63	95% H-UCL					35.49	90% Chebyshev (MVUE) UCL					36.78
64	95% Chebyshev (MVUE) UCL					41.67	97.5% Chebyshev (MVUE) UCL					48.45
65	99% Chebyshev (MVUE) UCL					61.76						
66												
67	Nonparametric Distribution Free UCL Statistics											
68	Data appear to follow a Discernible Distribution at 5% Significance Level											
69												
70	Nonparametric Distribution Free UCLs											
71	95% CLT UCL					31.54	95% Jackknife UCL					32.11
72	95% Standard Bootstrap UCL					31.21	95% Bootstrap-t UCL					33.96
73	95% Hall's Bootstrap UCL					40.36	95% Percentile Bootstrap UCL					31.27
74	95% BCA Bootstrap UCL					32.45						
75	90% Chebyshev(Mean, Sd) UCL					36.17	95% Chebyshev(Mean, Sd) UCL					40.82
76	97.5% Chebyshev(Mean, Sd) UCL					47.27	99% Chebyshev(Mean, Sd) UCL					59.94
77												
78	Suggested UCL to Use											
79	95% Student's-t UCL					32.11						
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	Copper											
88												
89	General Statistics											
90	Total Number of Observations					11	Number of Distinct Observations					9
91							Number of Missing Observations					0
92	Minimum					35	Mean					70.64
93	Maximum					110	Median					77
94	SD					19.51	Std. Error of Mean					5.881
95	Coefficient of Variation					0.276	Skewness					0.189
96												
97	Normal GOF Test											
98	Shapiro Wilk Test Statistic					0.947	Shapiro Wilk GOF Test					
99	5% Shapiro Wilk Critical Value					0.85	Data appear Normal at 5% Significance Level					
100	Lilliefors Test Statistic					0.173	Lilliefors GOF Test					
101	5% Lilliefors Critical Value					0.251	Data appear Normal at 5% Significance Level					
102	Data appear Normal at 5% Significance Level											
103												
104	Assuming Normal Distribution											
105	95% Normal UCL						95% UCLs (Adjusted for Skewness)					
106	95% Student's-t UCL					81.3	95% Adjusted-CLT UCL (Chen-1995)					80.67
107							95% Modified-t UCL (Johnson-1978)					81.35
108												

	A	B	C	D	E	F	G	H	I	J	K	L
109	Gamma GOF Test											
110	A-D Test Statistic				0.414		Anderson-Darling Gamma GOF Test					
111	5% A-D Critical Value				0.729		Detected data appear Gamma Distributed at 5% Significance Level					
112	K-S Test Statistic				0.205		Kolmogorov-Smirnov Gamma GOF Test					
113	5% K-S Critical Value				0.255		Detected data appear Gamma Distributed at 5% Significance Level					
114	Detected data appear Gamma Distributed at 5% Significance Level											
115												
116	Gamma Statistics											
117	k hat (MLE)				13.37		k star (bias corrected MLE)				9.785	
118	Theta hat (MLE)				5.283		Theta star (bias corrected MLE)				7.219	
119	nu hat (MLE)				294.2		nu star (bias corrected)				215.3	
120	MLE Mean (bias corrected)				70.64		MLE Sd (bias corrected)				22.58	
121							Approximate Chi Square Value (0.05)				182.3	
122	Adjusted Level of Significance				0.0278		Adjusted Chi Square Value				177.4	
123												
124	Assuming Gamma Distribution											
125	95% Approximate Gamma UCL (use when n>=50))				83.4		95% Adjusted Gamma UCL (use when n<50)				85.73	
126												
127	Lognormal GOF Test											
128	Shapiro Wilk Test Statistic				0.922		Shapiro Wilk Lognormal GOF Test					
129	5% Shapiro Wilk Critical Value				0.85		Data appear Lognormal at 5% Significance Level					
130	Lilliefors Test Statistic				0.207		Lilliefors Lognormal GOF Test					
131	5% Lilliefors Critical Value				0.251		Data appear Lognormal at 5% Significance Level					
132	Data appear Lognormal at 5% Significance Level											
133												
134	Lognormal Statistics											
135	Minimum of Logged Data				3.555		Mean of logged Data				4.22	
136	Maximum of Logged Data				4.7		SD of logged Data				0.298	
137												
138	Assuming Lognormal Distribution											
139	95% H-UCL		85.44		90% Chebyshev (MVUE) UCL				90.06			
140	95% Chebyshev (MVUE) UCL		98.78		97.5% Chebyshev (MVUE) UCL				110.9			
141	99% Chebyshev (MVUE) UCL		134.7									
142												
143	Nonparametric Distribution Free UCL Statistics											
144	Data appear to follow a Discernible Distribution at 5% Significance Level											
145												
146	Nonparametric Distribution Free UCLs											
147	95% CLT UCL		80.31		95% Jackknife UCL				81.3			
148	95% Standard Bootstrap UCL		79.89		95% Bootstrap-t UCL				81.07			
149	95% Hall's Bootstrap UCL		82.14		95% Percentile Bootstrap UCL				80.09			
150	95% BCA Bootstrap UCL		80.09									
151	90% Chebyshev(Mean, Sd) UCL		88.28		95% Chebyshev(Mean, Sd) UCL				96.27			
152	97.5% Chebyshev(Mean, Sd) UCL		107.4		99% Chebyshev(Mean, Sd) UCL				129.2			
153												
154	Suggested UCL to Use											
155	95% Student's-t UCL		81.3									
156												
157	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
158	Recommendations are based upon data size, data distribution, and skewness.											
159	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
160	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
161												
162												

	A	B	C	D	E	F	G	H	I	J	K	L
163	Nickel											
164												
165	General Statistics											
166	Total Number of Observations				11		Number of Distinct Observations				9	
167							Number of Missing Observations				0	
168	Minimum				86		Mean				206.1	
169	Maximum				330		Median				230	
170	SD				64.79		Std. Error of Mean				19.54	
171	Coefficient of Variation				0.314		Skewness				-0.0351	
172												
173	Normal GOF Test											
174	Shapiro Wilk Test Statistic				0.953		Shapiro Wilk GOF Test					
175	5% Shapiro Wilk Critical Value				0.85		Data appear Normal at 5% Significance Level					
176	Lilliefors Test Statistic				0.189		Lilliefors GOF Test					
177	5% Lilliefors Critical Value				0.251		Data appear Normal at 5% Significance Level					
178	Data appear Normal at 5% Significance Level											
179												
180	Assuming Normal Distribution											
181	95% Normal UCL						95% UCLs (Adjusted for Skewness)					
182	95% Student's-t UCL				241.5		95% Adjusted-CLT UCL (Chen-1995)				238	
183							95% Modified-t UCL (Johnson-1978)				241.5	
184												
185	Gamma GOF Test											
186	A-D Test Statistic				0.449		Anderson-Darling Gamma GOF Test					
187	5% A-D Critical Value				0.73		Detected data appear Gamma Distributed at 5% Significance Level					
188	K-S Test Statistic				0.221		Kolmogorov-Smirnov Gamma GOF Test					
189	5% K-S Critical Value				0.255		Detected data appear Gamma Distributed at 5% Significance Level					
190	Detected data appear Gamma Distributed at 5% Significance Level											
191												
192	Gamma Statistics											
193	k hat (MLE)				9.656		k star (bias corrected MLE)				7.083	
194	Theta hat (MLE)				21.34		Theta star (bias corrected MLE)				29.1	
195	nu hat (MLE)				212.4		nu star (bias corrected)				155.8	
196	MLE Mean (bias corrected)				206.1		MLE Sd (bias corrected)				77.44	
197							Approximate Chi Square Value (0.05)				128	
198	Adjusted Level of Significance				0.0278		Adjusted Chi Square Value				123.9	
199												
200	Assuming Gamma Distribution											
201	95% Approximate Gamma UCL (use when n>=50))				251		95% Adjusted Gamma UCL (use when n<50)				259.3	
202												
203	Lognormal GOF Test											
204	Shapiro Wilk Test Statistic				0.904		Shapiro Wilk Lognormal GOF Test					
205	5% Shapiro Wilk Critical Value				0.85		Data appear Lognormal at 5% Significance Level					
206	Lilliefors Test Statistic				0.22		Lilliefors Lognormal GOF Test					
207	5% Lilliefors Critical Value				0.251		Data appear Lognormal at 5% Significance Level					
208	Data appear Lognormal at 5% Significance Level											
209												
210	Lognormal Statistics											
211	Minimum of Logged Data				4.454		Mean of logged Data				5.276	
212	Maximum of Logged Data				5.799		SD of logged Data				0.359	
213												
214	Assuming Lognormal Distribution											
215	95% H-UCL				261.9		90% Chebyshev (MVUE) UCL				275.3	
216	95% Chebyshev (MVUE) UCL				306.1		97.5% Chebyshev (MVUE) UCL				348.9	

	A	B	C	D	E	F	G	H	I	J	K	L
217	99% Chebyshev (MVUE) UCL					432.9						
218												
219	Nonparametric Distribution Free UCL Statistics											
220	Data appear to follow a Discernible Distribution at 5% Significance Level											
221												
222	Nonparametric Distribution Free UCLs											
223	95% CLT UCL					238.2	95% Jackknife UCL					241.5
224	95% Standard Bootstrap UCL					236.6	95% Bootstrap-t UCL					240.7
225	95% Hall's Bootstrap UCL					241.8	95% Percentile Bootstrap UCL					236.5
226	95% BCA Bootstrap UCL					234.4						
227	90% Chebyshev(Mean, Sd) UCL					264.7	95% Chebyshev(Mean, Sd) UCL					291.2
228	97.5% Chebyshev(Mean, Sd) UCL					328.1	99% Chebyshev(Mean, Sd) UCL					400.5
229												
230	Suggested UCL to Use											
231	95% Student's-t UCL					241.5						
232												
233	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
234	Recommendations are based upon data size, data distribution, and skewness.											
235	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
236	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
237												
238	Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be reliable. Chen's and Johnson's methods provide adjustments for positively skewed data sets.											
239												
240												
241												
242	Zinc											
243												
244	General Statistics											
245	Total Number of Observations					11	Number of Distinct Observations					10
246							Number of Missing Observations					0
247	Minimum					65	Mean					134.5
248	Maximum					220	Median					140
249	SD					43.89	Std. Error of Mean					13.23
250	Coefficient of Variation					0.326	Skewness					0.408
251												
252	Normal GOF Test											
253	Shapiro Wilk Test Statistic					0.975	Shapiro Wilk GOF Test					
254	5% Shapiro Wilk Critical Value					0.85	Data appear Normal at 5% Significance Level					
255	Lilliefors Test Statistic					0.171	Lilliefors GOF Test					
256	5% Lilliefors Critical Value					0.251	Data appear Normal at 5% Significance Level					
257	Data appear Normal at 5% Significance Level											
258												
259	Assuming Normal Distribution											
260	95% Normal UCL					95% UCLs (Adjusted for Skewness)						
261	95% Student's-t UCL					158.4	95% Adjusted-CLT UCL (Chen-1995)					158
262							95% Modified-t UCL (Johnson-1978)					158.7
263												
264	Gamma GOF Test											
265	A-D Test Statistic					0.184	Anderson-Darling Gamma GOF Test					
266	5% A-D Critical Value					0.729	Detected data appear Gamma Distributed at 5% Significance Level					
267	K-S Test Statistic					0.138	Kolmogorov-Smirnov Gamma GOF Test					
268	5% K-S Critical Value					0.255	Detected data appear Gamma Distributed at 5% Significance Level					
269	Detected data appear Gamma Distributed at 5% Significance Level											
270												

	A	B	C	D	E	F	G	H	I	J	K	L
271	Gamma Statistics											
272	k hat (MLE)				9.925		k star (bias corrected MLE)				7.279	
273	Theta hat (MLE)				13.55		Theta star (bias corrected MLE)				18.47	
274	nu hat (MLE)				218.3		nu star (bias corrected)				160.1	
275	MLE Mean (bias corrected)				134.5		MLE Sd (bias corrected)				49.84	
276							Approximate Chi Square Value (0.05)				131.9	
277	Adjusted Level of Significance				0.0278		Adjusted Chi Square Value				127.7	
278												
279	Assuming Gamma Distribution											
280	95% Approximate Gamma UCL (use when n>=50))				163.3		95% Adjusted Gamma UCL (use when n<50)				168.6	
281												
282	Lognormal GOF Test											
283	Shapiro Wilk Test Statistic				0.974		Shapiro Wilk Lognormal GOF Test					
284	5% Shapiro Wilk Critical Value				0.85		Data appear Lognormal at 5% Significance Level					
285	Lilliefors Test Statistic				0.151		Lilliefors Lognormal GOF Test					
286	5% Lilliefors Critical Value				0.251		Data appear Lognormal at 5% Significance Level					
287	Data appear Lognormal at 5% Significance Level											
288												
289	Lognormal Statistics											
290	Minimum of Logged Data				4.174		Mean of logged Data				4.85	
291	Maximum of Logged Data				5.394		SD of logged Data				0.344	
292												
293	Assuming Lognormal Distribution											
294	95% H-UCL				168.3		90% Chebyshev (MVUE) UCL				177.1	
295	95% Chebyshev (MVUE) UCL				196.3		97.5% Chebyshev (MVUE) UCL				222.9	
296	99% Chebyshev (MVUE) UCL				275.2							
297												
298	Nonparametric Distribution Free UCL Statistics											
299	Data appear to follow a Discernible Distribution at 5% Significance Level											
300												
301	Nonparametric Distribution Free UCLs											
302	95% CLT UCL				156.2		95% Jackknife UCL				158.4	
303	95% Standard Bootstrap UCL				154.6		95% Bootstrap-t UCL				159.9	
304	95% Hall's Bootstrap UCL				164.5		95% Percentile Bootstrap UCL				155.7	
305	95% BCA Bootstrap UCL				156.5							
306	90% Chebyshev(Mean, Sd) UCL				174.2		95% Chebyshev(Mean, Sd) UCL				192.1	
307	97.5% Chebyshev(Mean, Sd) UCL				217.1		99% Chebyshev(Mean, Sd) UCL				266.1	
308												
309	Suggested UCL to Use											
310	95% Student's-t UCL				158.4							
311												
312	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
313	Recommendations are based upon data size, data distribution, and skewness.											
314	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
315	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
316												

TBM Spoil Waste Categorisation Report

TBM Spoil Waste Cat Report No:	C02.0220220518150428_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		Project No		Project Manager		Sample(s)		ES - EP Risk	
AGON Environmental - Tunnel Spoil Testing		JC0207		Craig Trimbur		ESdat		LR - EP Risk	
Address		Project Name		EDD Format		ESdat		Handed over by	
Unit H76, 83-85 Turner St, Port Melbourne VIC 3207		WGTP-Tunnel Ref: 20220506045023-Eurofin-21		Lab Reports				finance@agonenviro.com.au LabReports.TST@agonenviro.com.au	
Contact Name		Analysis		Email for Invoice		Email for Results			
Craig Trimbur David Lawson		Spoil Sample Preparation		agonenviro.com.au		agonenviro.com.au		motherhublabresults@wglp.com.au Amrit.Kaur@agile-analytics.com.au	
Phone No		Special Directions		Purchase Order		Quote ID No			
+91 400 826 907 (Craig) +91 400 411 004 (David)		Please provide an inform lab report if finalised report has not been provided by 14 days from sample receipt. Please provide eSRN along with oter sample receipt documentation.				Agon WGTP TST			
No		Client Sample ID		Sampled Date/Time		Matrix		Containers	
								500mL Plastic 250mL Plastic 120mL Plastic 200mL Amber Glass 40mL VOA vial 500mL PFA6 Bottle Jar (Glass or HDPE) Other (please specify in Guidelines)	
								Required Turnaround Time (TAT) Please refer to page 2 to 7 for details Overnight (reporting by 9am) 2 days 3 days 5 days 7 days 10 days 15 days 20 days 30 days 45 days 60 days 90 days 120 days 180 days 240 days 360 days Other (please specify in Guidelines)	
								Simple Comments / Dangerous Goods Hazard Warning	
1	SX_OB_20220505_09_09_SS_Triplicate_EUF	05/05/2022 08:09	S	X	X	X	X	X	1
2	SX_IB_20220505_08_17_SS_Primary_EUF	05/05/2022 08:17	S	X	X	X	X	X	1
3	SX_IB_20220505_12_12_SS_Primary_EUF	05/05/2022 12:12	S	X	X	X	X	X	1
4	SX_OB_20220505_12_22_SS_Primary_EUF	05/05/2022 12:22	S	X	X	X	X	X	1
5	SX_IB_20220505_15_54_SS_Primary_EUF	05/05/2022 15:54	S	X	X	X	X	X	1
6	SX_IB_20220505_15_58_SS_Duplicate_EUF	05/05/2022 15:58	S	X	X	X	X	X	1
7	SX_IB_20220505_19_58_SS_Primary_EUF	05/05/2022 19:58	S	X	X	X	X	X	1
8	SX_IB_20220505_19_59_SS_Duplicate_EUF	05/05/2022 19:59	S	X	X	X	X	X	1
9	SX_OB_20220505_20_09_SS_Primary_EUF	05/05/2022 20:09	S	X	X	X	X	X	1
10	SX_IB_20220505_23_55_SS_Primary_EUF	05/05/2022 23:55	S	X	X	X	X	X	1
11	SX_IB_20220506_04_00_SS_Primary_EUF	06/05/2022 18:00	S	X	X	X	X	X	1
12	SX_OB_20220506_04_02_SS_Primary_EUF	06/05/2022 16:02	S	X	X	X	X	X	1
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
Total Counts				12	12	12	12	12	12

Dandenong

Time: 6/5 2.55
 Chilled: Yes (X)
 Temp: 14.7
 Correction: -0.1
 Final Temp: 14.6
 Courier TW

886059 Jake

Method of Shipment: Courier (if) Hand Delivered Postal Name: Hannah Signature: [Signature] Date: 6/5/22 Time: _____

Laboratory Use Only: Received By: _____ Signature: _____ Date: _____ Time: _____ Temperature: _____
 Received By: _____ Signature: _____ Date: _____ Time: _____ Report No: _____

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 **886059-L**
Project name **20220506045023-Eurofin-21**
Project ID **JC0927**
Received Date **May 06, 2022**

Client Sample ID			SX_OB_20220 505_08_09_SS _TriPLICATE_EU F	SX_IB_202205 05_08_17_SS _Primary_EUF	SX_IB_202205 05_12_12_SS _Primary_EUF	SX_OB_20220 505_12_22_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- My0015421	M22- My0015422	M22- My0015423	M22- My0015424
Date Sampled			May 05, 2022	May 05, 2022	May 05, 2022	May 05, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	5.1	5.1	5.1	5.1
pH (off)	0.1	pH Units	5.1	5.2	5.2	5.1
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTTrDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	65	62	94	101
13C5-PFPeA (surr.)	1	%	77	67	73	86
13C5-PFHxA (surr.)	1	%	75	72	78	66
13C4-PFHpA (surr.)	1	%	82	74	79	91
13C8-PFOA (surr.)	1	%	78	78	84	65
13C5-PFNA (surr.)	1	%	81	75	79	89
13C6-PFDA (surr.)	1	%	72	63	68	74
13C2-PFUnDA (surr.)	1	%	52	61	72	60
13C2-PFDoDA (surr.)	1	%	48	54	68	75
13C2-PFTTeDA (surr.)	1	%	17	26	78	63

Client Sample ID			SX_OB_20220 505_08_09_SS _TriPLICATE_EU F	SX_IB_202205 05_08_17_SS _Primary_EUF	SX_IB_202205 05_12_12_SS _Primary_EUF	SX_OB_20220 505_12_22_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- My0015421	M22- My0015422	M22- My0015423	M22- My0015424
Date Sampled			May 05, 2022	May 05, 2022	May 05, 2022	May 05, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	95	103	112	110
D3-N-MeFOSA (surr.)	1	%	61	91	149	137
D5-N-EtFOSA (surr.)	1	%	61	106	140	135
D7-N-MeFOSE (surr.)	1	%	90	86	84	78
D9-N-EtFOSE (surr.)	1	%	89	94	95	92
D5-N-EtFOSAA (surr.)	1	%	34	31	48	53
D3-N-MeFOSAA (surr.)	1	%	37	36	37	75
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	81	74	93	36
18O2-PFHxS (surr.)	1	%	81	96	75	86
13C8-PFOS (surr.)	1	%	72	73	87	83
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	99	102	75	110
13C2-6:2 FTSA (surr.)	1	%	66	81	112	106
13C2-8:2 FTSA (surr.)	1	%	52	63	70	101
13C2-10:2 FTSA (surr.)	1	%	55	49	69	74
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_IB_202205_05_15_54_SS_Primary_EUF	SX_IB_202205_05_15_56_SS_Duplicate_EUF	SX_IB_202205_05_19_58_SS_Primary_EUF	SX_IB_202205_05_19_59_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-My0015425	M22-My0015426	M22-My0015427	M22-My0015428
Date Sampled			May 05, 2022	May 05, 2022	May 05, 2022	May 05, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	5.1	5.1	5.1	5.1
pH (off)	0.1	pH Units	5.2	5.2	5.1	5.1
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	60	62	98	63
13C5-PFPeA (surr.)	1	%	64	68	98	68
13C5-PFHxA (surr.)	1	%	71	73	114	67
13C4-PFHpA (surr.)	1	%	76	77	124	79
13C8-PFOA (surr.)	1	%	85	83	127	81
13C5-PFNA (surr.)	1	%	76	69	139	72
13C6-PFDA (surr.)	1	%	56	75	159	64
13C2-PFUnDA (surr.)	1	%	47	61	118	73
13C2-PFDoDA (surr.)	1	%	36	60	85	62
13C2-PFTeDA (surr.)	1	%	14	32	33	38
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	80	106	161	90
D3-N-MeFOSA (surr.)	1	%	63	88	95	76
D5-N-EtFOSA (surr.)	1	%	71	95	98	93
D7-N-MeFOSE (surr.)	1	%	75	91	138	87
D9-N-EtFOSE (surr.)	1	%	68	112	139	107
D5-N-EtFOSAA (surr.)	1	%	31	37	70	42
D3-N-MeFOSAA (surr.)	1	%	17	27	79	51

Client Sample ID			SX_IB_202205_05_15_54_SS_Primary_EUF	SX_IB_202205_05_15_56_SS_Duplicate_EUF	SX_IB_202205_05_19_58_SS_Primary_EUF	SX_IB_202205_05_19_59_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-My0015425	M22-My0015426	M22-My0015427	M22-My0015428
Date Sampled			May 05, 2022	May 05, 2022	May 05, 2022	May 05, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFASs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	79	70	108	54
18O2-PFHxS (surr.)	1	%	99	86	157	113
13C8-PFOS (surr.)	1	%	70	64	117	72
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	103	102	188	115
13C2-6:2 FTSA (surr.)	1	%	69	67	125	59
13C2-8:2 FTSA (surr.)	1	%	49	57	104	53
13C2-10:2 FTSA (surr.)	1	%	49	49	82	50
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_OB_20220505_20_09_SS_Primary_EUF	SX_IB_202205_05_23_55_SS_Primary_EUF	SX_IB_202205_06_04_00_SS_Primary_EUF	SX_OB_20220506_04_02_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-My0015429	M22-My0015430	M22-My0015431	M22-My0015432
Date Sampled			May 05, 2022	May 05, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	5.1	5.1	5.1	5.1
pH (off)	0.1	pH Units	5.1	5.2	5.1	5.2

Client Sample ID			SX_OB_20220 505_20_09_SS _Primary_EUF	SX_IB_202205 05_23_55_SS _Primary_EUF	SX_IB_202205 06_04_00_SS _Primary_EUF	SX_OB_20220 506_04_02_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- My0015429	M22- My0015430	M22- My0015431	M22- My0015432
Date Sampled			May 05, 2022	May 05, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	59	60	63	65
13C5-PFPeA (surr.)	1	%	69	67	72	73
13C5-PFHxA (surr.)	1	%	66	68	75	74
13C4-PFHpA (surr.)	1	%	67	71	84	68
13C8-PFOA (surr.)	1	%	64	63	86	68
13C5-PFNA (surr.)	1	%	57	64	88	70
13C6-PFDA (surr.)	1	%	68	53	91	85
13C2-PFUnDA (surr.)	1	%	52	65	72	73
13C2-PFDoDA (surr.)	1	%	39	35	51	60
13C2-PFTeDA (surr.)	1	%	17	20	20	21
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	66	77	107	97
D3-N-MeFOSA (surr.)	1	%	58	41	67	53
D5-N-EtFOSA (surr.)	1	%	64	46	68	64
D7-N-MeFOSE (surr.)	1	%	70	81	111	109
D9-N-EtFOSE (surr.)	1	%	67	61	102	95
D5-N-EtFOSAA (surr.)	1	%	11	32	48	27
D3-N-MeFOSAA (surr.)	1	%	27	39	22	34
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoronanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			SX_OB_20220 505_20_09_SS _Primary_EUF	SX_IB_202205 05_23_55_SS _Primary_EUF	SX_IB_202205 06_04_00_SS _Primary_EUF	SX_OB_20220 506_04_02_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- My0015429	M22- My0015430	M22- My0015431	M22- My0015432
Date Sampled			May 05, 2022	May 05, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFASs)						
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	78	74	78	83
18O2-PFHxS (surr.)	1	%	79	85	98	78
13C8-PFOS (surr.)	1	%	57	57	66	66
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	85	84	89	86
13C2-6:2 FTSA (surr.)	1	%	62	69	78	59
13C2-8:2 FTSA (surr.)	1	%	45	50	73	52
13C2-10:2 FTSA (surr.)	1	%	50	25	37	46
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_OB_20220 505_08_09_SS _Triple_EU F	SX_IB_202205 05_08_17_SS _Primary_EUF	SX_IB_202205 05_12_12_SS _Primary_EUF	SX_OB_20220 505_12_22_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- My0015433	M22- My0015434	M22- My0015435	M22- My0015436
Date Sampled			May 05, 2022	May 05, 2022	May 05, 2022	May 05, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		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	6.7	6.7	6.7	6.7
pH (off)	0.1	pH Units	7.7	8.7	8.9	8.4
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			SX_OB_20220 505_08_09_SS _TriPLICATE_EU F	SX_IB_202205 05_08_17_SS _Primary_EUF	SX_IB_202205 05_12_12_SS _Primary_EUF	SX_OB_20220 505_12_22_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- My0015433	M22- My0015434	M22- My0015435	M22- My0015436
Date Sampled			May 05, 2022	May 05, 2022	May 05, 2022	May 05, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	64	65	73	66
13C5-PFPeA (surr.)	1	%	82	64	86	64
13C5-PFHxA (surr.)	1	%	77	73	80	64
13C4-PFHpA (surr.)	1	%	75	74	83	93
13C8-PFOA (surr.)	1	%	74	67	67	71
13C5-PFNA (surr.)	1	%	77	64	90	104
13C6-PFDA (surr.)	1	%	103	48	82	104
13C2-PFUnDA (surr.)	1	%	67	42	75	92
13C2-PFDoDA (surr.)	1	%	54	22	65	76
13C2-PFTeDA (surr.)	1	%	31	18	28	50
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	85	67	91	128
D3-N-MeFOSA (surr.)	1	%	48	71	45	67
D5-N-EtFOSA (surr.)	1	%	44	69	49	78
D7-N-MeFOSE (surr.)	1	%	55	59	70	106
D9-N-EtFOSE (surr.)	1	%	64	55	75	114
D5-N-EtFOSAA (surr.)	1	%	78	33	51	60
D3-N-MeFOSAA (surr.)	1	%	63	34	56	72
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	78	78	85	33
18O2-PFHxS (surr.)	1	%	84	91	92	106
13C8-PFOS (surr.)	1	%	70	54	78	89

Client Sample ID			SX_OB_20220505_08_09_SS_Triplicate_EUF	SX_IB_20220505_08_17_SS_Primary_EUF	SX_IB_20220505_12_12_SS_Primary_EUF	SX_OB_20220505_12_22_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-My0015433	M22-My0015434	M22-My0015435	M22-My0015436
Date Sampled			May 05, 2022	May 05, 2022	May 05, 2022	May 05, 2022
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	81	93	95	130
13C2-6:2 FTSA (surr.)	1	%	62	63	63	55
13C2-8:2 FTSA (surr.)	1	%	61	34	63	90
13C2-10:2 FTSA (surr.)	1	%	46	20	49	66
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_IB_20220505_15_54_SS_Primary_EUF	SX_IB_20220505_15_56_SS_Duplicate_EUF	SX_IB_20220505_19_58_SS_Primary_EUF	SX_IB_20220505_19_59_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-My0015437	M22-My0015438	M22-My0015439	M22-My0015440
Date Sampled			May 05, 2022	May 05, 2022	May 05, 2022	May 05, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		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	6.7	6.7	6.7	6.7
pH (off)	0.1	pH Units	8.8	8.8	8.8	8.8
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTTrDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	71	71	82	70

Client Sample ID			SX_IB_202205_05_15_54_SS_Primary_EUF	SX_IB_202205_05_15_56_SS_Duplicate_EUF	SX_IB_202205_05_19_58_SS_Primary_EUF	SX_IB_202205_05_19_59_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-My0015437	M22-My0015438	M22-My0015439	M22-My0015440
Date Sampled			May 05, 2022	May 05, 2022	May 05, 2022	May 05, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C5-PFPeA (surr.)	1	%	80	70	88	78
13C5-PFHxA (surr.)	1	%	81	78	83	74
13C4-PFHpA (surr.)	1	%	87	82	89	79
13C8-PFOA (surr.)	1	%	88	86	83	82
13C5-PFNA (surr.)	1	%	90	82	95	73
13C6-PFDA (surr.)	1	%	92	91	86	88
13C2-PFUnDA (surr.)	1	%	97	82	70	62
13C2-PFDoDA (surr.)	1	%	73	69	56	40
13C2-PFTeDA (surr.)	1	%	31	37	26	14
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	114	120	95	94
D3-N-MeFOSA (surr.)	1	%	79	163	96	134
D5-N-EtFOSA (surr.)	1	%	85	176	108	134
D7-N-MeFOSE (surr.)	1	%	97	122	96	94
D9-N-EtFOSE (surr.)	1	%	98	124	105	88
D5-N-EtFOSAA (surr.)	1	%	58	68	39	47
D3-N-MeFOSAA (surr.)	1	%	64	57	75	63
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	82	75	74	62
18O2-PFHxS (surr.)	1	%	87	123	109	84
13C8-PFOS (surr.)	1	%	84	75	77	60

Client Sample ID			SX_IB_202205_05_15_54_SS_Primary_EUF	SX_IB_202205_05_15_56_SS_Duplicate_EUF	SX_IB_202205_05_19_58_SS_Primary_EUF	SX_IB_202205_05_19_59_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-My0015437	M22-My0015438	M22-My0015439	M22-My0015440
Date Sampled			May 05, 2022	May 05, 2022	May 05, 2022	May 05, 2022
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	104	107	126	100
13C2-6:2 FTSA (surr.)	1	%	69	78	67	57
13C2-8:2 FTSA (surr.)	1	%	72	70	56	62
13C2-10:2 FTSA (surr.)	1	%	62	48	46	26
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_OB_20220505_20_09_SS_Primary_EUF	SX_IB_202205_05_23_55_SS_Primary_EUF	SX_IB_202205_06_04_00_SS_Primary_EUF	SX_OB_20220506_04_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-My0015441	M22-My0015442	M22-My0015443	M22-My0015444
Date Sampled			May 05, 2022	May 05, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		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	6.7	6.7	6.7	6.7
pH (off)	0.1	pH Units	8.6	8.8	8.8	8.8
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	62	68	69	70
13C5-PFPeA (surr.)	1	%	62	73	78	78

Client Sample ID			SX_OB_20220 505_20_09_SS _Primary_EUF	SX_IB_202205 05_23_55_SS _Primary_EUF	SX_IB_202205 06_04_00_SS _Primary_EUF	SX_OB_20220 506_04_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- My0015441	M22- My0015442	M22- My0015443	M22- My0015444
Date Sampled			May 05, 2022	May 05, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C5-PFHxA (surr.)	1	%	70	69	71	78
13C4-PFHpA (surr.)	1	%	72	81	68	75
13C8-PFOA (surr.)	1	%	58	64	57	59
13C5-PFNA (surr.)	1	%	66	69	57	58
13C6-PFDA (surr.)	1	%	35	71	64	68
13C2-PFUnDA (surr.)	1	%	62	50	47	59
13C2-PFDoDA (surr.)	1	%	58	31	37	44
13C2-PFTeDA (surr.)	1	%	25	13	19	20
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	81	85	55	85
D3-N-MeFOSA (surr.)	1	%	38	94	21	67
D5-N-EtFOSA (surr.)	1	%	44	90	25	66
D7-N-MeFOSE (surr.)	1	%	65	75	46	69
D9-N-EtFOSE (surr.)	1	%	73	70	47	69
D5-N-EtFOSAA (surr.)	1	%	43	25	32	20
D3-N-MeFOSAA (surr.)	1	%	12	40	36	39
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	73	77	73	77
18O2-PFHxS (surr.)	1	%	70	74	67	77
13C8-PFOS (surr.)	1	%	59	57	62	60
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			SX_OB_20220505_20_09_SS_Primary_EUF	SX_IB_20220505_23_55_SS_Primary_EUF	SX_IB_20220506_04_00_SS_Primary_EUF	SX_OB_20220506_04_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-My0015441	M22-My0015442	M22-My0015443	M22-My0015444
Date Sampled			May 05, 2022	May 05, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
13C2-4:2 FTSA (surr.)	1	%	77	92	89	94
13C2-6:2 FTSA (surr.)	1	%	47	63	54	57
13C2-8:2 FTSA (surr.)	1	%	72	56	49	39
13C2-10:2 FTSA (surr.)	1	%	67	35	30	14
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	< 0.1

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 09, 2022	0 Days
pH (Leachate fluid) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	May 09, 2022	0 Days
pH (off) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	May 09, 2022	0 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 09, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 09, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 09, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 09, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 06, 2022	

Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
Fullarton
SA 5063
Project Name: 20220506045023-Eurofin-21
Project ID: JC0927

Order No.:
Report #: 886059
Phone: 08 8338 1009
Fax:

Received: May 6, 2022 2:55 PM
Due: May 13, 2022
Priority: 5 Day
Contact Name: Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						HOLD	AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	WRG 621 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID					
1	SX_OB_20220505_08_09_S_S_Triplicate_EUF	May 05, 2022	8:09AM	Soil	M22-My0015409			X	X	X
2	SX_IB_20220505_08_17_SS_Primary_EUF	May 05, 2022	8:17AM	Soil	M22-My0015410			X	X	X
3	SX_IB_20220505_12_12_SS_Primary_EUF	May 05, 2022	12:12PM	Soil	M22-My0015411			X	X	X
4	SX_OB_20220505_12_22_S	May 05, 2022	12:22PM	Soil	M22-My0015412			X	X	X

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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						HOLD	AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	WRG 621 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
	S_Primary_EU F									
5	SX_IB_202205 05_15_54_SS _Primary_EUF	May 05, 2022	3:54PM	Soil	M22- My0015413			X	X	X
6	SX_IB_202205 05_15_56_SS _Duplicate_EU F	May 05, 2022	3:56PM	Soil	M22- My0015414			X	X	X
7	SX_IB_202205 05_19_58_SS _Primary_EUF	May 05, 2022	7:58PM	Soil	M22- My0015415			X	X	X
8	SX_IB_202205 05_19_59_SS	May 05, 2022	7:59PM	Soil	M22- My0015416			X	X	X

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Sample Detail						HOLD	AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	WRG 621 WGTTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
	05_19_59_SS_Duplicate_EU_F				My0015416					
9	SX_OB_20220505_20_09_S_S_Primary_EU_F	May 05, 2022	8:09PM	Soil	M22-My0015417			X	X	X
10	SX_IB_20220505_23_55_SS_Primary_EUF	May 05, 2022	11:55PM	Soil	M22-My0015418			X	X	X
11	SX_IB_20220506_04_00_SS_Primary_EUF	May 06, 2022	4:00PM	Soil	M22-My0015419			X	X	X
12	SX_OB_20220	May 06, 2022	4:02PM	Soil	M22-			X	X	X

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Sample Detail						HOLD	AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	WRG 621 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
	506_04_02_S S_Primary_EU F				My0015420					
13	SX_OB_20220 505_08_09_S S_Triplicate_E UF	May 05, 2022	8:09AM	AUS Leachate - pH 5.0	M22- My0015421		X		X	
14	SX_IB_202205 05_08_17_SS _Primary_EUF	May 05, 2022	8:17AM	AUS Leachate - pH 5.0	M22- My0015422		X		X	
15	SX_IB_202205 05_12_12_SS _Primary_EUF	May 05, 2022	12:12PM	AUS Leachate - pH 5.0	M22- My0015423		X		X	
16	SX_OB_20220	May 05, 2022	12:22PM	AUS Leachate	M22-		X		X	

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Sample Detail						HOLD	AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	WRG 621 WGTTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
16	SX_OB_20220505_12_22_SS_Primary_EUF	May 05, 2022	12:22PM	AUS Leachate - pH 5.0	M22-My0015424					
17	SX_IB_20220505_15_54_SS_Primary_EUF	May 05, 2022	3:54PM	AUS Leachate - pH 5.0	M22-My0015425		X		X	
18	SX_IB_20220505_15_56_SS_Duplicate_EUF	May 05, 2022	3:56PM	AUS Leachate - pH 5.0	M22-My0015426		X		X	
19	SX_IB_20220505_19_58_SS_Primary_EUF	May 05, 2022	7:58PM	AUS Leachate - pH 5.0	M22-My0015427		X		X	

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Sample Detail						HOLD	AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	WRG 621 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
20	SX_IB_20220505_19_59_SS_Duplicate_EU_F	May 05, 2022	7:59PM	AUS Leachate - pH 5.0	M22-My0015428		X		X	
21	SX_OB_20220505_20_09_S_S_Primary_EU_F	May 05, 2022	8:09PM	AUS Leachate - pH 5.0	M22-My0015429		X		X	
22	SX_IB_20220505_23_55_SS_Primary_EUF	May 05, 2022	11:55PM	AUS Leachate - pH 5.0	M22-My0015430		X		X	
23	SX_IB_20220506_04_00_SS_Primary_EUF	May 06, 2022	4:00PM	AUS Leachate - pH 5.0	M22-My0015431		X		X	

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Project Name:	20220506045023-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						HOLD	AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	WRG 621 WGTTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
24	SX_OB_20220506_04_02_SS_Primary_EUF	May 06, 2022	4:02PM	AUS Leachate - pH 5.0	M22-My0015432		X		X	
25	SX_OB_20220505_08_09_SS_Triplicate_EUF	May 05, 2022	8:09AM	AUS Leachate - Reagent Water	M22-My0015433		X		X	
26	SX_IB_20220505_08_17_SS_Primary_EUF	May 05, 2022	8:17AM	AUS Leachate - Reagent Water	M22-My0015434		X		X	
27	SX_IB_20220505_12_12_SS_Primary_EUF	May 05, 2022	12:12PM	AUS Leachate - Reagent Water	M22-My0015435		X		X	

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Project Name:	20220506045023-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

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Sample Detail						HOLD	AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	WRG 621 WGTTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
28	SX_OB_20220505_12_22_S_S_Primary_EUF	May 05, 2022	12:22PM	AUS Leachate - Reagent Water	M22-My0015436		X		X	
29	SX_IB_20220505_15_54_SS_Primary_EUF	May 05, 2022	3:54PM	AUS Leachate - Reagent Water	M22-My0015437		X		X	
30	SX_IB_20220505_15_56_SS_Duplicate_EUF	May 05, 2022	3:56PM	AUS Leachate - Reagent Water	M22-My0015438		X		X	
31	SX_IB_20220505_19_58_SS_Primary_EUF	May 05, 2022	7:58PM	AUS Leachate - Reagent Water	M22-My0015439		X		X	

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Project Name:	20220506045023-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						HOLD	AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	WRG 621 WGTTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
32	SX_IB_20220505_19_59_SS_Duplicate_EU_F	May 05, 2022	7:59PM	AUS Leachate - Reagent Water	M22-My0015440		X		X	
33	SX_OB_20220505_20_09_S_S_Primary_EU_F	May 05, 2022	8:09PM	AUS Leachate - Reagent Water	M22-My0015441		X		X	
34	SX_IB_20220505_23_55_SS_Primary_EUF	May 05, 2022	11:55PM	AUS Leachate - Reagent Water	M22-My0015442		X		X	
35	SX_IB_20220506_04_00_SS_Primary_EUF	May 06, 2022	4:00PM	AUS Leachate - Reagent Water	M22-My0015443		X		X	

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Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						HOLD	AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	WRG 621 WGTTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
36	SX_OB_20220506_04_02_S_S_Primary_EUF	May 06, 2022	4:02PM	AUS Leachate - Reagent Water	M22-My0015444		X		X	
37	SX_IB_20220506_07_46_SS_Primary_EUF	May 05, 2022	8:09AM	Soil	M22-My0015509	X				
Test Counts						1	24	12	36	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

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

Terms

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

QC - Acceptance Criteria

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

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

Results <10 times the LOR: No Limit

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

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

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

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

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

QC Data General Comments

- 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
Method Blank						
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	ug/L	< 0.05		0.05	Pass	
Perfluoropentanoic acid (PFPeA)	ug/L	< 0.01		0.01	Pass	
Perfluorohexanoic acid (PFHxA)	ug/L	< 0.01		0.01	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/L	< 0.01		0.01	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01		0.01	Pass	
Perfluorononanoic acid (PFNA)	ug/L	< 0.01		0.01	Pass	
Perfluorodecanoic acid (PFDA)	ug/L	< 0.01		0.01	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/L	< 0.01		0.01	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/L	< 0.01		0.01	Pass	
Perfluorotridecanoic acid (PFTTrDA)	ug/L	< 0.01		0.01	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/L	< 0.01		0.01	Pass	
Method Blank						
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)	ug/L	< 0.05		0.05	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/L	< 0.05		0.05	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/L	< 0.05		0.05	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/L	< 0.05		0.05	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	ug/L	< 0.05		0.05	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/L	< 0.05		0.05	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/L	< 0.05		0.05	Pass	
Method Blank						
Perfluoroalkyl sulfonic acids (PFASs)						
Perfluorobutanesulfonic acid (PFBS)	ug/L	< 0.01		0.01	Pass	
Perfluorononanesulfonic acid (PFNS)	ug/L	< 0.01		0.01	Pass	
Perfluoropropanesulfonic acid (PFPrS)	ug/L	< 0.01		0.01	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/L	< 0.01		0.01	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01		0.01	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01		0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01		0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01		0.01	Pass	
Method Blank						
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01		0.01	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	ug/L	< 0.05		0.05	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/L	< 0.01		0.01	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/L	< 0.01		0.01	Pass	
LCS - % Recovery						
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	%	107		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	104		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	106		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	104		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	136		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	99		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	127		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	129		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	108		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	111		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	111		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code		
LCS - % Recovery									
Perfluoroalkyl sulfonamido substances									
Perfluorooctane sulfonamide (FOSA)	%	102			50-150	Pass			
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	118			50-150	Pass			
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	113			50-150	Pass			
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	72			50-150	Pass			
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	114			50-150	Pass			
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	118			50-150	Pass			
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	115			50-150	Pass			
LCS - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA)									
Perfluorobutanesulfonic acid (PFBS)	%	97			50-150	Pass			
Perfluorononanesulfonic acid (PFNS)	%	96			50-150	Pass			
Perfluoropropanesulfonic acid (PFPrS)	%	132			50-150	Pass			
Perfluoropentanesulfonic acid (PFPeS)	%	100			50-150	Pass			
Perfluorohexanesulfonic acid (PFHxS)	%	103			50-150	Pass			
Perfluoroheptanesulfonic acid (PFHpS)	%	95			50-150	Pass			
Perfluorooctanesulfonic acid (PFOS)	%	124			50-150	Pass			
Perfluorodecanesulfonic acid (PFDS)	%	72			50-150	Pass			
LCS - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)									
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	113			50-150	Pass			
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	131			50-150	Pass			
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	89			50-150	Pass			
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	93			50-150	Pass			
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)									
				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	M22-My0015431	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	M22-My0015431	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	M22-My0015431	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-My0015431	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	M22-My0015431	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	M22-My0015431	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M22-My0015431	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-My0015431	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-My0015431	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-My0015431	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-My0015431	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances									
				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	M22-My0015431	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0015431	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0015431	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0015431	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0015431	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-My0015431	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0015431	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-My0015431	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-My0015431	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPS)	M22-My0015431	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-My0015431	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-My0015431	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0015431	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-My0015431	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-My0015431	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-My0015431	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0015431	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0015431	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-My0015438	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-My0015438	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-My0015438	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-My0015438	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-My0015438	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-My0015438	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-My0015438	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-My0015438	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-My0015438	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-My0015438	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-My0015438	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-My0015438	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0015438	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0015438	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0015438	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0015438	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0015438	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0015438	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-My0015438	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-My0015438	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-My0015438	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-My0015438	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-My0015438	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0015438	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-My0015438	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-My0015438	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-My0015438	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0015438	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0015438	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0015438	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
Carroll Lee	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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Accreditation Number 1261
Site Number 1254

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Arrangement for the mutual recognition of the
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inspection, proficiency testing scheme providers and
reference materials producers reports and certificates.

Attention: **David Lawson**

Report **886059-S**
Project name **20220506045023-Eurofin-21**
Project ID **JC0927**
Received Date **May 06, 2022**

Client Sample ID			SX_OB_20220 505_08_09_SS _TriPLICATE_EU F	SX_IB_202205 05_08_17_SS _Primary_EUF	SX_IB_202205 05_12_12_SS _Primary_EUF	SX_OB_20220 505_12_22_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0015409	M22- My0015410	M22- My0015411	M22- My0015412
Date Sampled			May 05, 2022	May 05, 2022	May 05, 2022	May 05, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Volatile Organics						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SX_OB_20220 505_08_09_SS _TriPLICATE_EU F	SX_IB_202205 05_08_17_SS _Primary_EUF	SX_IB_202205 05_12_12_SS _Primary_EUF	SX_OB_20220 505_12_22_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0015409	M22- My0015410	M22- My0015411	M22- My0015412
Date Sampled			May 05, 2022	May 05, 2022	May 05, 2022	May 05, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1,2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1,3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1,2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1,3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	83	65	79	69
Toluene-d8 (surr.)	1	%	73	72	71	60
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SX_OB_20220 505_08_09_SS _TriPLICATE_EU F	SX_IB_202205 05_08_17_SS _Primary_EUF	SX_IB_202205 05_12_12_SS _Primary_EUF	SX_OB_20220 505_12_22_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0015409	M22- My0015410	M22- My0015411	M22- My0015412
Date Sampled			May 05, 2022	May 05, 2022	May 05, 2022	May 05, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	105	56	53	72
p-Terphenyl-d14 (surr.)	1	%	109	76	67	68
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchloroendate (surr.)	1	%	117	94	96	96
Tetrachloro-m-xylene (surr.)	1	%	120	88	99	99

Client Sample ID			SX_OB_20220 505_08_09_SS _TriPLICATE_EU F	SX_IB_202205 05_08_17_SS _Primary_EUF	SX_IB_202205 05_12_12_SS _Primary_EUF	SX_OB_20220 505_12_22_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0015409	M22- My0015410	M22- My0015411	M22- My0015412
Date Sampled			May 05, 2022	May 05, 2022	May 05, 2022	May 05, 2022
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchloroendate (surr.)	1	%	117	94	96	96
Tetrachloro-m-xylene (surr.)	1	%	120	88	99	99
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4,5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,4,6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4,6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4,6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2,4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	81	56	60	76
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Chromium (hexavalent)						
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	1.3
Cyanide (total)						
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
Fluoride (Total)						
Fluoride (Total)	100	mg/kg	< 100	< 100	< 100	< 100
pH (1:5 Aqueous extract at 25°C as rec.)						
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	8.2	8.1	8.3	7.9
% Moisture						
% Moisture	1	%	30	30	31	35
Heavy Metals						
Arsenic	2	mg/kg	23	50	50	28
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	160	150	160	200
Copper	5	mg/kg	73	67	73	78
Lead	5	mg/kg	< 5	5.0	5.1	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_OB_20220 505_08_09_SS _TriPLICATE_EU F	SX_IB_202205 05_08_17_SS _Primary_EUF	SX_IB_202205 05_12_12_SS _Primary_EUF	SX_OB_20220 505_12_22_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0015409	M22- My0015410	M22- My0015411	M22- My0015412
Date Sampled			May 05, 2022	May 05, 2022	May 05, 2022	May 05, 2022
Test/Reference	LOR	Unit				
Heavy Metals						
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	220	220	190	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	140	140	140	170
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTrDA) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	80	80	82	83
13C5-PFPeA (surr.)	1	%	74	74	75	82
13C5-PFHxA (surr.)	1	%	70	68	68	68
13C4-PFHpA (surr.)	1	%	66	64	63	66
13C8-PFOA (surr.)	1	%	80	81	77	68
13C5-PFNA (surr.)	1	%	95	77	74	78
13C6-PFDA (surr.)	1	%	73	82	93	93
13C2-PFUnDA (surr.)	1	%	63	123	128	131
13C2-PFDoDA (surr.)	1	%	92	89	86	102
13C2-PFTeDA (surr.)	1	%	135	136	92	119
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	99	89	94	89
D3-N-MeFOSA (surr.)	1	%	78	80	92	103
D5-N-EtFOSA (surr.)	1	%	72	72	72	77
D7-N-MeFOSE (surr.)	1	%	113	98	86	98
D9-N-EtFOSE (surr.)	1	%	81	85	74	85
D5-N-EtFOSAA (surr.)	1	%	64	93	153	167
D3-N-MeFOSAA (surr.)	1	%	68	80	102	94

Client Sample ID			SX_OB_20220 505_08_09_SS _TriPLICATE_EUF	SX_IB_202205 05_08_17_SS _Primary_EUF	SX_IB_202205 05_12_12_SS _Primary_EUF	SX_OB_20220 505_12_22_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0015409	M22- My0015410	M22- My0015411	M22- My0015412
Date Sampled			May 05, 2022	May 05, 2022	May 05, 2022	May 05, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFASs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	99	103	102	88
18O2-PFHxS (surr.)	1	%	117	105	95	118
13C8-PFOS (surr.)	1	%	90	81	83	91
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	83	94	97	103
13C2-6:2 FTSA (surr.)	1	%	80	65	91	77
13C2-8:2 FTSA (surr.)	1	%	89	85	83	94
13C2-10:2 FTSA (surr.)	1	%	80	112	68	64
PFASs Summations						
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	< 10	< 10	< 10
Sum of PFASs (n=30)*	50	ug/kg	< 50	< 50	< 50	< 50

Client Sample ID			SX_IB_202205 05_15_54_SS _Primary_EUF	SX_IB_202205 05_15_56_SS _Duplicate_EUF	SX_IB_202205 05_19_58_SS _Primary_EUF	SX_IB_202205 05_19_59_SS _Duplicate_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0015413	M22- My0015414	M22- My0015415	M22- My0015416
Date Sampled			May 05, 2022	May 05, 2022	May 05, 2022	May 05, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20

Client Sample ID			SX_IB_202205_05_15_54_SS_Primary_EUF	SX_IB_202205_05_15_56_SS_Duplicate_EUF	SX_IB_202205_05_19_58_SS_Primary_EUF	SX_IB_202205_05_19_59_SS_Duplicate_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-My0015413	M22-My0015414	M22-My0015415	M22-My0015416
Date Sampled			May 05, 2022	May 05, 2022	May 05, 2022	May 05, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Volatile Organics						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.1-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 05_15_54_SS Primary_EUF	SX_IB_202205 05_15_56_SS Duplicate_EUF	SX_IB_202205 05_19_58_SS Primary_EUF	SX_IB_202205 05_19_59_SS Duplicate_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0015413	M22- My0015414	M22- My0015415	M22- My0015416
Date Sampled			May 05, 2022	May 05, 2022	May 05, 2022	May 05, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
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	%	84	81	72	62
Toluene-d8 (surr.)	1	%	68	80	69	63
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	70	56	63	60
p-Terphenyl-d14 (surr.)	1	%	148	76	72	59

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Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-My0015413	M22-My0015414	M22-My0015415	M22-My0015416
Date Sampled			May 05, 2022	May 05, 2022	May 05, 2022	May 05, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchloroendate (surr.)	1	%	100	96	92	94
Tetrachloro-m-xylene (surr.)	1	%	74	107	118	95
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchloroendate (surr.)	1	%	100	96	92	94
Tetrachloro-m-xylene (surr.)	1	%	74	107	118	95
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4,5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,4,6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1

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Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-My0015413	M22-My0015414	M22-My0015415	M22-My0015416
Date Sampled			May 05, 2022	May 05, 2022	May 05, 2022	May 05, 2022
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	110	56	63	63
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Chromium (hexavalent)						
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Cyanide (total)						
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
Fluoride (Total)						
Fluoride (Total)	100	mg/kg	< 100	< 100	< 100	< 100
pH (1:5 Aqueous extract at 25°C as rec.)						
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	8.1	8.3	8.4	8.2
% Moisture						
% Moisture	1	%	30	31	29	27
Heavy Metals						
Arsenic	2	mg/kg	44	40	43	40
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	150	140	130	130
Copper	5	mg/kg	72	61	69	64
Lead	5	mg/kg	< 5	< 5	8.6	< 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	200	180	210	200
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	140	110	130	130
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTTrDA) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	81	83	84	82
13C5-PFPeA (surr.)	1	%	73	82	77	82
13C5-PFHxA (surr.)	1	%	67	67	73	69

Client Sample ID			SX_IB_202205_05_15_54_SS_Primary_EUF	SX_IB_202205_05_15_56_SS_Duplicate_EUF	SX_IB_202205_05_19_58_SS_Primary_EUF	SX_IB_202205_05_19_59_SS_Duplicate_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-My0015413	M22-My0015414	M22-My0015415	M22-My0015416
Date Sampled			May 05, 2022	May 05, 2022	May 05, 2022	May 05, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C4-PFHpA (surr.)	1	%	63	63	68	66
13C8-PFOA (surr.)	1	%	84	78	82	79
13C5-PFNA (surr.)	1	%	78	76	53	72
13C6-PFDA (surr.)	1	%	98	96	81	81
13C2-PFUnDA (surr.)	1	%	139	128	130	119
13C2-PFDoDA (surr.)	1	%	98	96	101	95
13C2-PFTeDA (surr.)	1	%	119	140	124	129
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	92	93	98	90
D3-N-MeFOSA (surr.)	1	%	95	97	103	95
D5-N-EtFOSA (surr.)	1	%	71	72	81	76
D7-N-MeFOSE (surr.)	1	%	95	92	113	105
D9-N-EtFOSE (surr.)	1	%	85	85	89	90
D5-N-EtFOSAA (surr.)	1	%	133	137	132	154
D3-N-MeFOSAA (surr.)	1	%	73	88	73	49
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	100	105	101	100
18O2-PFHxS (surr.)	1	%	98	124	119	113
13C8-PFOS (surr.)	1	%	96	80	68	83
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	96	97	93	97
13C2-6:2 FTSA (surr.)	1	%	83	79	89	82

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Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-My0015413	M22-My0015414	M22-My0015415	M22-My0015416
Date Sampled			May 05, 2022	May 05, 2022	May 05, 2022	May 05, 2022
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
13C2-8:2 FTSA (surr.)	1	%	86	97	77	77
13C2-10:2 FTSA (surr.)	1	%	78	84	127	91
PFASs Summations						
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	< 10	< 10	< 10
Sum of PFASs (n=30)*	50	ug/kg	< 50	< 50	< 50	< 50

Client Sample ID			SX_OB_20220506_04_00_SS_Primary_EUF	SX_IB_202205_05_23_55_SS_Primary_EUF	SX_IB_202205_06_04_00_SS_Primary_EUF	SX_OB_20220506_04_02_SS_Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-My0015417	M22-My0015418	M22-My0015419	M22-My0015420
Date Sampled			May 05, 2022	May 05, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Volatile Organics						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SX_OB_20220 505_20_09_SS _Primary_EUF	SX_IB_202205 05_23_55_SS _Primary_EUF	SX_IB_202205 06_04_00_SS _Primary_EUF	SX_OB_20220 506_04_02_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0015417	M22- My0015418	M22- My0015419	M22- My0015420
Date Sampled			May 05, 2022	May 05, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
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	%	85	84	69	66
Toluene-d8 (surr.)	1	%	77	71	76	72

Client Sample ID			SX_OB_20220 505_20_09_SS _Primary_EUF	SX_IB_202205 05_23_55_SS _Primary_EUF	SX_IB_202205 06_04_00_SS _Primary_EUF	SX_OB_20220 506_04_02_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0015417	M22- My0015418	M22- My0015419	M22- My0015420
Date Sampled			May 05, 2022	May 05, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	66	84	62	87
p-Terphenyl-d14 (surr.)	1	%	54	77	79	62
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_OB_20220505_20_09_SS_Primary_EUF	SX_IB_20220505_23_55_SS_Primary_EUF	SX_IB_20220506_04_00_SS_Primary_EUF	SX_OB_20220506_04_02_SS_Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-My0015417	M22-My0015418	M22-My0015419	M22-My0015420
Date Sampled			May 05, 2022	May 05, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Dibutylchlorendate (surr.)	1	%	63	82	89	101
Tetrachloro-m-xylene (surr.)	1	%	72	79	99	80
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	63	82	89	101
Tetrachloro-m-xylene (surr.)	1	%	72	79	99	80
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4,5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,4,6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4,6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4,6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2,4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	105	128	63	59
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Other Parameters						
Chromium (hexavalent)	1	mg/kg	< 1	2.4	1.0	< 1
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
Fluoride (Total)	100	mg/kg	< 100	< 100	< 100	< 100
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	8.1	8.6	8.3	8.4
% Moisture	1	%	31	28	31	30

Client Sample ID			SX_OB_20220 505_20_09_SS _Primary_EUF	SX_IB_202205 05_23_55_SS _Primary_EUF	SX_IB_202205 06_04_00_SS _Primary_EUF	SX_OB_20220 506_04_02_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0015417	M22- My0015418	M22- My0015419	M22- My0015420
Date Sampled			May 05, 2022	May 05, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	26	40	39	24
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	150	130	130	150
Copper	5	mg/kg	83	68	58	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	230	200	170	240
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	140	130	110	150
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTeDA) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	81	83	83	82
13C5-PFPeA (surr.)	1	%	75	84	86	84
13C5-PFHxA (surr.)	1	%	68	68	72	67
13C4-PFHpA (surr.)	1	%	62	69	65	67
13C8-PFOA (surr.)	1	%	79	81	81	78
13C5-PFNA (surr.)	1	%	76	54	60	74
13C6-PFDA (surr.)	1	%	98	103	99	103
13C2-PFUnDA (surr.)	1	%	134	116	140	121
13C2-PFDoDA (surr.)	1	%	88	83	88	93
13C2-PFTeDA (surr.)	1	%	113	81	119	132
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	83	90	96	96
D3-N-MeFOSA (surr.)	1	%	55	79	106	85

Client Sample ID			SX_OB_20220505_20_09_SS_Primary_EUF	SX_IB_20220505_23_55_SS_Primary_EUF	SX_IB_20220506_04_00_SS_Primary_EUF	SX_OB_20220506_04_02_SS_Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-My0015417	M22-My0015418	M22-My0015419	M22-My0015420
Date Sampled			May 05, 2022	May 05, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
D5-N-EtFOSA (surr.)	1	%	70	78	77	76
D7-N-MeFOSE (surr.)	1	%	94	60	121	102
D9-N-EtFOSE (surr.)	1	%	92	74	81	79
D5-N-EtFOSAA (surr.)	1	%	52	84	110	120
D3-N-MeFOSAA (surr.)	1	%	91	95	113	83
Perfluoroalkyl sulfonic acids (PFASs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	99	105	103	103
18O2-PFHxS (surr.)	1	%	95	101	104	91
13C8-PFOS (surr.)	1	%	81	69	103	94
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	84	95	89	87
13C2-6:2 FTSA (surr.)	1	%	83	88	84	88
13C2-8:2 FTSA (surr.)	1	%	74	77	75	89
13C2-10:2 FTSA (surr.)	1	%	70	87	105	71
PFASs Summations						
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	< 10	< 10	< 10
Sum of PFASs (n=30)*	50	ug/kg	< 50	< 50	< 50	< 50

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 09, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	May 09, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	May 09, 2022	14 Days
Volatile Organics - Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS	Melbourne	May 09, 2022	7 Days
Volatile Organics - Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)	Melbourne	May 09, 2022	7 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 09, 2022	14 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)	Melbourne	May 09, 2022	14 Days
Polychlorinated Biphenyls - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082)	Melbourne	May 09, 2022	28 Days
Phenols (Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 09, 2022	14 Days
Phenols (non-Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 09, 2022	14 Days
Chromium (hexavalent) - Method: LTM-INO-4100 Hexavalent Chromium by Spectrometric detection - Method: LTM-INO-4230 Hexavalent Chromium by UV-Vis	Melbourne	May 09, 2022	28 Days
Cyanide (total) - Method: LTM-INO-4020 Total Free WAD Cyanide by CFA	Melbourne	May 10, 2022	14 Days
Fluoride (Total) - Method: LTM-INO-4150 Determination of Total Fluoride PART B – ISE	Melbourne	May 10, 2022	28 Days
pH (1:5 Aqueous extract at 25°C as rec.) - Method: LTM-GEN-7090 pH in soil by ISE	Melbourne	May 09, 2022	7 Days
Metals IWRG 621 : Metals M12 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	May 09, 2022	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Melbourne	May 06, 2022	14 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 09, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 09, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFASs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 09, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 09, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 06, 2022	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 6, 2022 2:55 PM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	886059	Due:	May 13, 2022
Project Name:	20220506045023-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						HOLD	AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	WRG 621 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID					
1	SX_OB_20220505_08_09_S_S_Triplicate_EUF	May 05, 2022	8:09AM	Soil	M22-My0015409			X	X	X
2	SX_IB_20220505_08_17_SS_Primary_EUF	May 05, 2022	8:17AM	Soil	M22-My0015410			X	X	X
3	SX_IB_20220505_12_12_SS_Primary_EUF	May 05, 2022	12:12PM	Soil	M22-My0015411			X	X	X
4	SX_OB_20220505_12_22_S	May 05, 2022	12:22PM	Soil	M22-My0015412			X	X	X

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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						HOLD	AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	WRG 621 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
	S_Primary_EU F									
5	SX_IB_202205 05_15_54_SS _Primary_EUF	May 05, 2022	3:54PM	Soil	M22- My0015413			X	X	X
6	SX_IB_202205 05_15_56_SS _Duplicate_EU F	May 05, 2022	3:56PM	Soil	M22- My0015414			X	X	X
7	SX_IB_202205 05_19_58_SS _Primary_EUF	May 05, 2022	7:58PM	Soil	M22- My0015415			X	X	X
8	SX_IB_202205 05_19_59_SS	May 05, 2022	7:59PM	Soil	M22- My0015416			X	X	X

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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						HOLD	AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	WRG 621 WGTTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
	05_19_59_SS_Duplicate_EU_F				My0015416					
9	SX_OB_20220505_20_09_S_S_Primary_EU_F	May 05, 2022	8:09PM	Soil	M22-My0015417			X	X	X
10	SX_IB_20220505_23_55_SS_Primary_EUF	May 05, 2022	11:55PM	Soil	M22-My0015418			X	X	X
11	SX_IB_20220506_04_00_SS_Primary_EUF	May 06, 2022	4:00PM	Soil	M22-My0015419			X	X	X
12	SX_OB_20220	May 06, 2022	4:02PM	Soil	M22-			X	X	X

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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						HOLD	AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	WRG 621 WGTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
	506_04_02_S S_Primary_EU F				My0015420					
13	SX_OB_20220 505_08_09_S S_Triplicate_E UF	May 05, 2022	8:09AM	AUS Leachate - pH 5.0	M22- My0015421		X		X	
14	SX_IB_202205 05_08_17_SS _Primary_EUF	May 05, 2022	8:17AM	AUS Leachate - pH 5.0	M22- My0015422		X		X	
15	SX_IB_202205 05_12_12_SS _Primary_EUF	May 05, 2022	12:12PM	AUS Leachate - pH 5.0	M22- My0015423		X		X	
16	SX_OB_20220	May 05, 2022	12:22PM	AUS Leachate	M22-		X		X	

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Sample Detail						HOLD	AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	WRG 621 WGTTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
16	SX_OB_20220505_12_22_S_S_Primary_EUF	May 05, 2022	12:22PM	AUS Leachate - pH 5.0	M22-My0015424					
17	SX_IB_20220505_15_54_SS_Primary_EUF	May 05, 2022	3:54PM	AUS Leachate - pH 5.0	M22-My0015425		X		X	
18	SX_IB_20220505_15_56_SS_Duplicate_EUF	May 05, 2022	3:56PM	AUS Leachate - pH 5.0	M22-My0015426		X		X	
19	SX_IB_20220505_19_58_SS_Primary_EUF	May 05, 2022	7:58PM	AUS Leachate - pH 5.0	M22-My0015427		X		X	

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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						HOLD	AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	WRG 621 WGTTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
20	SX_IB_20220505_19_59_SS_Duplicate_EU_F	May 05, 2022	7:59PM	AUS Leachate - pH 5.0	M22-My0015428		X		X	
21	SX_OB_20220505_20_09_S_S_Primary_EU_F	May 05, 2022	8:09PM	AUS Leachate - pH 5.0	M22-My0015429		X		X	
22	SX_IB_20220505_23_55_SS_Primary_EUF	May 05, 2022	11:55PM	AUS Leachate - pH 5.0	M22-My0015430		X		X	
23	SX_IB_20220506_04_00_SS_Primary_EUF	May 06, 2022	4:00PM	AUS Leachate - pH 5.0	M22-My0015431		X		X	

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Sample Detail						HOLD	AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	WRG 621 WGTTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
24	SX_OB_20220506_04_02_SS_Primary_EUF	May 06, 2022	4:02PM	AUS Leachate - pH 5.0	M22-My0015432		X		X	
25	SX_OB_20220505_08_09_SS_Triplicate_EUF	May 05, 2022	8:09AM	AUS Leachate - Reagent Water	M22-My0015433		X		X	
26	SX_IB_20220505_08_17_SS_Primary_EUF	May 05, 2022	8:17AM	AUS Leachate - Reagent Water	M22-My0015434		X		X	
27	SX_IB_20220505_12_12_SS_Primary_EUF	May 05, 2022	12:12PM	AUS Leachate - Reagent Water	M22-My0015435		X		X	

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Sample Detail						HOLD	AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	WRG 621 WGTTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
28	SX_OB_20220505_12_22_S_S_Primary_EUF	May 05, 2022	12:22PM	AUS Leachate - Reagent Water	M22-My0015436		X		X	
29	SX_IB_20220505_15_54_SS_Primary_EUF	May 05, 2022	3:54PM	AUS Leachate - Reagent Water	M22-My0015437		X		X	
30	SX_IB_20220505_15_56_SS_Duplicate_EUF	May 05, 2022	3:56PM	AUS Leachate - Reagent Water	M22-My0015438		X		X	
31	SX_IB_20220505_19_58_SS_Primary_EUF	May 05, 2022	7:58PM	AUS Leachate - Reagent Water	M22-My0015439		X		X	

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Sample Detail						HOLD	AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	WRG 621 WGTTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
32	SX_IB_20220505_19_59_SS_Duplicate_EU_F	May 05, 2022	7:59PM	AUS Leachate - Reagent Water	M22-My0015440		X		X	
33	SX_OB_20220505_20_09_S_S_Primary_EU_F	May 05, 2022	8:09PM	AUS Leachate - Reagent Water	M22-My0015441		X		X	
34	SX_IB_20220505_23_55_SS_Primary_EUF	May 05, 2022	11:55PM	AUS Leachate - Reagent Water	M22-My0015442		X		X	
35	SX_IB_20220506_04_00_SS_Primary_EUF	May 06, 2022	4:00PM	AUS Leachate - Reagent Water	M22-My0015443		X		X	

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Project ID:	JC0927	Fax:		Contact Name:	Agon Lab Reports (Spoil Project)

Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						HOLD	AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	WRG 621 WGTTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217										
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
36	SX_OB_20220506_04_02_S_S_Primary_EUF	May 06, 2022	4:02PM	AUS Leachate - Reagent Water	M22-My0015444		X		X	
37	SX_IB_20220506_07_46_SS_Primary_EUF	May 05, 2022	8:09AM	Soil	M22-My0015509	X				
Test Counts						1	24	12	36	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

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

Terms

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

QC - Acceptance Criteria

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

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

Results <10 times the LOR: No Limit

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

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

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

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

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

QC Data General Comments

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

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Dibromochloromethane	mg/kg	< 0.5			0.5	Pass	
Dibromomethane	mg/kg	< 0.5			0.5	Pass	
Dichlorodifluoromethane	mg/kg	< 0.5			0.5	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
Iodomethane	mg/kg	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.5			0.5	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
Methylene Chloride	mg/kg	< 0.5			0.5	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Styrene	mg/kg	< 0.5			0.5	Pass	
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Trichloroethene	mg/kg	< 0.5			0.5	Pass	
Trichlorofluoromethane	mg/kg	< 0.5			0.5	Pass	
Vinyl chloride	mg/kg	< 0.5			0.5	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g,h,i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a,h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2,4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2,4,5-Trichlorophenol	mg/kg	< 1			1	Pass	
2,4,6-Trichlorophenol	mg/kg	< 1			1	Pass	
2,6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1	Pass	
Pentachlorophenol	mg/kg	< 1			1	Pass	
Tetrachlorophenols - Total	mg/kg	< 10			10	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4,6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4,6-dinitrophenol	mg/kg	< 5			5	Pass	
2-Nitrophenol	mg/kg	< 1			1.0	Pass	
2,4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2,4-Dinitrophenol	mg/kg	< 5			5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Chromium (hexavalent)	mg/kg	< 1			1	Pass	
Cyanide (total)	mg/kg	< 5			5	Pass	
Fluoride (Total)	mg/kg	< 100			100	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Molybdenum	mg/kg	< 5			5	Pass	
Nickel	mg/kg	< 5			5	Pass	
Selenium	mg/kg	< 2			2	Pass	
Silver	mg/kg	< 2			2	Pass	
Tin	mg/kg	< 10			10	Pass	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Zinc	mg/kg	< 5		5	Pass	
Method Blank						
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	ug/kg	< 5		5	Pass	
Perfluoropentanoic acid (PFPeA)	ug/kg	< 5		5	Pass	
Perfluorohexanoic acid (PFHxA)	ug/kg	< 5		5	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/kg	< 5		5	Pass	
Perfluorooctanoic acid (PFOA)	ug/kg	< 5		5	Pass	
Perfluorononanoic acid (PFNA)	ug/kg	< 5		5	Pass	
Perfluorodecanoic acid (PFDA)	ug/kg	< 5		5	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/kg	< 5		5	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/kg	< 5		5	Pass	
Perfluorotridecanoic acid (PFTrDA)	ug/kg	< 5		5	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/kg	< 5		5	Pass	
Method Blank						
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)	ug/kg	< 5		5	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/kg	< 5		5	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/kg	< 5		5	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/kg	< 5		5	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	ug/kg	< 5		5	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/kg	< 10		10	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/kg	< 10		10	Pass	
Method Blank						
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)	ug/kg	< 5		5	Pass	
Perfluorononanesulfonic acid (PFNS)	ug/kg	< 5		5	Pass	
Perfluoropropanesulfonic acid (PFPrS)	ug/kg	< 5		5	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/kg	< 5		5	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/kg	< 5		5	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/kg	< 5		5	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/kg	< 5		5	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/kg	< 5		5	Pass	
Method Blank						
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/kg	< 5		5	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	ug/kg	< 10		10	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/kg	< 5		5	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/kg	< 5		5	Pass	
LCS - % Recovery						
Total Recoverable Hydrocarbons						
TRH C6-C9	%	95		70-130	Pass	
TRH C10-C14	%	121		70-130	Pass	
Naphthalene	%	92		70-130	Pass	
TRH C6-C10	%	92		70-130	Pass	
TRH >C10-C16	%	107		70-130	Pass	
LCS - % Recovery						
Volatile Organics						
1.1-Dichloroethene	%	79		70-130	Pass	
1.1.1-Trichloroethane	%	84		70-130	Pass	
1.2-Dichlorobenzene	%	80		70-130	Pass	
1.2-Dichloroethane	%	107		70-130	Pass	
Benzene	%	92		70-130	Pass	
Ethylbenzene	%	71		70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
m&p-Xylenes	%	70			70-130	Pass	
Toluene	%	81			70-130	Pass	
Trichloroethene	%	83			70-130	Pass	
Xylenes - Total*	%	72			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	117			70-130	Pass	
Acenaphthylene	%	128			70-130	Pass	
Anthracene	%	102			70-130	Pass	
Benz(a)anthracene	%	108			70-130	Pass	
Benzo(a)pyrene	%	110			70-130	Pass	
Benzo(b&i)fluoranthene	%	107			70-130	Pass	
Benzo(g,h,i)perylene	%	111			70-130	Pass	
Benzo(k)fluoranthene	%	110			70-130	Pass	
Chrysene	%	111			70-130	Pass	
Dibenz(a,h)anthracene	%	117			70-130	Pass	
Fluoranthene	%	117			70-130	Pass	
Fluorene	%	114			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	112			70-130	Pass	
Naphthalene	%	105			70-130	Pass	
Phenanthrene	%	114			70-130	Pass	
Pyrene	%	117			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	100			70-130	Pass	
4,4'-DDD	%	104			70-130	Pass	
4,4'-DDE	%	105			70-130	Pass	
4,4'-DDT	%	116			70-130	Pass	
a-HCH	%	121			70-130	Pass	
Aldrin	%	108			70-130	Pass	
b-HCH	%	110			70-130	Pass	
d-HCH	%	108			70-130	Pass	
Dieldrin	%	101			70-130	Pass	
Endosulfan I	%	113			70-130	Pass	
Endosulfan II	%	106			70-130	Pass	
Endosulfan sulphate	%	113			70-130	Pass	
Endrin	%	113			70-130	Pass	
Endrin aldehyde	%	128			70-130	Pass	
Endrin ketone	%	101			70-130	Pass	
g-HCH (Lindane)	%	99			70-130	Pass	
Heptachlor	%	108			70-130	Pass	
Heptachlor epoxide	%	87			70-130	Pass	
Hexachlorobenzene	%	73			70-130	Pass	
Methoxychlor	%	118			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	111			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	118			25-140	Pass	
2,4-Dichlorophenol	%	85			25-140	Pass	
2,4,5-Trichlorophenol	%	91			25-140	Pass	
2,4,6-Trichlorophenol	%	93			25-140	Pass	
2,6-Dichlorophenol	%	89			25-140	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4-Chloro-3-methylphenol	%	93			25-140	Pass	
Pentachlorophenol	%	70			25-140	Pass	
Tetrachlorophenols - Total	%	76			25-140	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4,6-dinitrophenol	%	61			25-140	Pass	
2-Methyl-4,6-dinitrophenol	%	64			25-140	Pass	
2-Nitrophenol	%	103			25-140	Pass	
2,4-Dimethylphenol	%	100			25-140	Pass	
2,4-Dinitrophenol	%	88			25-140	Pass	
2-Methylphenol (o-Cresol)	%	99			25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	114			25-140	Pass	
4-Nitrophenol	%	82			25-140	Pass	
Dinoseb	%	65			25-140	Pass	
Phenol	%	103			25-140	Pass	
LCS - % Recovery							
Chromium (hexavalent)	%	96			70-130	Pass	
Cyanide (total)	%	104			70-130	Pass	
Fluoride (Total)	%	91			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	103			80-120	Pass	
Cadmium	%	106			80-120	Pass	
Chromium	%	104			80-120	Pass	
Copper	%	101			80-120	Pass	
Lead	%	106			80-120	Pass	
Mercury	%	105			80-120	Pass	
Molybdenum	%	102			80-120	Pass	
Nickel	%	97			80-120	Pass	
Selenium	%	103			80-120	Pass	
Silver	%	107			80-120	Pass	
Tin	%	99			80-120	Pass	
Zinc	%	100			80-120	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	119			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	133			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	119			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	118			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	118			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	145			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	97			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	113			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	121			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	137			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	121			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	119			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	123			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	127			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	122			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	120			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	124			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	108			50-150	Pass		
LCS - % Recovery								
Perfluoroalkyl sulfonic acids (PFSA's)								
Perfluorobutanesulfonic acid (PFBS)	%	108			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	140			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	144			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	90			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	109			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	67			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	119			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	125			50-150	Pass		
LCS - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	118			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	103			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	116			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	149			50-150	Pass		
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery								
Total Recoverable Hydrocarbons				Result 1				
TRH C10-C14	M22-My0018572	NCP	%	105		70-130	Pass	
TRH >C10-C16	M22-My0018572	NCP	%	112		70-130	Pass	
Spike - % Recovery								
Organochlorine Pesticides				Result 1				
Chlordanes - Total	M22-My0018562	NCP	%	93		70-130	Pass	
4,4'-DDD	M22-My0018562	NCP	%	90		70-130	Pass	
4,4'-DDE	M22-My0018562	NCP	%	98		70-130	Pass	
4,4'-DDT	M22-My0018562	NCP	%	85		70-130	Pass	
a-HCH	M22-My0018562	NCP	%	92		70-130	Pass	
Aldrin	M22-My0018562	NCP	%	98		70-130	Pass	
b-HCH	M22-My0018562	NCP	%	72		70-130	Pass	
d-HCH	M22-My0018562	NCP	%	87		70-130	Pass	
Dieldrin	M22-My0018562	NCP	%	110		70-130	Pass	
Endosulfan I	M22-My0018562	NCP	%	82		70-130	Pass	
Endosulfan II	M22-My0018562	NCP	%	82		70-130	Pass	
Endosulfan sulphate	M22-My0018562	NCP	%	99		70-130	Pass	
Endrin	M22-My0018562	NCP	%	96		70-130	Pass	
Endrin aldehyde	M22-My0018562	NCP	%	104		70-130	Pass	
Endrin ketone	M22-My0018562	NCP	%	77		70-130	Pass	
g-HCH (Lindane)	M22-My0018562	NCP	%	93		70-130	Pass	
Heptachlor	M22-My0018562	NCP	%	104		70-130	Pass	
Heptachlor epoxide	M22-My0018562	NCP	%	95		70-130	Pass	
Hexachlorobenzene	M22-My0018562	NCP	%	108		70-130	Pass	
Methoxychlor	M22-My0018562	NCP	%	83		70-130	Pass	
Spike - % Recovery								
Heavy Metals				Result 1				
Arsenic	M22-My0015409	CP	%	92		75-125	Pass	
Cadmium	M22-My0015409	CP	%	103		75-125	Pass	
Chromium	M22-My0015409	CP	%	97		75-125	Pass	
Copper	M22-My0015409	CP	%	91		75-125	Pass	
Lead	M22-My0015409	CP	%	91		75-125	Pass	
Mercury	M22-My0015409	CP	%	94		75-125	Pass	
Molybdenum	M22-My0015409	CP	%	97		75-125	Pass	
Nickel	M22-My0015409	CP	%	96		75-125	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Selenium	M22-My0015409	CP	%	82		75-125	Pass	
Silver	M22-My0015409	CP	%	103		75-125	Pass	
Tin	M22-My0015409	CP	%	94		75-125	Pass	
Zinc	M22-My0015409	CP	%	92		75-125	Pass	
Spike - % Recovery								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1				
Perfluorobutanoic acid (PFBA)	M22-My0015409	CP	%	106		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M22-My0015409	CP	%	119		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M22-My0015409	CP	%	112		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-My0015409	CP	%	115		50-150	Pass	
Perfluorooctanoic acid (PFOA)	M22-My0015409	CP	%	126		50-150	Pass	
Perfluorononanoic acid (PFNA)	M22-My0015409	CP	%	129		50-150	Pass	
Perfluorodecanoic acid (PFDA)	M22-My0015409	CP	%	107		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-My0015409	CP	%	128		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-My0015409	CP	%	129		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-My0015409	CP	%	124		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-My0015409	CP	%	117		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonamido substances				Result 1				
Perfluorooctane sulfonamide (FOSA)	M22-My0015409	CP	%	110		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0015409	CP	%	121		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0015409	CP	%	118		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0015409	CP	%	126		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0015409	CP	%	119		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0015409	CP	%	87		50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0015409	CP	%	107		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1				
Perfluorobutanesulfonic acid (PFBS)	M22-My0015409	CP	%	102		50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-My0015409	CP	%	125		50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-My0015409	CP	%	135		50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-My0015409	CP	%	105		50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-My0015409	CP	%	123		50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0015409	CP	%	81		50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-My0015409	CP	%	121		50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-My0015409	CP	%	123		50-150	Pass	
Spike - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1				

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-My0015409	CP	%	117		50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0015409	CP	%	113		50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0015409	CP	%	119		50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0015409	CP	%	146		50-150	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons				Result 1				
TRH C6-C9	M22-My0015410	CP	%	85		70-130	Pass	
Naphthalene	M22-My0015410	CP	%	88		70-130	Pass	
TRH C6-C10	M22-My0015410	CP	%	84		70-130	Pass	
Spike - % Recovery								
Volatile Organics				Result 1				
1.1-Dichloroethene	M22-My0015410	CP	%	71		70-130	Pass	
1.1.1-Trichloroethane	M22-My0015410	CP	%	90		70-130	Pass	
1.2-Dichlorobenzene	M22-My0015410	CP	%	91		70-130	Pass	
1.2-Dichloroethane	M22-My0015410	CP	%	99		70-130	Pass	
Benzene	M22-My0015410	CP	%	94		70-130	Pass	
Ethylbenzene	M22-My0015410	CP	%	94		70-130	Pass	
m&p-Xylenes	M22-My0015410	CP	%	95		70-130	Pass	
o-Xylene	M22-My0015410	CP	%	96		70-130	Pass	
Toluene	M22-My0015410	CP	%	91		70-130	Pass	
Trichloroethene	M22-My0015410	CP	%	100		70-130	Pass	
Xylenes - Total*	M22-My0015410	CP	%	95		70-130	Pass	
Spike - % Recovery								
Polycyclic Aromatic Hydrocarbons				Result 1				
Acenaphthene	M22-My0015410	CP	%	90		70-130	Pass	
Acenaphthylene	M22-My0015410	CP	%	126		70-130	Pass	
Anthracene	M22-My0015410	CP	%	73		70-130	Pass	
Benz(a)anthracene	M22-My0015410	CP	%	81		70-130	Pass	
Benzo(a)pyrene	M22-My0015410	CP	%	92		70-130	Pass	
Benzo(b&j)fluoranthene	M22-My0015410	CP	%	89		70-130	Pass	
Benzo(g,h,i)perylene	M22-My0015410	CP	%	81		70-130	Pass	
Benzo(k)fluoranthene	M22-My0015410	CP	%	77		70-130	Pass	
Chrysene	M22-My0015410	CP	%	82		70-130	Pass	
Dibenz(a,h)anthracene	M22-My0015410	CP	%	90		70-130	Pass	
Fluoranthene	M22-My0015410	CP	%	84		70-130	Pass	
Fluorene	M22-My0015410	CP	%	84		70-130	Pass	
Indeno(1.2.3-cd)pyrene	M22-My0015410	CP	%	89		70-130	Pass	
Naphthalene	M22-My0015410	CP	%	88		70-130	Pass	
Phenanthrene	M22-My0015410	CP	%	83		70-130	Pass	
Pyrene	M22-My0015410	CP	%	86		70-130	Pass	
Spike - % Recovery								
Phenols (Halogenated)				Result 1				
2-Chlorophenol	M22-My0015410	CP	%	82		30-130	Pass	
2.4-Dichlorophenol	M22-My0015410	CP	%	84		30-130	Pass	
2.4.5-Trichlorophenol	M22-My0015410	CP	%	87		30-130	Pass	
2.4.6-Trichlorophenol	M22-My0015410	CP	%	89		30-130	Pass	
2.6-Dichlorophenol	M22-My0015410	CP	%	87		30-130	Pass	
4-Chloro-3-methylphenol	M22-My0015410	CP	%	92		30-130	Pass	
Pentachlorophenol	M22-My0015410	CP	%	59		30-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Tetrachlorophenols - Total	M22-My0015410	CP	%	59		30-130	Pass	
Spike - % Recovery								
Phenols (non-Halogenated)				Result 1				
2-Cyclohexyl-4,6-dinitrophenol	M22-My0015410	CP	%	43		30-130	Pass	
2-Methyl-4,6-dinitrophenol	M22-My0015410	CP	%	39		30-130	Pass	
2-Nitrophenol	M22-My0015410	CP	%	85		30-130	Pass	
2,4-Dimethylphenol	M22-My0015410	CP	%	91		30-130	Pass	
2,4-Dinitrophenol	M22-My0015410	CP	%	48		30-130	Pass	
2-Methylphenol (o-Cresol)	M22-My0015410	CP	%	58		30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M22-My0015410	CP	%	61		30-130	Pass	
4-Nitrophenol	M22-My0015410	CP	%	65		30-130	Pass	
Dinoseb	M22-My0015410	CP	%	44		30-130	Pass	
Phenol	M22-My0015410	CP	%	71		30-130	Pass	
Spike - % Recovery								
				Result 1				
Cyanide (total)	M22-My0015410	CP	%	85		70-130	Pass	
Spike - % Recovery								
				Result 1				
Chromium (hexavalent)	M22-My0017204	NCP	%	97		70-130	Pass	
Spike - % Recovery								
Heavy Metals				Result 1				
Arsenic	M22-My0015412	CP	%	90		75-125	Pass	
Cadmium	M22-My0015412	CP	%	108		75-125	Pass	
Copper	M22-My0015412	CP	%	110		75-125	Pass	
Lead	M22-My0015412	CP	%	98		75-125	Pass	
Mercury	M22-My0015412	CP	%	95		75-125	Pass	
Molybdenum	M22-My0015412	CP	%	104		75-125	Pass	
Nickel	M22-My0015412	CP	%	122		75-125	Pass	
Selenium	M22-My0015412	CP	%	90		75-125	Pass	
Silver	M22-My0015412	CP	%	111		75-125	Pass	
Tin	M22-My0015412	CP	%	101		75-125	Pass	
Zinc	M22-My0015412	CP	%	86		75-125	Pass	
Spike - % Recovery								
Polycyclic Aromatic Hydrocarbons				Result 1				
Acenaphthene	M22-My0015418	CP	%	110		70-130	Pass	
Acenaphthylene	M22-My0015418	CP	%	119		70-130	Pass	
Anthracene	M22-My0015418	CP	%	98		70-130	Pass	
Benz(a)anthracene	M22-My0015418	CP	%	92		70-130	Pass	
Benzo(a)pyrene	M22-My0015418	CP	%	102		70-130	Pass	
Benzo(b&j)fluoranthene	M22-My0015418	CP	%	86		70-130	Pass	
Benzo(g,h,i)perylene	M22-My0015418	CP	%	95		70-130	Pass	
Benzo(k)fluoranthene	M22-My0015418	CP	%	113		70-130	Pass	
Chrysene	M22-My0015418	CP	%	121		70-130	Pass	
Dibenz(a,h)anthracene	M22-My0015418	CP	%	123		70-130	Pass	
Fluoranthene	M22-My0015418	CP	%	92		70-130	Pass	
Fluorene	M22-My0015418	CP	%	110		70-130	Pass	
Indeno(1,2,3-cd)pyrene	M22-My0015418	CP	%	118		70-130	Pass	
Naphthalene	M22-My0015418	CP	%	105		70-130	Pass	
Phenanthrene	M22-My0015418	CP	%	87		70-130	Pass	
Pyrene	M22-My0015418	CP	%	93		70-130	Pass	
Spike - % Recovery								
Phenols (Halogenated)				Result 1				
2-Chlorophenol	M22-My0015418	CP	%	88		30-130	Pass	
2,4-Dichlorophenol	M22-My0015418	CP	%	87		30-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
2.4.5-Trichlorophenol	M22-My0015418	CP	%	69		30-130	Pass	
2.4.6-Trichlorophenol	M22-My0015418	CP	%	71		30-130	Pass	
2.6-Dichlorophenol	M22-My0015418	CP	%	71		30-130	Pass	
4-Chloro-3-methylphenol	M22-My0015418	CP	%	70		30-130	Pass	
Pentachlorophenol	M22-My0015418	CP	%	48		30-130	Pass	
Tetrachlorophenols - Total	M22-My0015418	CP	%	54		30-130	Pass	
Spike - % Recovery								
Phenols (non-Halogenated)				Result 1				
2-Methyl-4.6-dinitrophenol	M22-My0015418	CP	%	31		30-130	Pass	
2-Nitrophenol	M22-My0015418	CP	%	78		30-130	Pass	
2.4-Dimethylphenol	M22-My0015418	CP	%	79		30-130	Pass	
2-Methylphenol (o-Cresol)	M22-My0015418	CP	%	73		30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M22-My0015418	CP	%	92		30-130	Pass	
4-Nitrophenol	M22-My0015418	CP	%	43		30-130	Pass	
Dinoseb	M22-My0015418	CP	%	38		30-130	Pass	
Phenol	M22-My0015418	CP	%	77		30-130	Pass	
Spike - % Recovery								
Heavy Metals				Result 1				
Arsenic	M22-My0015419	CP	%	97		75-125	Pass	
Cadmium	M22-My0015419	CP	%	106		75-125	Pass	
Chromium	M22-My0015419	CP	%	98		75-125	Pass	
Copper	M22-My0015419	CP	%	105		75-125	Pass	
Lead	M22-My0015419	CP	%	101		75-125	Pass	
Mercury	M22-My0015419	CP	%	100		75-125	Pass	
Molybdenum	M22-My0015419	CP	%	107		75-125	Pass	
Nickel	M22-My0015419	CP	%	97		75-125	Pass	
Selenium	M22-My0015419	CP	%	92		75-125	Pass	
Silver	M22-My0015419	CP	%	107		75-125	Pass	
Tin	M22-My0015419	CP	%	101		75-125	Pass	
Zinc	M22-My0015419	CP	%	95		75-125	Pass	
Spike - % Recovery								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1				
Perfluorobutanoic acid (PFBA)	M22-My0015419	CP	%	104		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M22-My0015419	CP	%	115		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M22-My0015419	CP	%	117		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-My0015419	CP	%	119		50-150	Pass	
Perfluorooctanoic acid (PFOA)	M22-My0015419	CP	%	115		50-150	Pass	
Perfluorononanoic acid (PFNA)	M22-My0015419	CP	%	144		50-150	Pass	
Perfluorodecanoic acid (PFDA)	M22-My0015419	CP	%	89		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-My0015419	CP	%	141		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-My0015419	CP	%	111		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	M22-My0015419	CP	%	113		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-My0015419	CP	%	113		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonamido substances				Result 1				
Perfluorooctane sulfonamide (FOSA)	M22-My0015419	CP	%	124		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0015419	CP	%	128		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0015419	CP	%	126		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0015419	CP	%	121		50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0015419	CP	%	117		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0015419	CP	%	76		50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0015419	CP	%	89		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1				
Perfluorobutanesulfonic acid (PFBS)	M22-My0015419	CP	%	105		50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-My0015419	CP	%	150		50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-My0015419	CP	%	129		50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-My0015419	CP	%	99		50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-My0015419	CP	%	105		50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0015419	CP	%	60		50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-My0015419	CP	%	117		50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-My0015419	CP	%	135		50-150	Pass	
Spike - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1				
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-My0015419	CP	%	111		50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0015419	CP	%	120		50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0015419	CP	%	107		50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0015419	CP	%	147		50-150	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons				Result 1				
TRH C6-C9	M22-My0015420	CP	%	85		70-130	Pass	
Naphthalene	M22-My0015420	CP	%	83		70-130	Pass	
TRH C6-C10	M22-My0015420	CP	%	83		70-130	Pass	
Spike - % Recovery								
Volatile Organics				Result 1				
1.1-Dichloroethene	M22-My0015420	CP	%	94		70-130	Pass	
1.1.1-Trichloroethane	M22-My0015420	CP	%	72		70-130	Pass	
1.2-Dichlorobenzene	M22-My0015420	CP	%	78		70-130	Pass	
1.2-Dichloroethane	M22-My0015420	CP	%	82		70-130	Pass	
Benzene	M22-My0015420	CP	%	83		70-130	Pass	
Ethylbenzene	M22-My0015420	CP	%	71		70-130	Pass	
m&p-Xylenes	M22-My0015420	CP	%	71		70-130	Pass	
o-Xylene	M22-My0015420	CP	%	73		70-130	Pass	
Toluene	M22-My0015420	CP	%	84		70-130	Pass	
Trichloroethene	M22-My0015420	CP	%	71		70-130	Pass	
Xylenes - Total*	M22-My0015420	CP	%	72		70-130	Pass	
Spike - % Recovery								
Polycyclic Aromatic Hydrocarbons				Result 1				
Acenaphthene	M22-My0015420	CP	%	97		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Acenaphthylene	M22-My0015420	CP	%	108			70-130	Pass	
Anthracene	M22-My0015420	CP	%	83			70-130	Pass	
Benz(a)anthracene	M22-My0015420	CP	%	89			70-130	Pass	
Benzo(a)pyrene	M22-My0015420	CP	%	81			70-130	Pass	
Benzo(b&i)fluoranthene	M22-My0015420	CP	%	94			70-130	Pass	
Benzo(g,h,i)perylene	M22-My0015420	CP	%	120			70-130	Pass	
Benzo(k)fluoranthene	M22-My0015420	CP	%	81			70-130	Pass	
Chrysene	M22-My0015420	CP	%	86			70-130	Pass	
Dibenz(a,h)anthracene	M22-My0015420	CP	%	116			70-130	Pass	
Fluoranthene	M22-My0015420	CP	%	83			70-130	Pass	
Fluorene	M22-My0015420	CP	%	99			70-130	Pass	
Indeno(1,2,3-cd)pyrene	M22-My0015420	CP	%	115			70-130	Pass	
Naphthalene	M22-My0015420	CP	%	88			70-130	Pass	
Phenanthrene	M22-My0015420	CP	%	91			70-130	Pass	
Pyrene	M22-My0015420	CP	%	82			70-130	Pass	
Spike - % Recovery									
Phenols (Halogenated)				Result 1					
2-Chlorophenol	M22-My0015420	CP	%	83			30-130	Pass	
2,4-Dichlorophenol	M22-My0015420	CP	%	59			30-130	Pass	
2,4,5-Trichlorophenol	M22-My0015420	CP	%	68			30-130	Pass	
2,4,6-Trichlorophenol	M22-My0015420	CP	%	68			30-130	Pass	
2,6-Dichlorophenol	M22-My0015420	CP	%	82			30-130	Pass	
4-Chloro-3-methylphenol	M22-My0015420	CP	%	69			30-130	Pass	
Pentachlorophenol	M22-My0015420	CP	%	58			30-130	Pass	
Tetrachlorophenols - Total	M22-My0015420	CP	%	57			30-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
2-Cyclohexyl-4,6-dinitrophenol	M22-My0015420	CP	%	33			30-130	Pass	
2-Methyl-4,6-dinitrophenol	M22-My0015420	CP	%	54			30-130	Pass	
2-Nitrophenol	M22-My0015420	CP	%	81			30-130	Pass	
2,4-Dimethylphenol	M22-My0015420	CP	%	77			30-130	Pass	
2,4-Dinitrophenol	M22-My0015420	CP	%	53			30-130	Pass	
2-Methylphenol (o-Cresol)	M22-My0015420	CP	%	81			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M22-My0015420	CP	%	71			30-130	Pass	
4-Nitrophenol	M22-My0015420	CP	%	63			30-130	Pass	
Dinoseb	M22-My0015420	CP	%	33			30-130	Pass	
Phenol	M22-My0015420	CP	%	71			30-130	Pass	
Spike - % Recovery									
				Result 1					
Cyanide (total)	M22-My0015420	CP	%	81			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	M22-My0015409	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	M22-My0015409	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M22-My0015409	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M22-My0015409	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Naphthalene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M22-My0015409	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	M22-My0015409	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M22-My0015409	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	M22-My0015409	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Hexachlorobutadiene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
1.1-Dichloroethane	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.4-Trichlorobenzene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1-Dichloroethene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.1-Trichloroethane	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.1.2-Tetrachloroethane	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.2-Trichloroethane	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.2.2-Tetrachloroethane	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dibromoethane	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichlorobenzene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichloroethane	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichloropropane	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.3-Trichloropropane	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.4-Trimethylbenzene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3-Dichlorobenzene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3-Dichloropropane	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3.5-Trimethylbenzene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.4-Dichlorobenzene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Butanone (MEK)	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Propanone (Acetone)	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chlorotoluene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Methyl-2-pentanone (MIBK)	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Allyl chloride	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzene	M22-My0015409	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Bromobenzene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromochloromethane	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromodichloromethane	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromoform	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromomethane	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon disulfide	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon Tetrachloride	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chlorobenzene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroethane	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroform	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloromethane	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.2-Dichloroethene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.3-Dichloropropene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromochloromethane	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromomethane	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorodifluoromethane	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ethylbenzene	M22-My0015409	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Iodomethane	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Isopropyl benzene (Cumene)	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
m&p-Xylenes	M22-My0015409	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Methylene Chloride	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
o-Xylene	M22-My0015409	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Styrene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Tetrachloroethene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Toluene	M22-My0015409	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
trans-1.2-Dichloroethene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1.3-Dichloropropene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichloroethene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichlorofluoromethane	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Vinyl chloride	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Xylenes - Total*	M22-My0015409	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass

Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	M22-My0015409	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4,4'-DDD	M22-My0015409	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDE	M22-My0015409	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	M22-My0015409	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	M22-My0015409	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	M22-My0015409	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	M22-My0015409	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	M22-My0015409	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	M22-My0015409	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	M22-My0015409	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	M22-My0015409	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	M22-My0015409	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	M22-My0015409	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	M22-My0015409	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	M22-My0015409	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	M22-My0015409	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	M22-My0015409	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	M22-My0015409	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	M22-My0015409	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	M22-My0015409	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	M22-My0015409	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	M22-My0015409	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	M22-My0015409	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	M22-My0015409	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	M22-My0015409	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	M22-My0015409	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	M22-My0015409	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2-Chlorophenol	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dichlorophenol	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4,5-Trichlorophenol	M22-My0015409	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4,6-Trichlorophenol	M22-My0015409	CP	mg/kg	< 1	< 1	<1	30%	Pass

Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
4-Chloro-3-methylphenol	M22-My0015409	CP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	M22-My0015409	CP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	M22-My0015409	CP	mg/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4,6-dinitrophenol	M22-My0015409	CP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4,6-dinitrophenol	M22-My0015409	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	M22-My0015409	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4-Dimethylphenol	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dinitrophenol	M22-My0015409	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	M22-My0015409	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	M22-My0015409	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	M22-My0015409	CP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	M22-My0015409	CP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	M22-My0015409	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Cyanide (total)	M22-My0015409	CP	mg/kg	< 5	< 5	<1	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	M22-My0015409	CP	mg/kg	23	24	1.0	30%	Pass
Cadmium	M22-My0015409	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	M22-My0015409	CP	mg/kg	160	160	4.0	30%	Pass
Copper	M22-My0015409	CP	mg/kg	73	74	1.0	30%	Pass
Lead	M22-My0015409	CP	mg/kg	< 5	< 5	<1	30%	Pass
Mercury	M22-My0015409	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Molybdenum	M22-My0015409	CP	mg/kg	< 5	< 5	<1	30%	Pass
Nickel	M22-My0015409	CP	mg/kg	220	220	1.0	30%	Pass
Selenium	M22-My0015409	CP	mg/kg	< 2	< 2	<1	30%	Pass
Silver	M22-My0015409	CP	mg/kg	< 2	< 2	<1	30%	Pass
Tin	M22-My0015409	CP	mg/kg	< 10	< 10	<1	30%	Pass
Zinc	M22-My0015409	CP	mg/kg	140	140	2.0	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	M22-My0015411	CP	mg/kg	50	44	15	30%	Pass
Cadmium	M22-My0015411	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	M22-My0015411	CP	mg/kg	160	150	5.0	30%	Pass
Copper	M22-My0015411	CP	mg/kg	73	67	9.0	30%	Pass
Lead	M22-My0015411	CP	mg/kg	5.1	< 5	7.0	30%	Pass
Mercury	M22-My0015411	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Molybdenum	M22-My0015411	CP	mg/kg	< 5	< 5	<1	30%	Pass
Nickel	M22-My0015411	CP	mg/kg	190	190	1.0	30%	Pass
Selenium	M22-My0015411	CP	mg/kg	< 2	< 2	<1	30%	Pass
Silver	M22-My0015411	CP	mg/kg	< 2	< 2	<1	30%	Pass
Tin	M22-My0015411	CP	mg/kg	< 10	< 10	<1	30%	Pass
Zinc	M22-My0015411	CP	mg/kg	140	130	7.0	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Chromium (hexavalent)	M22-My0015412	CP	mg/kg	1.3	1.4	6.0	30%	Pass
pH (1:5 Aqueous extract at 25°C as rec.)	M22-My0015412	CP	pH Units	7.9	7.9	pass	30%	Pass

Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	M22-My0015412	CP	mg/kg	28	29	4.0	30%	Pass
Cadmium	M22-My0015412	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	M22-My0015412	CP	mg/kg	200	200	3.0	30%	Pass
Copper	M22-My0015412	CP	mg/kg	78	81	3.0	30%	Pass
Lead	M22-My0015412	CP	mg/kg	< 5	< 5	<1	30%	Pass
Mercury	M22-My0015412	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Molybdenum	M22-My0015412	CP	mg/kg	< 5	< 5	<1	30%	Pass
Nickel	M22-My0015412	CP	mg/kg	260	270	3.0	30%	Pass
Selenium	M22-My0015412	CP	mg/kg	< 2	< 2	<1	30%	Pass
Silver	M22-My0015412	CP	mg/kg	< 2	< 2	<1	30%	Pass
Tin	M22-My0015412	CP	mg/kg	< 10	< 10	<1	30%	Pass
Zinc	M22-My0015412	CP	mg/kg	170	170	1.0	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Fluoride (Total)	M22-My0015414	CP	mg/kg	< 100	< 100	<1	30%	Pass
pH (1:5 Aqueous extract at 25°C as rec.)	M22-My0015414	CP	pH Units	8.3	8.4	pass	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Chromium (hexavalent)	M22-My0015415	CP	mg/kg	< 1	< 1	<1	30%	Pass
% Moisture	M22-My0015415	CP	%	29	29	1.0	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	M22-My0015417	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	M22-My0015417	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	M22-My0015417	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	M22-My0015417	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	M22-My0015417	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	M22-My0015417	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	M22-My0015417	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	M22-My0015417	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	M22-My0015417	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	M22-My0015417	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	M22-My0015417	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	M22-My0015417	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	M22-My0015417	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	M22-My0015417	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	M22-My0015417	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	M22-My0015417	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	M22-My0015417	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4,4'-DDD	M22-My0015417	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDE	M22-My0015417	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	M22-My0015417	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	M22-My0015417	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	M22-My0015417	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	M22-My0015417	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	M22-My0015417	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	M22-My0015417	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	M22-My0015417	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	M22-My0015417	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	M22-My0015417	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	M22-My0015417	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass

Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Endrin aldehyde	M22-My0015417	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	M22-My0015417	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	M22-My0015417	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	M22-My0015417	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	M22-My0015417	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	M22-My0015417	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	M22-My0015417	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	M22-My0015417	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	M22-My0015417	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	M22-My0015417	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	M22-My0015417	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	M22-My0015417	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	M22-My0015417	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	M22-My0015417	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	M22-My0015417	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	M22-My0015417	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2-Chlorophenol	M22-My0015417	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dichlorophenol	M22-My0015417	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4,5-Trichlorophenol	M22-My0015417	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4,6-Trichlorophenol	M22-My0015417	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,6-Dichlorophenol	M22-My0015417	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chloro-3-methylphenol	M22-My0015417	CP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	M22-My0015417	CP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	M22-My0015417	CP	mg/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4,6-dinitrophenol	M22-My0015417	CP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4,6-dinitrophenol	M22-My0015417	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	M22-My0015417	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4-Dimethylphenol	M22-My0015417	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dinitrophenol	M22-My0015417	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	M22-My0015417	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	M22-My0015417	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	M22-My0015417	CP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	M22-My0015417	CP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	M22-My0015417	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	M22-My0015418	CP	mg/kg	40	44	10	30%	Pass
Cadmium	M22-My0015418	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	M22-My0015418	CP	mg/kg	130	130	4.0	30%	Pass
Copper	M22-My0015418	CP	mg/kg	68	69	<1	30%	Pass
Lead	M22-My0015418	CP	mg/kg	< 5	< 5	<1	30%	Pass
Mercury	M22-My0015418	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Molybdenum	M22-My0015418	CP	mg/kg	< 5	< 5	<1	30%	Pass
Nickel	M22-My0015418	CP	mg/kg	200	200	3.0	30%	Pass
Selenium	M22-My0015418	CP	mg/kg	< 2	< 2	<1	30%	Pass
Silver	M22-My0015418	CP	mg/kg	< 2	< 2	<1	30%	Pass
Tin	M22-My0015418	CP	mg/kg	< 10	< 10	<1	30%	Pass
Zinc	M22-My0015418	CP	mg/kg	130	130	3.0	30%	Pass

Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0015418	CP	ug/kg	< 10	< 10	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0015418	CP	ug/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-My0015418	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-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0015418	CP	ug/kg	< 10	< 10	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0015418	CP	ug/kg	< 5	< 5	<1	30%	Pass

Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C6-C9	M22-My0015419	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C10-C14	M22-My0015419	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C15-C28	M22-My0015419	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH C29-C36	M22-My0015419	CP	mg/kg	< 50	< 50	<1	30%	Pass
Naphthalene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
TRH C6-C10	M22-My0015419	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH >C10-C16	M22-My0015419	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	M22-My0015419	CP	mg/kg	< 100	< 100	<1	30%	Pass
TRH >C34-C40	M22-My0015419	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
Hexachlorobutadiene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
1.1-Dichloroethane	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.4-Trichlorobenzene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1-Dichloroethene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.1-Trichloroethane	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.1.2-Tetrachloroethane	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.2-Trichloroethane	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.2.2-Tetrachloroethane	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dibromoethane	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichlorobenzene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichloroethane	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichloropropane	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.3-Trichloropropane	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.4-Trimethylbenzene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3-Dichlorobenzene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3-Dichloropropane	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3.5-Trimethylbenzene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.4-Dichlorobenzene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Butanone (MEK)	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Propanone (Acetone)	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chlorotoluene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Methyl-2-pentanone (MIBK)	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Allyl chloride	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzene	M22-My0015419	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Bromobenzene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromochloromethane	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromodichloromethane	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromoform	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromomethane	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon disulfide	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon Tetrachloride	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chlorobenzene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroethane	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroform	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloromethane	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.2-Dichloroethene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.3-Dichloropropene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromochloromethane	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromomethane	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorodifluoromethane	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ethylbenzene	M22-My0015419	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass

Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
Iodomethane	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Isopropyl benzene (Cumene)	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
m&p-Xylenes	M22-My0015419	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Methylene Chloride	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
o-Xylene	M22-My0015419	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Styrene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Tetrachloroethene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Toluene	M22-My0015419	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
trans-1,2-Dichloroethene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1,3-Dichloropropene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichloroethene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichlorofluoromethane	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Vinyl chloride	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Xylenes - Total*	M22-My0015419	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	M22-My0015419	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4,4'-DDD	M22-My0015419	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDE	M22-My0015419	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	M22-My0015419	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	M22-My0015419	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	M22-My0015419	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	M22-My0015419	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	M22-My0015419	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	M22-My0015419	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	M22-My0015419	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	M22-My0015419	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	M22-My0015419	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	M22-My0015419	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	M22-My0015419	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	M22-My0015419	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	M22-My0015419	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	M22-My0015419	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	M22-My0015419	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	M22-My0015419	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	M22-My0015419	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	M22-My0015419	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	M22-My0015419	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	M22-My0015419	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	M22-My0015419	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	M22-My0015419	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	M22-My0015419	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	M22-My0015419	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2-Chlorophenol	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dichlorophenol	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4,5-Trichlorophenol	M22-My0015419	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4,6-Trichlorophenol	M22-My0015419	CP	mg/kg	< 1	< 1	<1	30%	Pass
4-Chloro-3-methylphenol	M22-My0015419	CP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	M22-My0015419	CP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	M22-My0015419	CP	mg/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4,6-dinitrophenol	M22-My0015419	CP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4,6-dinitrophenol	M22-My0015419	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	M22-My0015419	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4-Dimethylphenol	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dinitrophenol	M22-My0015419	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	M22-My0015419	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	M22-My0015419	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	M22-My0015419	CP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	M22-My0015419	CP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	M22-My0015419	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Chromium (hexavalent)	M22-My0015419	CP	mg/kg	1.0	1.2	15	30%	Pass
Cyanide (total)	M22-My0015419	CP	mg/kg	< 5	< 5	<1	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	M22-My0015419	CP	mg/kg	39	40	3.0	30%	Pass
Cadmium	M22-My0015419	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	M22-My0015419	CP	mg/kg	130	140	3.0	30%	Pass
Copper	M22-My0015419	CP	mg/kg	58	59	2.0	30%	Pass
Lead	M22-My0015419	CP	mg/kg	< 5	< 5	<1	30%	Pass
Mercury	M22-My0015419	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Molybdenum	M22-My0015419	CP	mg/kg	< 5	< 5	<1	30%	Pass
Nickel	M22-My0015419	CP	mg/kg	170	170	2.0	30%	Pass
Selenium	M22-My0015419	CP	mg/kg	< 2	< 2	<1	30%	Pass
Silver	M22-My0015419	CP	mg/kg	< 2	< 2	<1	30%	Pass
Tin	M22-My0015419	CP	mg/kg	< 10	< 10	<1	30%	Pass
Zinc	M22-My0015419	CP	mg/kg	110	110	2.0	30%	Pass

Comments
Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).

Authorised by:

Michael Cassidy	Analytical Services Manager
Binila Sheen	Senior Analyst-Volatile
Carroll Lee	Senior Analyst-PFAS
Duleek Wadanamby	Senior Analyst-Organic
Emily Rosenberg	Senior Analyst-Metal
Gilbert Zhao	Senior Analyst-Volatile
Hayley Mildenhall	Senior Analyst-Inorganic
Jean Veilleuse	Senior Analyst-Organic
Kai Chen	Senior Analyst-Organic
Luke Holt	Senior Analyst-Inorganic
Mio Obata	Senior Analyst-Sample Properties
Nermeen Hanna	Senior Analyst-Inorganic



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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Company		AGON Environmental - Tunnel Spoil Testing		Project No	JC0927		Project Manager	Craig Trimbur		Sampler(s)	HK - EP Risk LR - EP Risk	
Address		Unit H76, 63-85 Turner St, Port Melbourne VIC 3207		Project Name	WGTP-Tunnel Ref: 20220507043703-Eurofin-21		EDD Format	ESdet		Handed over by		
Contact Name		Craig Trimbur David Lawson		Special Directions	Spot Sample Preparation Subs: WGTP-H-TREU/PAU/Phenol/CPY/PCP/VO2/Vinyl Chloride/Hexah (As Cd, Cr, Cu, Ni, Pb, Ag, Sn, Mn, Se, Zr) Over Cd Total Number PT PFAS Extended Suite - 0-1-5ug/kg ASLP PH 5 - PFAS 0:01-0:05 ug/l ASLP Phosphate - PFAS 0:01-0:05ug/l		Containers	500mL Plastic 250mL Plastic 125mL Plastic 200mL Amber Glass 40mL VOA vial 500mL PFAS Bottle Jir (Glass or HDPE) Other (Indicates ICS04, N1, C040000)		Email for Invoice	financo@agonenviro.com.au LabReports.TST@agonenviro.com.au	
Phone No		+61 400 828 907 (Craig) +61 400 411 004 (David)		Purchase Order	Please provide an interim lab report if finalised report has not been provided by 14 days from sample receipt. Please provide eSRN along with ster sample receipt documentation.		Required Turnaround Time (TAT)	Days will be 5 days if not being		Email for Results	LabReports.TST@agonenviro.com.au agonenvirofinancial@gsdnet.com.au mother@labresults1@wgtp.com.au Amrit.Kaur@agle-analytics.com.au	
Quote ID No		AGON WGTP TST		Matrix		S		+Surcharge will apply		Overnight (reporting by 5am) <input type="checkbox"/>		
Client Sample ID		Sampled Date/Time	Matrix	S		S		Same day <input type="checkbox"/>		1 day <input type="checkbox"/>		
Sampled		Sampled	Matrix	S		S		2 days <input type="checkbox"/>		3 days <input type="checkbox"/>		
Sampled		Sampled	Matrix	S		S		5 days (Standard) <input type="checkbox"/>		Other <input type="checkbox"/>		
Sampled		Sampled	Matrix	S		S		Sample Comments		! Dangerous Goods Hazard Warning		
1	SX_IB_20220506_07_00_SS_Primary_EUF	06.05.2022 7:46	S	X	X	X	X	X				
2	SX_OB_20220506_08_00_SS_Triplicate_EUF	06.05.2022 8:00	S	X	X	X	X	X				
3	SX_OB_20220506_11_54_SS_Primary_EUF	06.05.2022 11:54	S	X	X	X	X	X				
4	SX_IB_20220506_12_02_SS_Primary_EUF	06.05.2022 12:02	S	X	X	X	X	X				
5	SX_IB_20220506_15_59_SR_Rinseate_EUF	06.05.2022 15:50	W			X						
6	SX_IB_20220506_15_50_SB_Blank_EUF	06.05.2022 15:50	W			X						
7	SX_IB_20220506_16_13_SS_Primary_EUF	06.05.2022 16:13	S	X	X	X	X	X				
8	SX_IB_20220506_16_14_SS_Duplicate_EUF	06.05.2022 16:14	S	X	X	X	X	X				
9	SX_IB_20220506_19_54_SS_Primary_EUF	06.05.2022 19:54	S	X	X	X	X	X				
10	SX_IB_20220506_19_55_SS_Duplicate_EUF	06.05.2022 19:55	S	X	X	X	X	X				
11	SX_OB_20220506_20_06_SS_Primary_EUF	06.05.2022 20:06	S	X	X	X	X	X				
12	SX_IB_20220506_23_55_SS_Primary_EUF	06.05.2022 23:55	S	X	X	X	X	X				
13	SX_IB_20220507_03_56_SS_Primary_EUF	07.05.2022 03:58	S	X	X	X	X	X				
14	SX_OB_20220507_04_11_SS_Primary_EUF	07.05.2022 04:11	S	X	X	X	X	X				
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
Total Counts				12	12	14	12	12				14
Method #	Shipment	Course #	Hand Delivered	Postal	Name	Signature	Date	Time	Temp	Time	Temp	Report No
			<input checked="" type="checkbox"/>	<input type="checkbox"/>	Willco		7-5-22	9:30	11.7°			
Laboratory Use Only	Received By											
	Received By											

886296

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 **886296-L**
Project name **20220507043703-Eurofin-21**
Project ID **JC0927**
Received Date **May 07, 2022**

Client Sample ID			SX_IB_202205 06_07_46_SS_ Primary_EUF	SX_OB_20220 506_08_00_SS _Triplicate_EU F	SX_OB_20220 506_11_54_SS _Primary_EUF	SX_IB_202205 06_12_02_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- My0017218	M22- My0017219	M22- My0017220	M22- My0017221
Date Sampled			May 06, 2022	May 06, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	5.1	5.1	5.1	5.1
pH (off)	0.1	pH Units	5.2	5.1	5.1	5.2
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	66	61	58	52
13C5-PFPeA (surr.)	1	%	69	74	75	71
13C5-PFHxA (surr.)	1	%	74	70	69	63
13C4-PFHpA (surr.)	1	%	88	73	65	65
13C8-PFOA (surr.)	1	%	93	68	54	67
13C5-PFNA (surr.)	1	%	100	82	57	68
13C6-PFDA (surr.)	1	%	94	73	46	61
13C2-PFUnDA (surr.)	1	%	83	73	28	59
13C2-PFDoDA (surr.)	1	%	73	57	19	42
13C2-PFTeDA (surr.)	1	%	31	22	10	15

Client Sample ID			SX_IB_202205 06_07_46_SS_ Primary_EUF	SX_OB_20220 506_08_00_SS TriPLICATE_EU F	SX_OB_20220 506_11_54_SS Primary_EUF	SX_IB_202205 06_12_02_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- My0017218	M22- My0017219	M22- My0017220	M22- My0017221
Date Sampled			May 06, 2022	May 06, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	125	103	64	84
D3-N-MeFOSA (surr.)	1	%	80	147	60	96
D5-N-EtFOSA (surr.)	1	%	81	149	49	108
D7-N-MeFOSE (surr.)	1	%	128	122	66	86
D9-N-EtFOSE (surr.)	1	%	107	112	43	81
D5-N-EtFOSAA (surr.)	1	%	47	13	11	32
D3-N-MeFOSAA (surr.)	1	%	62	51	20	39
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	60	67	68	55
18O2-PFHxS (surr.)	1	%	108	81	74	74
13C8-PFOS (surr.)	1	%	83	71	51	60
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	120	90	81	78
13C2-6:2 FTSA (surr.)	1	%	86	67	56	52
13C2-8:2 FTSA (surr.)	1	%	60	61	35	47
13C2-10:2 FTSA (surr.)	1	%	66	53	15	31
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_IB_202205_06_16_13_SS_Primary_EUF	SX_IB_202205_06_16_14_SS_Duplicate_EUF	SX_IB_202205_06_19_54_SS_Primary_EUF	SX_IB_202205_06_19_55_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-My0017222	M22-My0017223	M22-My0017224	M22-My0017225
Date Sampled			May 06, 2022	May 06, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	5.1	5.1	5.1	5.1
pH (off)	0.1	pH Units	5.2	5.2	5.2	5.2
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	59	56	60	53
13C5-PFPeA (surr.)	1	%	67	63	70	67
13C5-PFHxA (surr.)	1	%	63	65	72	62
13C4-PFHpA (surr.)	1	%	73	72	70	65
13C8-PFOA (surr.)	1	%	67	69	63	58
13C5-PFNA (surr.)	1	%	62	55	70	52
13C6-PFDA (surr.)	1	%	36	38	62	29
13C2-PFUnDA (surr.)	1	%	46	42	55	34
13C2-PFDoDA (surr.)	1	%	35	26	52	18
13C2-PFTeDA (surr.)	1	%	13	12	26	15
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	73	66	87	61
D3-N-MeFOSA (surr.)	1	%	88	58	117	78
D5-N-EtFOSA (surr.)	1	%	89	58	141	75
D7-N-MeFOSE (surr.)	1	%	60	67	104	64
D9-N-EtFOSE (surr.)	1	%	65	51	91	52
D5-N-EtFOSAA (surr.)	1	%	14	16	43	13
D3-N-MeFOSAA (surr.)	1	%	20	25	37	15

Client Sample ID			SX_IB_202205 06_16_13_SS_ Primary_EUF	SX_IB_202205 06_16_14_SS_ Duplicate_EUF	SX_IB_202205 06_19_54_SS_ Primary_EUF	SX_IB_202205 06_19_55_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- My0017222	M22- My0017223	M22- My0017224	M22- My0017225
Date Sampled			May 06, 2022	May 06, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFASs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	52	55	76	68
18O2-PFHxS (surr.)	1	%	89	76	83	76
13C8-PFOS (surr.)	1	%	53	52	59	53
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	100	93	89	80
13C2-6:2 FTSA (surr.)	1	%	71	67	69	47
13C2-8:2 FTSA (surr.)	1	%	42	49	46	39
13C2-10:2 FTSA (surr.)	1	%	37	17	34	28
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_OB_20220 506_20_06_SS_ Primary_EUF	SX_IB_202205 06_23_55_SS_ Primary_EUF	SX_IB_202205 07_03_58_SS_ Primary_EUF	SX_OB_20220 507_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- My0017226	M22- My0017227	M22- My0017228	M22- My0017229
Date Sampled			May 06, 2022	May 06, 2022	May 07, 2022	May 07, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	N/A	N/A	N/A	N/A
pH (Leachate fluid)	0.1	pH Units	5.1	5.1	5.1	5.1
pH (off)	0.1	pH Units	5.2	5.2	5.2	5.2

Client Sample ID			SX_OB_20220 506_20_06_SS _Primary_EUF	SX_IB_202205 06_23_55_SS _Primary_EUF	SX_IB_202205 07_03_58_SS _Primary_EUF	SX_OB_20220 507_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- My0017226	M22- My0017227	M22- My0017228	M22- My0017229
Date Sampled			May 06, 2022	May 06, 2022	May 07, 2022	May 07, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	85	64	55	60
13C5-PFPeA (surr.)	1	%	114	71	60	73
13C5-PFHxA (surr.)	1	%	98	76	62	72
13C4-PFHpA (surr.)	1	%	101	78	67	74
13C8-PFOA (surr.)	1	%	86	82	60	62
13C5-PFNA (surr.)	1	%	93	86	49	63
13C6-PFDA (surr.)	1	%	89	81	40	72
13C2-PFUnDA (surr.)	1	%	65	87	35	55
13C2-PFDoDA (surr.)	1	%	35	84	22	53
13C2-PFTeDA (surr.)	1	%	12	39	14	21
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	116	114	63	92
D3-N-MeFOSA (surr.)	1	%	65	140	45	122
D5-N-EtFOSA (surr.)	1	%	45	164	38	111
D7-N-MeFOSE (surr.)	1	%	85	120	59	92
D9-N-EtFOSE (surr.)	1	%	74	122	51	80
D5-N-EtFOSAA (surr.)	1	%	32	55	11	15
D3-N-MeFOSAA (surr.)	1	%	38	65	15	28
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoronanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			SX_OB_20220506_20_06_SS_Primary_EUF	SX_IB_20220506_23_55_SS_Primary_EUF	SX_IB_20220507_03_58_SS_Primary_EUF	SX_OB_20220507_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-My0017226	M22-My0017227	M22-My0017228	M22-My0017229
Date Sampled			May 06, 2022	May 06, 2022	May 07, 2022	May 07, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFASs)						
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	111	66	67	74
18O2-PFHxS (surr.)	1	%	102	86	83	80
13C8-PFOS (surr.)	1	%	94	76	54	58
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	106	123	84	90
13C2-6:2 FTSA (surr.)	1	%	105	78	52	74
13C2-8:2 FTSA (surr.)	1	%	62	82	34	48
13C2-10:2 FTSA (surr.)	1	%	41	68	18	46
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_IB_20220506_07_46_SS_Primary_EUF	SX_OB_20220506_08_00_SS_Triplicate_EUF	SX_OB_20220506_11_54_SS_Primary_EUF	SX_IB_20220506_12_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-My0017230	M22-My0017231	M22-My0017232	M22-My0017233
Date Sampled			May 06, 2022	May 06, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		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	6.7	6.7	6.7	6.7
pH (off)	0.1	pH Units	8.5	8.4	8.4	8.8
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			SX_IB_202205 06_07_46_SS_ Primary_EUF	SX_OB_20220 506_08_00_SS TriPLICATE_EU F	SX_OB_20220 506_11_54_SS Primary_EUF	SX_IB_202205 06_12_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- My0017230	M22- My0017231	M22- My0017232	M22- My0017233
Date Sampled			May 06, 2022	May 06, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	95	103	119	105
13C5-PFPeA (surr.)	1	%	92	100	112	106
13C5-PFHxA (surr.)	1	%	87	102	118	99
13C4-PFHpA (surr.)	1	%	92	101	111	92
13C8-PFOA (surr.)	1	%	106	103	105	89
13C5-PFNA (surr.)	1	%	106	106	120	95
13C6-PFDA (surr.)	1	%	116	107	117	93
13C2-PFUnDA (surr.)	1	%	84	111	143	84
13C2-PFDoDA (surr.)	1	%	103	120	127	88
13C2-PFTeDA (surr.)	1	%	131	105	124	78
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	118	55	78	104
D3-N-MeFOSA (surr.)	1	%	39	18	15	53
D5-N-EtFOSA (surr.)	1	%	63	11	11	58
D7-N-MeFOSE (surr.)	1	%	112	37	39	76
D9-N-EtFOSE (surr.)	1	%	112	60	59	76
D5-N-EtFOSAA (surr.)	1	%	79	94	140	48
D3-N-MeFOSAA (surr.)	1	%	52	130	169	81
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	80	100	133	109
18O2-PFHxS (surr.)	1	%	91	124	56	99
13C8-PFOS (surr.)	1	%	91	113	123	96

Client Sample ID			SX_IB_202205 06_07_46_SS_ Primary_EUF	SX_OB_20220 506_08_00_SS TriPLICATE_EU F	SX_OB_20220 506_11_54_SS Primary_EUF	SX_IB_202205 06_12_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- My0017230	M22- My0017231	M22- My0017232	M22- My0017233
Date Sampled			May 06, 2022	May 06, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	96	101	101	106
13C2-6:2 FTSA (surr.)	1	%	96	82	126	111
13C2-8:2 FTSA (surr.)	1	%	111	102	124	87
13C2-10:2 FTSA (surr.)	1	%	103	137	103	69
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_IB_202205 06_16_13_SS_ Primary_EUF	SX_IB_202205 06_16_14_SS_ Duplicate_EUF	SX_IB_202205 06_19_54_SS_ Primary_EUF	SX_IB_202205 06_19_55_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- My0017234	M22- My0017235	M22- My0017236	M22- My0017237
Date Sampled			May 06, 2022	May 06, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		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	6.7	6.7	6.7	6.7
pH (off)	0.1	pH Units	8.6	8.9	8.9	8.9
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTTrDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	96	102	99	87

Client Sample ID			SX_IB_202205 06_16_13_SS_ Primary_EUF	SX_IB_202205 06_16_14_SS_ Duplicate_EUF	SX_IB_202205 06_19_54_SS_ Primary_EUF	SX_IB_202205 06_19_55_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- My0017234	M22- My0017235	M22- My0017236	M22- My0017237
Date Sampled			May 06, 2022	May 06, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C5-PFPeA (surr.)	1	%	104	103	97	88
13C5-PFHxA (surr.)	1	%	95	105	103	97
13C4-PFHpA (surr.)	1	%	100	111	106	99
13C8-PFOA (surr.)	1	%	119	105	110	99
13C5-PFNA (surr.)	1	%	104	74	106	103
13C6-PFDA (surr.)	1	%	113	107	105	108
13C2-PFUnDA (surr.)	1	%	97	94	103	126
13C2-PFDoDA (surr.)	1	%	74	111	96	118
13C2-PFTeDA (surr.)	1	%	83	130	126	104
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	96	130	107	119
D3-N-MeFOSA (surr.)	1	%	39	19	21	42
D5-N-EtFOSA (surr.)	1	%	44	64	26	46
D7-N-MeFOSE (surr.)	1	%	53	117	74	85
D9-N-EtFOSE (surr.)	1	%	78	131	98	102
D5-N-EtFOSAA (surr.)	1	%	131	14	141	146
D3-N-MeFOSAA (surr.)	1	%	131	123	81	100
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	^{N09} 0.06	< 0.01	< 0.01	^{N09} 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	73	99	113	105
18O2-PFHxS (surr.)	1	%	105	115	128	119
13C8-PFOS (surr.)	1	%	94	107	104	105

Client Sample ID			SX_IB_202205_06_16_13_SS_Primary_EUF	SX_IB_202205_06_16_14_SS_Duplicate_EUF	SX_IB_202205_06_19_54_SS_Primary_EUF	SX_IB_202205_06_19_55_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-My0017234	M22-My0017235	M22-My0017236	M22-My0017237
Date Sampled			May 06, 2022	May 06, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	0.05	ug/L	0.14	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	112	107	96	99
13C2-6:2 FTSA (surr.)	1	%	77	111	108	125
13C2-8:2 FTSA (surr.)	1	%	102	117	107	101
13C2-10:2 FTSA (surr.)	1	%	103	148	92	108
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	0.06	< 0.01	< 0.01	0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	0.06	< 0.01	< 0.01	0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	0.06	< 0.01	< 0.01	0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	0.2	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	0.2	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_OB_20220_506_20_06_SS_Primary_EUF	SX_IB_202205_06_23_55_SS_Primary_EUF	SX_IB_202205_07_03_58_SS_Primary_EUF	SX_OB_20220_507_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-My0017238	M22-My0017239	M22-My0017240	M22-My0017241
Date Sampled			May 06, 2022	May 06, 2022	May 07, 2022	May 07, 2022
Test/Reference	LOR	Unit				
AUS Leaching Procedure						
Leachate Fluid ^{C01}		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	6.7	6.7	6.7	6.7
pH (off)	0.1	pH Units	8.6	8.9	8.9	8.7
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	98	106	93	96
13C5-PFPeA (surr.)	1	%	104	109	84	90

Client Sample ID			SX_OB_20220506_20_06_SS_Primary_EUF	SX_IB_20220506_23_55_SS_Primary_EUF	SX_IB_20220507_03_58_SS_Primary_EUF	SX_OB_20220507_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-My0017238	M22-My0017239	M22-My0017240	M22-My0017241
Date Sampled			May 06, 2022	May 06, 2022	May 07, 2022	May 07, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C5-PFHxA (surr.)	1	%	101	109	92	88
13C4-PFHpA (surr.)	1	%	95	125	81	82
13C8-PFOA (surr.)	1	%	89	118	83	82
13C5-PFNA (surr.)	1	%	89	122	96	72
13C6-PFDA (surr.)	1	%	93	138	55	54
13C2-PFUnDA (surr.)	1	%	92	145	74	32
13C2-PFDoDA (surr.)	1	%	79	159	57	61
13C2-PFTeDA (surr.)	1	%	86	169	31	46
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	101	139	105	89
D3-N-MeFOSA (surr.)	1	%	149	104	149	41
D5-N-EtFOSA (surr.)	1	%	178	128	158	37
D7-N-MeFOSE (surr.)	1	%	133	136	165	67
D9-N-EtFOSE (surr.)	1	%	130	179	142	87
D5-N-EtFOSAA (surr.)	1	%	137	124	130	25
D3-N-MeFOSAA (surr.)	1	%	69	119	77	48
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	104	91	91	101
18O2-PFHxS (surr.)	1	%	82	108	76	98
13C8-PFOS (surr.)	1	%	88	115	81	78
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			SX_OB_20220 506_20_06_SS _Primary_EUF	SX_IB_202205 06_23_55_SS _Primary_EUF	SX_IB_202205 07_03_58_SS _Primary_EUF	SX_OB_20220 507_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- My0017238	M22- My0017239	M22- My0017240	M22- My0017241
Date Sampled			May 06, 2022	May 06, 2022	May 07, 2022	May 07, 2022
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
13C2-4:2 FTSA (surr.)	1	%	88	126	86	78
13C2-6:2 FTSA (surr.)	1	%	99	109	76	70
13C2-8:2 FTSA (surr.)	1	%	74	114	91	61
13C2-10:2 FTSA (surr.)	1	%	57	131	79	59
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	< 0.1	< 0.1

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 09, 2022	0 Days
pH (Leachate fluid) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	May 09, 2022	0 Days
pH (off) - Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes	Melbourne	May 09, 2022	0 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 09, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 09, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFASs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 09, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 09, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 07, 2022	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 7, 2022 9:30 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	886296	Due:	May 16, 2022
Project Name:	20220507043703-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	SX_IB_20220506_07_46_SS_Primary_EUF	May 06, 2022	7:46AM	Soil	M22-My0017204		X	X	X
2	SX_OB_20220506_08_00_SS_Triplicate_EUF	May 06, 2022	8:00AM	Soil	M22-My0017205		X	X	X
3	SX_OB_20220506_11_54_SS_Primary_EUF	May 06, 2022	11:54AM	Soil	M22-My0017206		X	X	X
4	SX_IB_202205	May 06, 2022	12:02PM	Soil	M22-		X	X	X

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

Project Name: 20220507043703-Eurofin-21
Project ID: JC0927

Order No.:
Report #: 886296
Phone: 08 8338 1009
Fax:

Received: May 7, 2022 9:30 AM
Due: May 16, 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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	06_12_02_SS _Primary_EUF				My0017207				
5	SX_IB_202205 06_15_50_SR _Rinsate_EUF	May 06, 2022	3:50PM	Water	M22- My0017208			X	
6	SX_IB_202205 06_15_50_SB _Blank_EUF	May 06, 2022	3:50PM	Water	M22- My0017209			X	
7	SX_IB_202205 06_16_13_SS _Primary_EUF	May 06, 2022	4:13PM	Soil	M22- My0017210		X	X	X
8	SX_IB_202205 06_16_14_SS _Duplicate_EU	May 06, 2022	4:14PM	Soil	M22- My0017211		X	X	X

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 7, 2022 9:30 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	886296	Due:	May 16, 2022
Project Name:	20220507043703-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	_Duplicate_EU F								
9	SX_IB_20220506_19_54_SS_Primary_EUF	May 06, 2022	7:54PM	Soil	M22-My0017212		X	X	X
10	SX_IB_20220506_19_55_SS_Duplicate_EUF	May 06, 2022	7:55PM	Soil	M22-My0017213		X	X	X
11	SX_OB_20220506_20_06_SS_Primary_EUF	May 06, 2022	8:06PM	Soil	M22-My0017214		X	X	X
12	SX_IB_202205	May 06, 2022	11:55PM	Soil	M22-		X	X	X

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Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	886296	Due:	May 16, 2022
Project Name:	20220507043703-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	06_23_55_SS _Primary_EUF				My0017215				
13	SX_IB_202205 07_03_58_SS _Primary_EUF	May 07, 2022	3:58AM	Soil	M22- My0017216		X	X	X
14	SX_OB_20220 507_04_11_S S_Primary_EU F	May 07, 2022	4:11AM	Soil	M22- My0017217		X	X	X
15	SX_IB_202205 06_07_46_SS _Primary_EUF	May 06, 2022	7:46AM	AUS Leachate - pH 5.0	M22- My0017218	X		X	
16	SX_OB_20220 506_08_00_S	May 06, 2022	8:00AM	AUS Leachate - pH 5.0	M22- My0017219	X		X	

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Project Name:	20220507043703-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	506_08_00_S S_Triplicate_E UF			- pH 5.0	My0017219				
17	SX_OB_20220 506_11_54_S S_Primary_EU F	May 06, 2022	11:54AM	AUS Leachate - pH 5.0	M22- My0017220	X		X	
18	SX_IB_202205 06_12_02_SS _Primary_EUF	May 06, 2022	12:02PM	AUS Leachate - pH 5.0	M22- My0017221	X		X	
19	SX_IB_202205 06_16_13_SS _Primary_EUF	May 06, 2022	4:13PM	AUS Leachate - pH 5.0	M22- My0017222	X		X	
20	SX_IB_202205	May 06, 2022	4:14PM	AUS Leachate	M22-	X		X	

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Project Name:	20220507043703-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	06_16_14_SS _Duplicate_EU F			- pH 5.0	My0017223				
21	SX_IB_202205 06_19_54_SS _Primary_EUF	May 06, 2022	7:54PM	AUS Leachate - pH 5.0	M22- My0017224	X		X	
22	SX_IB_202205 06_19_55_SS _Duplicate_EU F	May 06, 2022	7:55PM	AUS Leachate - pH 5.0	M22- My0017225	X		X	
23	SX_OB_20220 506_20_06_S S_Primary_EU F	May 06, 2022	8:06PM	AUS Leachate - pH 5.0	M22- My0017226	X		X	

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

Project Name: 20220507043703-Eurofin-21
Project ID: JC0927

Order No.:
Report #: 886296
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Received: May 7, 2022 9:30 AM
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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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
24	SX_IB_20220506_23_55_SS_Primary_EUF	May 06, 2022	11:55PM	AUS Leachate - pH 5.0	M22-My0017227	X		X	
25	SX_IB_20220507_03_58_SS_Primary_EUF	May 07, 2022	3:58AM	AUS Leachate - pH 5.0	M22-My0017228	X		X	
26	SX_OB_20220507_04_11_S_S_Primary_EUF	May 07, 2022	4:11AM	AUS Leachate - pH 5.0	M22-My0017229	X		X	
27	SX_IB_20220506_07_46_SS_Primary_EUF	May 06, 2022	7:46AM	AUS Leachate - Reagent Water	M22-My0017230	X		X	
28	SX_OB_20220506_08_00AM	May 06, 2022	8:00AM	AUS Leachate	M22-	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 7, 2022 9:30 AM
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Project Name:	20220507043703-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	506_08_00_S S_Triplicate_E UF			- Reagent Water	My0017231				
29	SX_OB_20220 506_11_54_S S_Primary_EU F	May 06, 2022	11:54AM	AUS Leachate - Reagent Water	M22- My0017232	X		X	
30	SX_IB_202205 06_12_02_SS _Primary_EUF	May 06, 2022	12:02PM	AUS Leachate - Reagent Water	M22- My0017233	X		X	
31	SX_IB_202205 06_16_13_SS _Primary_EUF	May 06, 2022	4:13PM	AUS Leachate - Reagent Water	M22- My0017234	X		X	
32	SX_IB_202205	May 06, 2022	4:14PM	AUS Leachate	M22-	X		X	

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

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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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
32	SX_IB_20220506_16_14_SS_Duplicate_EU_F	May 06, 2022	4:14PM	AUS Leachate - Reagent Water	M22-My0017235				
33	SX_IB_20220506_19_54_SS_Primary_EUF	May 06, 2022	7:54PM	AUS Leachate - Reagent Water	M22-My0017236	X		X	
34	SX_IB_20220506_19_55_SS_Duplicate_EU_F	May 06, 2022	7:55PM	AUS Leachate - Reagent Water	M22-My0017237	X		X	
35	SX_OB_20220506_20_06_S_S_Primary_EU	May 06, 2022	8:06PM	AUS Leachate - Reagent Water	M22-My0017238	X		X	

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Project Name:	20220507043703-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	F								
36	SX_IB_20220506_23_55_SS_Primary_EUF	May 06, 2022	11:55PM	AUS Leachate - Reagent Water	M22-My0017239	X		X	
37	SX_IB_20220507_03_58_SS_Primary_EUF	May 07, 2022	3:58AM	AUS Leachate - Reagent Water	M22-My0017240	X		X	
38	SX_OB_20220507_04_11_SS_Primary_EUF	May 07, 2022	4:11AM	AUS Leachate - Reagent Water	M22-My0017241	X		X	
Test Counts						24	12	38	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

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

Terms

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

QC - Acceptance Criteria

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

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

Results <10 times the LOR: No Limit

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

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

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

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

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

QC Data General Comments

- 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
Method Blank						
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	ug/L	< 0.05		0.05	Pass	
Perfluoropentanoic acid (PFPeA)	ug/L	< 0.01		0.01	Pass	
Perfluorohexanoic acid (PFHxA)	ug/L	< 0.01		0.01	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/L	< 0.01		0.01	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01		0.01	Pass	
Perfluorononanoic acid (PFNA)	ug/L	< 0.01		0.01	Pass	
Perfluorodecanoic acid (PFDA)	ug/L	< 0.01		0.01	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/L	< 0.01		0.01	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/L	< 0.01		0.01	Pass	
Perfluorotridecanoic acid (PFTTrDA)	ug/L	< 0.01		0.01	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/L	< 0.01		0.01	Pass	
Method Blank						
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)	ug/L	< 0.05		0.05	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/L	< 0.05		0.05	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/L	< 0.05		0.05	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/L	< 0.05		0.05	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	ug/L	< 0.05		0.05	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/L	< 0.05		0.05	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/L	< 0.05		0.05	Pass	
Method Blank						
Perfluoroalkyl sulfonic acids (PFASs)						
Perfluorobutanesulfonic acid (PFBS)	ug/L	< 0.01		0.01	Pass	
Perfluorononanesulfonic acid (PFNS)	ug/L	< 0.01		0.01	Pass	
Perfluoropropanesulfonic acid (PFPrS)	ug/L	< 0.01		0.01	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/L	< 0.01		0.01	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01		0.01	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01		0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01		0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01		0.01	Pass	
Method Blank						
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01		0.01	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	ug/L	< 0.05		0.05	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/L	< 0.01		0.01	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/L	< 0.01		0.01	Pass	
LCS - % Recovery						
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	%	129		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	98		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	108		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	117		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	113		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	111		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	135		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	134		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	105		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	147		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	103		50-150	Pass	

Test		Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
LCS - % Recovery									
Perfluoroalkyl sulfonamido substances									
Perfluorooctane sulfonamide (FOSA)		%	113			50-150	Pass		
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)		%	124			50-150	Pass		
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)		%	112			50-150	Pass		
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)		%	81			50-150	Pass		
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)		%	125			50-150	Pass		
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)		%	106			50-150	Pass		
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)		%	112			50-150	Pass		
LCS - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA's)									
Perfluorobutanesulfonic acid (PFBS)		%	96			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)		%	86			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)		%	134			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)		%	117			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)		%	126			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)		%	106			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)		%	98			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)		%	56			50-150	Pass		
LCS - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)									
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)		%	118			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)		%	114			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)		%	106			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
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)									
				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	M22-My0017221	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	M22-My0017221	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	M22-My0017221	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-My0017221	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	M22-My0017221	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	M22-My0017221	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M22-My0017221	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-My0017221	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-My0017221	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-My0017221	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-My0017221	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances									
				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	M22-My0017221	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0017221	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0017221	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0017221	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0017221	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-My0017221	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0017221	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-My0017221	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-My0017221	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-My0017221	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-My0017221	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-My0017221	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0017221	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-My0017221	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-My0017221	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-My0017221	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0017221	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0017221	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0017221	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-My0017231	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-My0017231	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-My0017231	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-My0017231	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-My0017231	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-My0017231	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-My0017231	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-My0017231	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-My0017231	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-My0017231	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-My0017231	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-My0017231	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0017231	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0017231	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0017231	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0017231	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0017231	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0017231	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-My0017231	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-My0017231	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-My0017231	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-My0017231	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-My0017231	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0017231	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-My0017231	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-My0017231	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-My0017231	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0017231	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0017231	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0017231	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
N09	Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.
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
Carroll Lee	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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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: **David Lawson**

Report **886296-S**
Project name **20220507043703-Eurofin-21**
Project ID **JC0927**
Received Date **May 07, 2022**

Client Sample ID			SX_IB_202205 06_07_46_SS_ Primary_EUF	SX_OB_20220 506_08_00_SS _Triplicate_EU F	SX_OB_20220 506_11_54_SS _Primary_EUF	SX_IB_202205 06_12_02_SS_ Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0017204	M22- My0017205	M22- My0017206	M22- My0017207
Date Sampled			May 06, 2022	May 06, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Volatile Organics						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SX_IB_202205 06_07_46_SS_ Primary_EUF	SX_OB_20220 506_08_00_SS TriPLICATE_EU F	SX_OB_20220 506_11_54_SS Primary_EUF	SX_IB_202205 06_12_02_SS_ Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0017204	M22- My0017205	M22- My0017206	M22- My0017207
Date Sampled			May 06, 2022	May 06, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	81	58	61	73
Toluene-d8 (surr.)	1	%	81	56	55	70
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SX_IB_202205 06_07_46_SS_ Primary_EUF	SX_OB_20220 506_08_00_SS TriPLICATE_EU F	SX_OB_20220 506_11_54_SS Primary_EUF	SX_IB_202205 06_12_02_SS_ Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0017204	M22- My0017205	M22- My0017206	M22- My0017207
Date Sampled			May 06, 2022	May 06, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	96	96	92	94
p-Terphenyl-d14 (surr.)	1	%	99	107	118	95
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchloroendate (surr.)	1	%	91	88	87	87
Tetrachloro-m-xylene (surr.)	1	%	108	113	111	106

Client Sample ID			SX_IB_202205 06_07_46_SS_ Primary_EUF	SX_OB_20220 506_08_00_SS _TriPLICATE_EU F	SX_OB_20220 506_11_54_SS _Primary_EUF	SX_IB_202205 06_12_02_SS_ Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0017204	M22- My0017205	M22- My0017206	M22- My0017207
Date Sampled			May 06, 2022	May 06, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchloroendate (surr.)	1	%	91	88	87	87
Tetrachloro-m-xylene (surr.)	1	%	108	113	111	106
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4,5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,4,6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4,6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4,6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2,4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	90	59	81	75
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Chromium (hexavalent)						
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Cyanide (total)						
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
Fluoride (Total)						
Fluoride (Total)	100	mg/kg	< 100	< 100	< 100	< 100
pH (1:5 Aqueous extract at 25°C as rec.)						
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	7.8	7.8	8.1	8.0
% Moisture						
% Moisture	1	%	30	35	32	29
Heavy Metals						
Arsenic	2	mg/kg	46	36	27	48
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	130	210	160	140
Copper	5	mg/kg	65	110	77	73
Lead	5	mg/kg	< 5	< 5	< 5	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_IB_202205 06_07_46_SS_ Primary_EUF	SX_OB_20220 506_08_00_SS TriPLICATE_EU F	SX_OB_20220 506_11_54_SS Primary_EUF	SX_IB_202205 06_12_02_SS_ Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0017204	M22- My0017205	M22- My0017206	M22- My0017207
Date Sampled			May 06, 2022	May 06, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
Heavy Metals						
Molybdenum	5	mg/kg	< 5	< 5	< 5	< 5
Nickel	5	mg/kg	190	330	230	210
Selenium	2	mg/kg	< 2	2.3	< 2	< 2
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	120	220	140	130
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTrDA) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	82	84	82	83
13C5-PFPeA (surr.)	1	%	80	76	85	74
13C5-PFHxA (surr.)	1	%	69	72	72	71
13C4-PFHpA (surr.)	1	%	62	67	67	63
13C8-PFOA (surr.)	1	%	77	72	73	73
13C5-PFNA (surr.)	1	%	76	83	75	79
13C6-PFDA (surr.)	1	%	99	100	109	110
13C2-PFUnDA (surr.)	1	%	121	131	106	121
13C2-PFDoDA (surr.)	1	%	98	99	94	101
13C2-PFTeDA (surr.)	1	%	91	119	110	122
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	91	95	95	87
D3-N-MeFOSA (surr.)	1	%	74	106	93	107
D5-N-EtFOSA (surr.)	1	%	77	82	73	81
D7-N-MeFOSE (surr.)	1	%	80	52	100	97
D9-N-EtFOSE (surr.)	1	%	82	89	83	86
D5-N-EtFOSAA (surr.)	1	%	76	71	89	133
D3-N-MeFOSAA (surr.)	1	%	48	60	79	98

Client Sample ID			SX_IB_202205 06_07_46_SS_ Primary_EUF	SX_OB_20220 506_08_00_SS TriPLICATE_EU F	SX_OB_20220 506_11_54_SS Primary_EUF	SX_IB_202205 06_12_02_SS_ Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0017204	M22- My0017205	M22- My0017206	M22- My0017207
Date Sampled			May 06, 2022	May 06, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFASs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	105	106	100	103
18O2-PFHxS (surr.)	1	%	101	111	85	111
13C8-PFOS (surr.)	1	%	85	96	82	84
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	96	93	85	95
13C2-6:2 FTSA (surr.)	1	%	86	102	82	84
13C2-8:2 FTSA (surr.)	1	%	95	101	87	96
13C2-10:2 FTSA (surr.)	1	%	81	63	71	71
PFASs Summations						
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	< 10	< 10	< 10
Sum of PFASs (n=30)*	50	ug/kg	< 50	< 50	< 50	< 50

Client Sample ID			SX_IB_202205 06_16_13_SS_ Primary_EUF	SX_IB_202205 06_16_14_SS_ Duplicate_EUF	SX_IB_202205 06_19_54_SS_ Primary_EUF	SX_IB_202205 06_19_55_SS_ Duplicate_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0017210	M22- My0017211	M22- My0017212	M22- My0017213
Date Sampled			May 06, 2022	May 06, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20

Client Sample ID			SX_IB_202205 06_16_13_SS_ Primary_EUF	SX_IB_202205 06_16_14_SS_ Duplicate_EUF	SX_IB_202205 06_19_54_SS_ Primary_EUF	SX_IB_202205 06_19_55_SS_ Duplicate_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0017210	M22- My0017211	M22- My0017212	M22- My0017213
Date Sampled			May 06, 2022	May 06, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Volatile Organics						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.1-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 06_16_13_SS Primary_EUF	SX_IB_202205 06_16_14_SS Duplicate_EUF	SX_IB_202205 06_19_54_SS Primary_EUF	SX_IB_202205 06_19_55_SS Duplicate_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0017210	M22- My0017211	M22- My0017212	M22- My0017213
Date Sampled			May 06, 2022	May 06, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
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	%	76	80	84	81
Toluene-d8 (surr.)	1	%	72	60	67	65
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	89	101	100	94
p-Terphenyl-d14 (surr.)	1	%	99	93	78	95

Client Sample ID			SX_IB_202205 06_16_13_SS_ Primary_EUF	SX_IB_202205 06_16_14_SS_ Duplicate_EUF	SX_IB_202205 06_19_54_SS_ Primary_EUF	SX_IB_202205 06_19_55_SS_ Duplicate_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0017210	M22- My0017211	M22- My0017212	M22- My0017213
Date Sampled			May 06, 2022	May 06, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchloroendate (surr.)	1	%	112	80	97	82
Tetrachloro-m-xylene (surr.)	1	%	129	98	109	101
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchloroendate (surr.)	1	%	112	80	97	82
Tetrachloro-m-xylene (surr.)	1	%	129	98	109	101
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4,5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,4,6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1

Client Sample ID			SX_IB_202205_06_16_13_SS_Primary_EUF	SX_IB_202205_06_16_14_SS_Duplicate_EUF	SX_IB_202205_06_19_54_SS_Primary_EUF	SX_IB_202205_06_19_55_SS_Duplicate_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-My0017210	M22-My0017211	M22-My0017212	M22-My0017213
Date Sampled			May 06, 2022	May 06, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	79	58	88	79
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Chromium (hexavalent)						
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Cyanide (total)						
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
Fluoride (Total)						
Fluoride (Total)	100	mg/kg	< 100	< 100	< 100	< 100
pH (1:5 Aqueous extract at 25°C as rec.)						
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	8.3	7.7	7.4	8.5
% Moisture						
% Moisture	1	%	25	28	30	32
Heavy Metals						
Arsenic	2	mg/kg	51	40	46	38
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	180	130	150	120
Copper	5	mg/kg	85	69	77	61
Lead	5	mg/kg	5.5	< 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	240	200	220	170
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	160	130	160	110
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTTrDA) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	83	83	82	80
13C5-PFPeA (surr.)	1	%	77	79	69	76
13C5-PFHxA (surr.)	1	%	71	70	67	66

Client Sample ID			SX_IB_202205 06_16_13_SS Primary_EUF	SX_IB_202205 06_16_14_SS Duplicate_EUF	SX_IB_202205 06_19_54_SS Primary_EUF	SX_IB_202205 06_19_55_SS Duplicate_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0017210	M22- My0017211	M22- My0017212	M22- My0017213
Date Sampled			May 06, 2022	May 06, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
13C4-PFHpA (surr.)	1	%	63	66	62	62
13C8-PFOA (surr.)	1	%	79	78	80	76
13C5-PFNA (surr.)	1	%	77	84	62	72
13C6-PFDA (surr.)	1	%	114	91	91	102
13C2-PFUnDA (surr.)	1	%	130	112	148	118
13C2-PFDoDA (surr.)	1	%	89	87	97	100
13C2-PFTeDA (surr.)	1	%	132	82	113	108
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	89	93	102	85
D3-N-MeFOSA (surr.)	1	%	96	75	90	76
D5-N-EtFOSA (surr.)	1	%	73	76	73	67
D7-N-MeFOSE (surr.)	1	%	94	77	109	81
D9-N-EtFOSE (surr.)	1	%	87	81	77	80
D5-N-EtFOSAA (surr.)	1	%	44	132	139	117
D3-N-MeFOSAA (surr.)	1	%	116	62	94	101
Perfluoroalkyl sulfonic acids (PFSA)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	106	108	101	99
18O2-PFHxS (surr.)	1	%	101	117	113	99
13C8-PFOS (surr.)	1	%	80	73	75	75
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	91	93	93	86
13C2-6:2 FTSA (surr.)	1	%	82	98	71	79

Client Sample ID			SX_IB_202205_06_16_13_SS_Primary_EUF	SX_IB_202205_06_16_14_SS_Duplicate_EUF	SX_IB_202205_06_19_54_SS_Primary_EUF	SX_IB_202205_06_19_55_SS_Duplicate_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-My0017210	M22-My0017211	M22-My0017212	M22-My0017213
Date Sampled			May 06, 2022	May 06, 2022	May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
13C2-8:2 FTSA (surr.)	1	%	86	89	81	79
13C2-10:2 FTSA (surr.)	1	%	87	73	110	72
PFASs Summations						
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	< 10	< 10	< 10
Sum of PFASs (n=30)*	50	ug/kg	< 50	< 50	< 50	< 50

Client Sample ID			SX_OB_20220506_20_06_SS_Primary_EUF	SX_IB_202205_06_23_55_SS_Primary_EUF	SX_IB_202205_07_03_58_SS_Primary_EUF	SX_OB_20220507_04_11_SS_Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22-My0017214	M22-My0017215	M22-My0017216	M22-My0017217
Date Sampled			May 06, 2022	May 06, 2022	May 07, 2022	May 07, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Volatile Organics						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SX_OB_20220 506_20_06_SS _Primary_EUF	SX_IB_202205 06_23_55_SS _Primary_EUF	SX_IB_202205 07_03_58_SS _Primary_EUF	SX_OB_20220 507_04_11_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0017214	M22- My0017215	M22- My0017216	M22- My0017217
Date Sampled			May 06, 2022	May 06, 2022	May 07, 2022	May 07, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
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	%	76	80	81	81
Toluene-d8 (surr.)	1	%	138	63	67	65

Client Sample ID			SX_OB_20220 506_20_06_SS _Primary_EUF	SX_IB_202205 06_23_55_SS _Primary_EUF	SX_IB_202205 07_03_58_SS _Primary_EUF	SX_OB_20220 507_04_11_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0017214	M22- My0017215	M22- My0017216	M22- My0017217
Date Sampled			May 06, 2022	May 06, 2022	May 07, 2022	May 07, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	92	97	94	93
p-Terphenyl-d14 (surr.)	1	%	76	97	97	56
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SX_OB_20220 506_20_06_SS _Primary_EUF	SX_IB_202205 06_23_55_SS _Primary_EUF	SX_IB_202205 07_03_58_SS _Primary_EUF	SX_OB_20220 507_04_11_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0017214	M22- My0017215	M22- My0017216	M22- My0017217
Date Sampled			May 06, 2022	May 06, 2022	May 07, 2022	May 07, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Dibutylchlorendate (surr.)	1	%	88	86	84	68
Tetrachloro-m-xylene (surr.)	1	%	88	98	109	108
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	88	86	84	68
Tetrachloro-m-xylene (surr.)	1	%	88	98	109	108
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4,5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,4,6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4,6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4,6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2,4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	39	39	68	36
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Chromium (hexavalent)						
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
Fluoride (Total)	100	mg/kg	< 100	< 100	< 100	< 100
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	7.9	8.3	8.2	7.8
% Moisture	1	%	30	28	30	31

Client Sample ID			SX_OB_20220 506_20_06_SS _Primary_EUF	SX_IB_202205 06_23_55_SS _Primary_EUF	SX_IB_202205 07_03_58_SS _Primary_EUF	SX_OB_20220 507_04_11_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0017214	M22- My0017215	M22- My0017216	M22- My0017217
Date Sampled			May 06, 2022	May 06, 2022	May 07, 2022	May 07, 2022
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	13	47	49	52
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	67	150	140	110
Copper	5	mg/kg	35	79	74	58
Lead	5	mg/kg	8.3	< 5	< 5	7.0
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	86	240	220	150
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	65	140	140	110
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanoic acid (PFOA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanoic acid (PFNA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTeDA) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	74	73	79	70
13C5-PFPeA (surr.)	1	%	72	65	79	67
13C5-PFHxA (surr.)	1	%	62	60	64	56
13C4-PFHpA (surr.)	1	%	57	54	60	55
13C8-PFOA (surr.)	1	%	67	71	75	61
13C5-PFNA (surr.)	1	%	74	68	69	52
13C6-PFDA (surr.)	1	%	96	84	79	105
13C2-PFUnDA (surr.)	1	%	112	100	109	97
13C2-PFDoDA (surr.)	1	%	83	80	91	86
13C2-PFTeDA (surr.)	1	%	109	98	113	109
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	87	82	96	78
D3-N-MeFOSA (surr.)	1	%	90	81	89	89

Client Sample ID			SX_OB_20220 506_20_06_SS _Primary_EUF	SX_IB_202205 06_23_55_SS _Primary_EUF	SX_IB_202205 07_03_58_SS _Primary_EUF	SX_OB_20220 507_04_11_SS _Primary_EUF
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M22- My0017214	M22- My0017215	M22- My0017216	M22- My0017217
Date Sampled			May 06, 2022	May 06, 2022	May 07, 2022	May 07, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
D5-N-EtFOSA (surr.)	1	%	65	68	70	64
D7-N-MeFOSE (surr.)	1	%	75	45	99	91
D9-N-EtFOSE (surr.)	1	%	71	67	85	69
D5-N-EtFOSAA (surr.)	1	%	72	37	158	109
D3-N-MeFOSAA (surr.)	1	%	87	64	114	61
Perfluoroalkyl sulfonic acids (PFASs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) ^{N15}	5	ug/kg	< 5	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	91	89	98	86
18O2-PFHxS (surr.)	1	%	90	111	114	73
13C8-PFOS (surr.)	1	%	83	68	82	81
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	10	ug/kg	< 10	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	5	ug/kg	< 5	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	78	88	90	71
13C2-6:2 FTSA (surr.)	1	%	75	67	74	69
13C2-8:2 FTSA (surr.)	1	%	82	69	66	66
13C2-10:2 FTSA (surr.)	1	%	96	57	77	62
PFASs Summations						
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	< 5	< 5	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	< 10	< 10	< 10
Sum of PFASs (n=30)*	50	ug/kg	< 50	< 50	< 50	< 50

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 09, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	May 09, 2022	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	May 09, 2022	14 Days
Volatile Organics - Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS	Melbourne	May 09, 2022	7 Days
Volatile Organics - Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)	Melbourne	May 09, 2022	7 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 09, 2022	14 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)	Melbourne	May 09, 2022	14 Days
Polychlorinated Biphenyls - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082)	Melbourne	May 09, 2022	28 Days
Phenols (Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 09, 2022	14 Days
Phenols (non-Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 09, 2022	14 Days
Chromium (hexavalent) - Method: LTM-INO-4100 Hexavalent Chromium by Spectrometric detection - Method: LTM-INO-4230 Hexavalent Chromium by UV-Vis	Melbourne	May 09, 2022	28 Days
Cyanide (total) - Method: LTM-INO-4020 Total Free WAD Cyanide by CFA	Melbourne	May 10, 2022	14 Days
Fluoride (Total) - Method: LTM-INO-4150 Determination of Total Fluoride PART B – ISE	Melbourne	May 10, 2022	28 Days
pH (1:5 Aqueous extract at 25°C as rec.) - Method: LTM-GEN-7090 pH in soil by ISE	Melbourne	May 09, 2022	7 Days
Metals IWRG 621 : Metals M12 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	May 09, 2022	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Melbourne	May 07, 2022	14 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 09, 2022	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 09, 2022	28 Days
Perfluoroalkyl sulfonic acids (PFSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 09, 2022	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 09, 2022	28 Days
PFASs Summations - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Melbourne	May 07, 2022	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 7, 2022 9:30 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	886296	Due:	May 16, 2022
Project Name:	20220507043703-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	SX_IB_20220506_07_46_SS_Primary_EUF	May 06, 2022	7:46AM	Soil	M22-My0017204		X	X	X
2	SX_OB_20220506_08_00_SS_Triplicate_EUF	May 06, 2022	8:00AM	Soil	M22-My0017205		X	X	X
3	SX_OB_20220506_11_54_SS_Primary_EUF	May 06, 2022	11:54AM	Soil	M22-My0017206		X	X	X
4	SX_IB_20220506_12_02PM	May 06, 2022	12:02PM	Soil	M22-		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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	06_12_02_SS _Primary_EUF				My0017207				
5	SX_IB_202205 06_15_50_SR _Rinsate_EUF	May 06, 2022	3:50PM	Water	M22- My0017208			X	
6	SX_IB_202205 06_15_50_SB _Blank_EUF	May 06, 2022	3:50PM	Water	M22- My0017209			X	
7	SX_IB_202205 06_16_13_SS _Primary_EUF	May 06, 2022	4:13PM	Soil	M22- My0017210		X	X	X
8	SX_IB_202205 06_16_14_SS _Duplicate_EU	May 06, 2022	4:14PM	Soil	M22- My0017211		X	X	X

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Project ID:	JC0927	Fax:		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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	_Duplicate_EU F								
9	SX_IB_20220506_19_54_SS_Primary_EUF	May 06, 2022	7:54PM	Soil	M22-My0017212		X	X	X
10	SX_IB_20220506_19_55_SS_Duplicate_EUF	May 06, 2022	7:55PM	Soil	M22-My0017213		X	X	X
11	SX_OB_20220506_20_06_SS_Primary_EUF	May 06, 2022	8:06PM	Soil	M22-My0017214		X	X	X
12	SX_IB_202205	May 06, 2022	11:55PM	Soil	M22-		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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	06_23_55_SS _Primary_EUF				My0017215				
13	SX_IB_202205 07_03_58_SS _Primary_EUF	May 07, 2022	3:58AM	Soil	M22- My0017216		X	X	X
14	SX_OB_20220 507_04_11_S S_Primary_EU F	May 07, 2022	4:11AM	Soil	M22- My0017217		X	X	X
15	SX_IB_202205 06_07_46_SS _Primary_EUF	May 06, 2022	7:46AM	AUS Leachate - pH 5.0	M22- My0017218	X		X	
16	SX_OB_20220 506_08_00_S	May 06, 2022	8:00AM	AUS Leachate - pH 5.0	M22- My0017219	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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	506_08_00_S S_Triplicate_E UF			- pH 5.0	My0017219				
17	SX_OB_20220 506_11_54_S S_Primary_EU F	May 06, 2022	11:54AM	AUS Leachate - pH 5.0	M22- My0017220	X		X	
18	SX_IB_202205 06_12_02_SS _Primary_EUF	May 06, 2022	12:02PM	AUS Leachate - pH 5.0	M22- My0017221	X		X	
19	SX_IB_202205 06_16_13_SS _Primary_EUF	May 06, 2022	4:13PM	AUS Leachate - pH 5.0	M22- My0017222	X		X	
20	SX_IB_202205	May 06, 2022	4:14PM	AUS Leachate	M22-	X		X	

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Project Name: 20220507043703-Eurofin-21
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Eurofins Analytical Services Manager : Michael Cassidy

Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFAS)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	06_16_14_SS_Duplicate_EU_F			- pH 5.0	My0017223				
21	SX_IB_20220506_19_54_SS_Primary_EUF	May 06, 2022	7:54PM	AUS Leachate - pH 5.0	M22-My0017224	X		X	
22	SX_IB_20220506_19_55_SS_Duplicate_EU_F	May 06, 2022	7:55PM	AUS Leachate - pH 5.0	M22-My0017225	X		X	
23	SX_OB_20220506_20_06_S_S_Primary_EU_F	May 06, 2022	8:06PM	AUS Leachate - pH 5.0	M22-My0017226	X		X	

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Project ID:	JC0927	Fax:		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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
24	SX_IB_20220506_23_55_SS_Primary_EUF	May 06, 2022	11:55PM	AUS Leachate - pH 5.0	M22-My0017227	X		X	
25	SX_IB_20220507_03_58_SS_Primary_EUF	May 07, 2022	3:58AM	AUS Leachate - pH 5.0	M22-My0017228	X		X	
26	SX_OB_20220507_04_11_S_S_Primary_EUF	May 07, 2022	4:11AM	AUS Leachate - pH 5.0	M22-My0017229	X		X	
27	SX_IB_20220506_07_46_SS_Primary_EUF	May 06, 2022	7:46AM	AUS Leachate - Reagent Water	M22-My0017230	X		X	
28	SX_OB_20220506_08_00AM	May 06, 2022	8:00AM	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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	506_08_00_S S_Triplicate_E UF			- Reagent Water	My0017231				
29	SX_OB_20220 506_11_54_S S_Primary_EU F	May 06, 2022	11:54AM	AUS Leachate - Reagent Water	M22- My0017232	X		X	
30	SX_IB_202205 06_12_02_SS _Primary_EUF	May 06, 2022	12:02PM	AUS Leachate - Reagent Water	M22- My0017233	X		X	
31	SX_IB_202205 06_16_13_SS _Primary_EUF	May 06, 2022	4:13PM	AUS Leachate - Reagent Water	M22- My0017234	X		X	
32	SX_IB_202205	May 06, 2022	4:14PM	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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
32	SX_IB_20220506_16_14_SS_Duplicate_EU_F	May 06, 2022	4:14PM	AUS Leachate - Reagent Water	M22-My0017235				
33	SX_IB_20220506_19_54_SS_Primary_EUF	May 06, 2022	7:54PM	AUS Leachate - Reagent Water	M22-My0017236	X		X	
34	SX_IB_20220506_19_55_SS_Duplicate_EU_F	May 06, 2022	7:55PM	AUS Leachate - Reagent Water	M22-My0017237	X		X	
35	SX_OB_20220506_20_06_S_S_Primary_EU	May 06, 2022	8:06PM	AUS Leachate - Reagent Water	M22-My0017238	X		X	

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Sample Detail						AUS Leaching Procedure	Moisture Set	Per- and Polyfluoroalkyl Substances (PFASs)	IWRG 621 WQTP Suite
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	F								
36	SX_IB_20220506_23_55_SS_Primary_EUF	May 06, 2022	11:55PM	AUS Leachate - Reagent Water	M22-My0017239	X		X	
37	SX_IB_20220507_03_58_SS_Primary_EUF	May 07, 2022	3:58AM	AUS Leachate - Reagent Water	M22-My0017240	X		X	
38	SX_OB_20220507_04_11_S_S_Primary_EUF	May 07, 2022	4:11AM	AUS Leachate - Reagent Water	M22-My0017241	X		X	
Test Counts						24	12	38	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

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

Terms

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

QC - Acceptance Criteria

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

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

Results <10 times the LOR: No Limit

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

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

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

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

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

QC Data General Comments

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

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Dibromochloromethane	mg/kg	< 0.5			0.5	Pass	
Dibromomethane	mg/kg	< 0.5			0.5	Pass	
Dichlorodifluoromethane	mg/kg	< 0.5			0.5	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
Iodomethane	mg/kg	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.5			0.5	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
Methylene Chloride	mg/kg	< 0.5			0.5	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Styrene	mg/kg	< 0.5			0.5	Pass	
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
trans-1,2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1,3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Trichloroethene	mg/kg	< 0.5			0.5	Pass	
Trichlorofluoromethane	mg/kg	< 0.5			0.5	Pass	
Vinyl chloride	mg/kg	< 0.5			0.5	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g,h,i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a,h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4,4'-DDD	mg/kg	< 0.05			0.05	Pass	
4,4'-DDE	mg/kg	< 0.05			0.05	Pass	
4,4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2,4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2,4,5-Trichlorophenol	mg/kg	< 1			1	Pass	
2,4,6-Trichlorophenol	mg/kg	< 1			1	Pass	
2,6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1	Pass	
Pentachlorophenol	mg/kg	< 1			1	Pass	
Tetrachlorophenols - Total	mg/kg	< 10			10	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4,6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4,6-dinitrophenol	mg/kg	< 5			5	Pass	
2-Nitrophenol	mg/kg	< 1			1.0	Pass	
2,4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2,4-Dinitrophenol	mg/kg	< 5			5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Chromium (hexavalent)	mg/kg	< 1			1	Pass	
Cyanide (total)	mg/kg	< 5			5	Pass	
Fluoride (Total)	mg/kg	< 100			100	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Molybdenum	mg/kg	< 5			5	Pass	
Nickel	mg/kg	< 5			5	Pass	
Selenium	mg/kg	< 2			2	Pass	
Silver	mg/kg	< 2			2	Pass	
Tin	mg/kg	< 10			10	Pass	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Zinc	mg/kg	< 5		5	Pass	
Method Blank						
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	ug/kg	< 5		5	Pass	
Perfluoropentanoic acid (PFPeA)	ug/kg	< 5		5	Pass	
Perfluorohexanoic acid (PFHxA)	ug/kg	< 5		5	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/kg	< 5		5	Pass	
Perfluorooctanoic acid (PFOA)	ug/kg	< 5		5	Pass	
Perfluorononanoic acid (PFNA)	ug/kg	< 5		5	Pass	
Perfluorodecanoic acid (PFDA)	ug/kg	< 5		5	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/kg	< 5		5	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/kg	< 5		5	Pass	
Perfluorotridecanoic acid (PFTTrDA)	ug/kg	< 5		5	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/kg	< 5		5	Pass	
Method Blank						
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)	ug/kg	< 5		5	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/kg	< 5		5	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/kg	< 5		5	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/kg	< 5		5	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	ug/kg	< 5		5	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/kg	< 10		10	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/kg	< 10		10	Pass	
Method Blank						
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)	ug/kg	< 5		5	Pass	
Perfluorononanesulfonic acid (PFNS)	ug/kg	< 5		5	Pass	
Perfluoropropanesulfonic acid (PFPrS)	ug/kg	< 5		5	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/kg	< 5		5	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/kg	< 5		5	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/kg	< 5		5	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/kg	< 5		5	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/kg	< 5		5	Pass	
Method Blank						
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/kg	< 5		5	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	ug/kg	< 10		10	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/kg	< 5		5	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/kg	< 5		5	Pass	
LCS - % Recovery						
Total Recoverable Hydrocarbons						
TRH C6-C9	%	110		70-130	Pass	
TRH C10-C14	%	114		70-130	Pass	
Naphthalene	%	82		70-130	Pass	
TRH C6-C10	%	110		70-130	Pass	
TRH >C10-C16	%	101		70-130	Pass	
LCS - % Recovery						
Volatile Organics						
1.1-Dichloroethene	%	111		70-130	Pass	
1.1.1-Trichloroethane	%	88		70-130	Pass	
1.2-Dichlorobenzene	%	91		70-130	Pass	
1.2-Dichloroethane	%	110		70-130	Pass	
Benzene	%	89		70-130	Pass	
Ethylbenzene	%	111		70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
m&p-Xylenes	%	102			70-130	Pass	
Toluene	%	107			70-130	Pass	
Trichloroethene	%	83			70-130	Pass	
Xylenes - Total*	%	103			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	111			70-130	Pass	
Acenaphthylene	%	122			70-130	Pass	
Anthracene	%	97			70-130	Pass	
Benz(a)anthracene	%	103			70-130	Pass	
Benzo(a)pyrene	%	105			70-130	Pass	
Benzo(b&i)fluoranthene	%	102			70-130	Pass	
Benzo(g,h,i)perylene	%	105			70-130	Pass	
Benzo(k)fluoranthene	%	105			70-130	Pass	
Chrysene	%	106			70-130	Pass	
Dibenz(a,h)anthracene	%	111			70-130	Pass	
Fluoranthene	%	112			70-130	Pass	
Fluorene	%	109			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	106			70-130	Pass	
Naphthalene	%	100			70-130	Pass	
Phenanthrene	%	108			70-130	Pass	
Pyrene	%	111			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	95			70-130	Pass	
4,4'-DDD	%	99			70-130	Pass	
4,4'-DDE	%	100			70-130	Pass	
4,4'-DDT	%	110			70-130	Pass	
a-HCH	%	115			70-130	Pass	
Aldrin	%	103			70-130	Pass	
b-HCH	%	105			70-130	Pass	
d-HCH	%	103			70-130	Pass	
Dieldrin	%	96			70-130	Pass	
Endosulfan I	%	107			70-130	Pass	
Endosulfan II	%	101			70-130	Pass	
Endosulfan sulphate	%	108			70-130	Pass	
Endrin	%	107			70-130	Pass	
Endrin aldehyde	%	128			70-130	Pass	
Endrin ketone	%	96			70-130	Pass	
g-HCH (Lindane)	%	94			70-130	Pass	
Heptachlor	%	103			70-130	Pass	
Heptachlor epoxide	%	124			70-130	Pass	
Hexachlorobenzene	%	73			70-130	Pass	
Methoxychlor	%	112			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	90			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	113			25-140	Pass	
2,4-Dichlorophenol	%	89			25-140	Pass	
2,4,5-Trichlorophenol	%	96			25-140	Pass	
2,4,6-Trichlorophenol	%	97			25-140	Pass	
2,6-Dichlorophenol	%	94			25-140	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4-Chloro-3-methylphenol	%	98			25-140	Pass	
Pentachlorophenol	%	74			25-140	Pass	
Tetrachlorophenols - Total	%	76			25-140	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4,6-dinitrophenol	%	64			25-140	Pass	
2-Methyl-4,6-dinitrophenol	%	67			25-140	Pass	
2-Nitrophenol	%	98			25-140	Pass	
2,4-Dimethylphenol	%	95			25-140	Pass	
2,4-Dinitrophenol	%	93			25-140	Pass	
2-Methylphenol (o-Cresol)	%	95			25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	108			25-140	Pass	
4-Nitrophenol	%	87			25-140	Pass	
Dinoseb	%	68			25-140	Pass	
Phenol	%	98			25-140	Pass	
LCS - % Recovery							
Chromium (hexavalent)	%	101			70-130	Pass	
Cyanide (total)	%	110			70-130	Pass	
Fluoride (Total)	%	114			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	109			80-120	Pass	
Cadmium	%	115			80-120	Pass	
Chromium	%	112			80-120	Pass	
Copper	%	108			80-120	Pass	
Lead	%	115			80-120	Pass	
Mercury	%	111			80-120	Pass	
Molybdenum	%	110			80-120	Pass	
Nickel	%	105			80-120	Pass	
Selenium	%	110			80-120	Pass	
Silver	%	116			80-120	Pass	
Tin	%	108			80-120	Pass	
Zinc	%	106			80-120	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	118			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	145			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	119			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	121			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	129			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	127			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	120			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	137			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	138			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	139			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	106			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	112			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	102			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	125			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	104			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	127			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	133			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	124			50-150	Pass		
LCS - % Recovery								
Perfluoroalkyl sulfonic acids (PFASs)								
Perfluorobutanesulfonic acid (PFBS)	%	111			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	129			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	126			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	121			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	135			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	70			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	117			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	126			50-150	Pass		
LCS - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	113			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	126			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	112			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	98			50-150	Pass		
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery								
Polycyclic Aromatic Hydrocarbons				Result 1				
Acenaphthene	M22-My0015420	NCP	%	97		70-130	Pass	
Acenaphthylene	M22-My0015420	NCP	%	108		70-130	Pass	
Anthracene	M22-My0015420	NCP	%	83		70-130	Pass	
Benz(a)anthracene	M22-My0015420	NCP	%	89		70-130	Pass	
Benzo(a)pyrene	M22-My0015420	NCP	%	81		70-130	Pass	
Benzo(b&i)fluoranthene	M22-My0015420	NCP	%	94		70-130	Pass	
Benzo(g,h,i)perylene	M22-My0015420	NCP	%	120		70-130	Pass	
Benzo(k)fluoranthene	M22-My0015420	NCP	%	81		70-130	Pass	
Chrysene	M22-My0015420	NCP	%	86		70-130	Pass	
Dibenz(a,h)anthracene	M22-My0015420	NCP	%	116		70-130	Pass	
Fluoranthene	M22-My0015420	NCP	%	83		70-130	Pass	
Fluorene	M22-My0015420	NCP	%	99		70-130	Pass	
Indeno(1,2,3-cd)pyrene	M22-My0015420	NCP	%	115		70-130	Pass	
Naphthalene	M22-My0015420	NCP	%	88		70-130	Pass	
Phenanthrene	M22-My0015420	NCP	%	91		70-130	Pass	
Pyrene	M22-My0015420	NCP	%	82		70-130	Pass	
Spike - % Recovery								
Organochlorine Pesticides				Result 1				
Chlordanes - Total	M22-My0018562	NCP	%	93		70-130	Pass	
4,4'-DDD	M22-My0018562	NCP	%	90		70-130	Pass	
4,4'-DDE	M22-My0018562	NCP	%	98		70-130	Pass	
4,4'-DDT	M22-My0018562	NCP	%	85		70-130	Pass	
a-HCH	M22-My0018562	NCP	%	92		70-130	Pass	
Aldrin	M22-My0018562	NCP	%	98		70-130	Pass	
b-HCH	M22-My0018562	NCP	%	72		70-130	Pass	
d-HCH	M22-My0018562	NCP	%	87		70-130	Pass	
Dieldrin	M22-My0018562	NCP	%	110		70-130	Pass	
Endosulfan I	M22-My0018562	NCP	%	82		70-130	Pass	
Endosulfan II	M22-My0018562	NCP	%	82		70-130	Pass	
Endosulfan sulphate	M22-My0018562	NCP	%	99		70-130	Pass	
Endrin	M22-My0018562	NCP	%	96		70-130	Pass	
Endrin aldehyde	M22-My0018562	NCP	%	104		70-130	Pass	
Endrin ketone	M22-My0018562	NCP	%	77		70-130	Pass	
g-HCH (Lindane)	M22-My0018562	NCP	%	93		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Heptachlor	M22-My0018562	NCP	%	104		70-130	Pass	
Heptachlor epoxide	M22-My0018562	NCP	%	95		70-130	Pass	
Hexachlorobenzene	M22-My0018562	NCP	%	108		70-130	Pass	
Methoxychlor	M22-My0018562	NCP	%	83		70-130	Pass	
Spike - % Recovery								
Polychlorinated Biphenyls				Result 1				
Aroclor-1016	M22-My0008306	NCP	%	107		70-130	Pass	
Aroclor-1260	M22-My0008306	NCP	%	103		70-130	Pass	
Spike - % Recovery								
Phenols (Halogenated)				Result 1				
2-Chlorophenol	M22-My0015420	NCP	%	83		30-130	Pass	
2,4-Dichlorophenol	M22-My0015420	NCP	%	59		30-130	Pass	
2,4,5-Trichlorophenol	M22-My0015420	NCP	%	68		30-130	Pass	
2,4,6-Trichlorophenol	M22-My0015420	NCP	%	68		30-130	Pass	
2,6-Dichlorophenol	M22-My0015420	NCP	%	82		30-130	Pass	
4-Chloro-3-methylphenol	M22-My0015420	NCP	%	69		30-130	Pass	
Pentachlorophenol	M22-My0015420	NCP	%	58		30-130	Pass	
Tetrachlorophenols - Total	M22-My0015420	NCP	%	57		30-130	Pass	
Spike - % Recovery								
Phenols (non-Halogenated)				Result 1				
2-Cyclohexyl-4,6-dinitrophenol	M22-My0015420	NCP	%	33		30-130	Pass	
2-Methyl-4,6-dinitrophenol	M22-My0015420	NCP	%	54		30-130	Pass	
2-Nitrophenol	M22-My0015420	NCP	%	81		30-130	Pass	
2,4-Dimethylphenol	M22-My0015420	NCP	%	77		30-130	Pass	
2,4-Dinitrophenol	M22-My0015420	NCP	%	53		30-130	Pass	
2-Methylphenol (o-Cresol)	M22-My0015420	NCP	%	81		30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M22-My0015420	NCP	%	71		30-130	Pass	
4-Nitrophenol	M22-My0015420	NCP	%	63		30-130	Pass	
Dinoseb	M22-My0015420	NCP	%	33		30-130	Pass	
Phenol	M22-My0015420	NCP	%	71		30-130	Pass	
Spike - % Recovery								
				Result 1				
Chromium (hexavalent)	M22-My0017204	CP	%	97		70-130	Pass	
Cyanide (total)	M22-My0015420	NCP	%	81		70-130	Pass	
Spike - % Recovery								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1				
Perfluorobutanoic acid (PFBA)	M22-My0015409	NCP	%	106		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M22-My0015409	NCP	%	119		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M22-My0015409	NCP	%	112		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-My0015409	NCP	%	115		50-150	Pass	
Perfluorooctanoic acid (PFOA)	M22-My0015409	NCP	%	126		50-150	Pass	
Perfluorononanoic acid (PFNA)	M22-My0015409	NCP	%	129		50-150	Pass	
Perfluorodecanoic acid (PFDA)	M22-My0015409	NCP	%	107		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-My0015409	NCP	%	128		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-My0015409	NCP	%	129		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	M22-My0015409	NCP	%	124		50-150	Pass	
Perfluorotetradecanoic acid (PFTTeDA)	M22-My0015409	NCP	%	117		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonamido substances				Result 1				
Perfluorooctane sulfonamide (FOSA)	M22-My0015409	NCP	%	110		50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0015409	NCP	%	121		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0015409	NCP	%	118		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0015409	NCP	%	126		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0015409	NCP	%	119		50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0015409	NCP	%	87		50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0015409	NCP	%	107		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1				
Perfluorobutanesulfonic acid (PFBS)	M22-My0015409	NCP	%	102		50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-My0015409	NCP	%	125		50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-My0015409	NCP	%	135		50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-My0015409	NCP	%	105		50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-My0015409	NCP	%	123		50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0015409	NCP	%	81		50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-My0015409	NCP	%	121		50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-My0015409	NCP	%	123		50-150	Pass	
Spike - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1				
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-My0015409	NCP	%	117		50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0015409	NCP	%	113		50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0015409	NCP	%	119		50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0015409	NCP	%	146		50-150	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons				Result 1				
TRH C6-C9	M22-My0017214	CP	%	114		70-130	Pass	
TRH C10-C14	M22-My0017214	CP	%	117		70-130	Pass	
Naphthalene	M22-My0017214	CP	%	73		70-130	Pass	
TRH C6-C10	M22-My0017214	CP	%	114		70-130	Pass	
TRH >C10-C16	M22-My0017214	CP	%	104		70-130	Pass	
Spike - % Recovery								
Volatile Organics				Result 1				
1.1-Dichloroethene	M22-My0017214	CP	%	109		70-130	Pass	
1.1.1-Trichloroethane	M22-My0017214	CP	%	83		70-130	Pass	
1.2-Dichlorobenzene	M22-My0017214	CP	%	74		70-130	Pass	
1.2-Dichloroethane	M22-My0017214	CP	%	120		70-130	Pass	
Benzene	M22-My0017214	CP	%	78		70-130	Pass	
Ethylbenzene	M22-My0017214	CP	%	89		70-130	Pass	
m&p-Xylenes	M22-My0017214	CP	%	101		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
o-Xylene	M22-My0017214	CP	%	102			70-130	Pass	
Toluene	M22-My0017214	CP	%	89			70-130	Pass	
Trichloroethene	M22-My0017214	CP	%	72			70-130	Pass	
Xylenes - Total*	M22-My0017214	CP	%	101			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M22-My0017214	CP	%	90			75-125	Pass	
Cadmium	M22-My0017214	CP	%	108			75-125	Pass	
Copper	M22-My0017214	CP	%	119			75-125	Pass	
Lead	M22-My0017214	CP	%	90			75-125	Pass	
Mercury	M22-My0017214	CP	%	98			75-125	Pass	
Molybdenum	M22-My0017214	CP	%	105			75-125	Pass	
Selenium	M22-My0017214	CP	%	108			75-125	Pass	
Silver	M22-My0017214	CP	%	107			75-125	Pass	
Tin	M22-My0017214	CP	%	101			75-125	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M22-My0017217	CP	%	80			75-125	Pass	
Cadmium	M22-My0017217	CP	%	106			75-125	Pass	
Chromium	M22-My0017217	CP	%	96			75-125	Pass	
Copper	M22-My0017217	CP	%	87			75-125	Pass	
Lead	M22-My0017217	CP	%	95			75-125	Pass	
Mercury	M22-My0017217	CP	%	98			75-125	Pass	
Molybdenum	M22-My0017217	CP	%	104			75-125	Pass	
Nickel	M22-My0017217	CP	%	88			75-125	Pass	
Selenium	M22-My0017217	CP	%	89			75-125	Pass	
Silver	M22-My0017217	CP	%	106			75-125	Pass	
Tin	M22-My0017217	CP	%	101			75-125	Pass	
Zinc	M22-My0017217	CP	%	83			75-125	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Heptachlor epoxide	M22-My0005839	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2,6-Dichlorophenol	M22-My0005839	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Chromium (hexavalent)	M22-My0014721	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Cyanide (total)	M22-My0015419	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Fluoride (Total)	M22-My0017206	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Chromium (hexavalent)	M22-My0017207	CP	mg/kg	< 1	< 1	<1	30%	Pass	
pH (1:5 Aqueous extract at 25°C as rec.)	M22-My0017207	CP	pH Units	8.0	8.0	pass	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	M22-My0017210	CP	%	25	27	6.0	30%	Pass	

Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	M22-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	M22-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	M22-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	M22-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	M22-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanoic acid (PFNA)	M22-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	M22-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	M22-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	M22-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	M22-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	M22-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0017210	CP	ug/kg	< 10	< 10	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0017210	CP	ug/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-My0017210	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-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0017210	CP	ug/kg	< 10	< 10	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0017210	CP	ug/kg	< 5	< 5	<1	30%	Pass

Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C6-C9	M22-My0017213	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C10-C14	M22-My0017213	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C15-C28	M22-My0017213	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH C29-C36	M22-My0017213	CP	mg/kg	< 50	< 50	<1	30%	Pass
Naphthalene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
TRH C6-C10	M22-My0017213	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH >C10-C16	M22-My0017213	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	M22-My0017213	CP	mg/kg	< 100	< 100	<1	30%	Pass
TRH >C34-C40	M22-My0017213	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
Hexachlorobutadiene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
1.1-Dichloroethane	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.4-Trichlorobenzene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1-Dichloroethene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.1-Trichloroethane	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.1.2-Tetrachloroethane	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.2-Trichloroethane	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.2.2-Tetrachloroethane	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dibromoethane	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichlorobenzene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichloroethane	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichloropropane	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.3-Trichloropropane	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.4-Trimethylbenzene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3-Dichlorobenzene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3-Dichloropropane	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3.5-Trimethylbenzene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.4-Dichlorobenzene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Butanone (MEK)	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Propanone (Acetone)	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chlorotoluene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Methyl-2-pentanone (MIBK)	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Allyl chloride	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzene	M22-My0017213	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Bromobenzene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromochloromethane	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromodichloromethane	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromoform	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromomethane	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon disulfide	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon Tetrachloride	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chlorobenzene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroethane	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroform	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloromethane	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.2-Dichloroethene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.3-Dichloropropene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromochloromethane	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromomethane	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorodifluoromethane	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Ethylbenzene	M22-My0017213	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass

Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
Iodomethane	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Isopropyl benzene (Cumene)	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
m&p-Xylenes	M22-My0017213	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Methylene Chloride	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
o-Xylene	M22-My0017213	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Styrene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Tetrachloroethene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Toluene	M22-My0017213	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
trans-1,2-Dichloroethene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1,3-Dichloropropene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichloroethene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichlorofluoromethane	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Vinyl chloride	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Xylenes - Total*	M22-My0017213	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	M22-My0017213	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4,4'-DDD	M22-My0017213	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDE	M22-My0017213	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	M22-My0017213	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	M22-My0017213	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	M22-My0017213	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	M22-My0017213	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	M22-My0017213	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	M22-My0017213	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	M22-My0017213	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	M22-My0017213	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	M22-My0017213	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	M22-My0017213	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	M22-My0017213	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	M22-My0017213	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	M22-My0017213	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	M22-My0017213	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	M22-My0017213	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	M22-My0017213	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	M22-My0017213	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	M22-My0017213	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	M22-My0017213	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	M22-My0017213	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	M22-My0017213	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	M22-My0017213	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	M22-My0017213	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	M22-My0017213	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2-Chlorophenol	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dichlorophenol	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4,5-Trichlorophenol	M22-My0017213	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4,6-Trichlorophenol	M22-My0017213	CP	mg/kg	< 1	< 1	<1	30%	Pass
4-Chloro-3-methylphenol	M22-My0017213	CP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	M22-My0017213	CP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	M22-My0017213	CP	mg/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4,6-dinitrophenol	M22-My0017213	CP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4,6-dinitrophenol	M22-My0017213	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	M22-My0017213	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4-Dimethylphenol	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dinitrophenol	M22-My0017213	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	M22-My0017213	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	M22-My0017213	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	M22-My0017213	CP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	M22-My0017213	CP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	M22-My0017213	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	M22-My0017213	CP	mg/kg	38	46	17	30%	Pass
Cadmium	M22-My0017213	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	M22-My0017213	CP	mg/kg	120	150	19	30%	Pass
Copper	M22-My0017213	CP	mg/kg	61	71	15	30%	Pass
Lead	M22-My0017213	CP	mg/kg	< 5	< 5	<1	30%	Pass
Mercury	M22-My0017213	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Molybdenum	M22-My0017213	CP	mg/kg	< 5	< 5	<1	30%	Pass
Nickel	M22-My0017213	CP	mg/kg	170	210	20	30%	Pass
Selenium	M22-My0017213	CP	mg/kg	< 2	3.3	78	30%	Fail
Silver	M22-My0017213	CP	mg/kg	< 2	< 2	<1	30%	Pass
Tin	M22-My0017213	CP	mg/kg	< 10	< 10	<1	30%	Pass
Zinc	M22-My0017213	CP	mg/kg	110	140	23	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	M22-My0017214	CP	mg/kg	13	13	2.0	30%	Pass
Cadmium	M22-My0017214	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	M22-My0017214	CP	mg/kg	67	66	2.0	30%	Pass
Copper	M22-My0017214	CP	mg/kg	35	35	2.0	30%	Pass
Lead	M22-My0017214	CP	mg/kg	8.3	8.2	1.0	30%	Pass
Mercury	M22-My0017214	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Molybdenum	M22-My0017214	CP	mg/kg	< 5	< 5	<1	30%	Pass
Nickel	M22-My0017214	CP	mg/kg	86	84	2.0	30%	Pass
Selenium	M22-My0017214	CP	mg/kg	< 2	< 2	<1	30%	Pass

Q15

Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Silver	M22-My0017214	CP	mg/kg	< 2	< 2	<1	30%	Pass
Tin	M22-My0017214	CP	mg/kg	< 10	< 10	<1	30%	Pass
Zinc	M22-My0017214	CP	mg/kg	65	64	2.0	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	M22-My0017217	CP	mg/kg	52	51	1.0	30%	Pass
Cadmium	M22-My0017217	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	M22-My0017217	CP	mg/kg	110	110	2.0	30%	Pass
Copper	M22-My0017217	CP	mg/kg	58	58	<1	30%	Pass
Lead	M22-My0017217	CP	mg/kg	7.0	7.1	2.0	30%	Pass
Mercury	M22-My0017217	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Molybdenum	M22-My0017217	CP	mg/kg	< 5	< 5	<1	30%	Pass
Nickel	M22-My0017217	CP	mg/kg	150	150	1.0	30%	Pass
Selenium	M22-My0017217	CP	mg/kg	< 2	< 2	<1	30%	Pass
Silver	M22-My0017217	CP	mg/kg	< 2	< 2	<1	30%	Pass
Tin	M22-My0017217	CP	mg/kg	< 10	< 10	<1	30%	Pass
Zinc	M22-My0017217	CP	mg/kg	110	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).
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:

Michael Cassidy	Analytical Services Manager
Binila Sheen	Senior Analyst-Volatile
Carroll Lee	Senior Analyst-PFAS
Duleek Wadanamby	Senior Analyst-Organic
Emily Rosenberg	Senior Analyst-Metal
Gilbert Zhao	Senior Analyst-Volatile
Hayley Mildenhall	Senior Analyst-Inorganic
Jean Veilleuse	Senior Analyst-Organic
Kai Chen	Senior Analyst-Organic
Luke Holt	Senior Analyst-Inorganic
Mio Obata	Senior Analyst-Sample Properties
Nermeen Hanna	Senior Analyst-Inorganic



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: **David Lawson**

Report **886296-W**
Project name **20220507043703-Eurofin-21**
Project ID **JC0927**
Received Date **May 07, 2022**

Client Sample ID			SX_IB_202205 06_15_50_SR_ Rinsate_EUF	SX_IB_202205 06_15_50_SB_ Blank_EUF
Sample Matrix			Water	Water
Eurofins Sample No.			M22- My0017208	M22- My0017209
Date Sampled			May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit		
Perfluoroalkyl carboxylic acids (PFCAs)				
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	135	127
13C5-PFPeA (surr.)	1	%	125	121
13C5-PFHxA (surr.)	1	%	96	106
13C4-PFHpA (surr.)	1	%	92	81
13C8-PFOA (surr.)	1	%	83	77
13C5-PFNA (surr.)	1	%	80	76
13C6-PFDA (surr.)	1	%	87	50
13C2-PFUnDA (surr.)	1	%	35	47
13C2-PFDoDA (surr.)	1	%	25	39
13C2-PFTeDA (surr.)	1	%	22	13
Perfluoroalkyl sulfonamido substances				
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	48	59

Client Sample ID			SX_IB_202205 06_15_50_SR_ Rinsate_EUF	SX_IB_202205 06_15_50_SB_ Blank_EUF
Sample Matrix			Water	Water
Eurofins Sample No.			M22- My0017208	M22- My0017209
Date Sampled			May 06, 2022	May 06, 2022
Test/Reference	LOR	Unit		
Perfluoroalkyl sulfonamido substances				
D3-N-MeFOSA (surr.)	1	%	18	14
D5-N-EtFOSA (surr.)	1	%	15	12
D7-N-MeFOSE (surr.)	1	%	48	43
D9-N-EtFOSE (surr.)	1	%	41	42
D5-N-EtFOSAA (surr.)	1	%	12	12
D3-N-MeFOSAA (surr.)	1	%	10	19
Perfluoroalkyl sulfonic acids (PFASs)				
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	110	104
18O2-PFHxS (surr.)	1	%	102	98
13C8-PFOS (surr.)	1	%	65	66
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	53	53
13C2-6:2 FTSA (surr.)	1	%	46	42
13C2-8:2 FTSA (surr.)	1	%	75	66
13C2-10:2 FTSA (surr.)	1	%	16	28
PFASs Summations				
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs)	Melbourne	May 07, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonamido substances	Melbourne	May 07, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonic acids (PFSAs)	Melbourne	May 07, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Melbourne	May 07, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
PFASs Summations	Melbourne	May 07, 2022	
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 7, 2022 9:30 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	886296	Due:	May 16, 2022
Project Name:	20220507043703-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	SX_IB_20220506_07_46_SS_Primary_EUF	May 06, 2022	7:46AM	Soil	M22-My0017204		X	X	X
2	SX_OB_20220506_08_00_SS_Triplicate_EUF	May 06, 2022	8:00AM	Soil	M22-My0017205		X	X	X
3	SX_OB_20220506_11_54_SS_Primary_EUF	May 06, 2022	11:54AM	Soil	M22-My0017206		X	X	X
4	SX_IB_20220506_12_02PM	May 06, 2022	12:02PM	Soil	M22-		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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	06_12_02_SS _Primary_EUF				My0017207				
5	SX_IB_202205 06_15_50_SR _Rinsate_EUF	May 06, 2022	3:50PM	Water	M22- My0017208			X	
6	SX_IB_202205 06_15_50_SB _Blank_EUF	May 06, 2022	3:50PM	Water	M22- My0017209			X	
7	SX_IB_202205 06_16_13_SS _Primary_EUF	May 06, 2022	4:13PM	Soil	M22- My0017210		X	X	X
8	SX_IB_202205 06_16_14_SS _Duplicate_EU	May 06, 2022	4:14PM	Soil	M22- My0017211		X	X	X

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 7, 2022 9:30 AM
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Project Name:	20220507043703-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	_Duplicate_EU F								
9	SX_IB_20220506_19_54_SS_Primary_EUF	May 06, 2022	7:54PM	Soil	M22-My0017212		X	X	X
10	SX_IB_20220506_19_55_SS_Duplicate_EUF	May 06, 2022	7:55PM	Soil	M22-My0017213		X	X	X
11	SX_OB_20220506_20_06_SS_Primary_EUF	May 06, 2022	8:06PM	Soil	M22-My0017214		X	X	X
12	SX_IB_202205	May 06, 2022	11:55PM	Soil	M22-		X	X	X

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 7, 2022 9:30 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	886296	Due:	May 16, 2022
Project Name:	20220507043703-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	06_23_55_SS _Primary_EUF				My0017215				
13	SX_IB_202205 07_03_58_SS _Primary_EUF	May 07, 2022	3:58AM	Soil	M22- My0017216		X	X	X
14	SX_OB_20220 507_04_11_S S_Primary_EU F	May 07, 2022	4:11AM	Soil	M22- My0017217		X	X	X
15	SX_IB_202205 06_07_46_SS _Primary_EUF	May 06, 2022	7:46AM	AUS Leachate - pH 5.0	M22- My0017218	X		X	
16	SX_OB_20220 506_08_00_S	May 06, 2022	8:00AM	AUS Leachate - pH 5.0	M22- My0017219	X		X	

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Project Name:	20220507043703-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	506_08_00_S S_Triplicate_E UF			- pH 5.0	My0017219				
17	SX_OB_20220 506_11_54_S S_Primary_EU F	May 06, 2022	11:54AM	AUS Leachate - pH 5.0	M22- My0017220	X		X	
18	SX_IB_202205 06_12_02_SS _Primary_EUF	May 06, 2022	12:02PM	AUS Leachate - pH 5.0	M22- My0017221	X		X	
19	SX_IB_202205 06_16_13_SS _Primary_EUF	May 06, 2022	4:13PM	AUS Leachate - pH 5.0	M22- My0017222	X		X	
20	SX_IB_202205	May 06, 2022	4:14PM	AUS Leachate	M22-	X		X	

Company Name: Agon Environmental Pty Ltd - VIC
Address: 3/224 Glen Osmond Road
Fullarton
SA 5063
Project Name: 20220507043703-Eurofin-21
Project ID: JC0927

Order No.:
Report #: 886296
Phone: 08 8338 1009
Fax:

Received: May 7, 2022 9:30 AM
Due: May 16, 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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	06_16_14_SS_Duplicate_EU_F			- pH 5.0	My0017223				
21	SX_IB_20220506_19_54_SS_Primary_EUF	May 06, 2022	7:54PM	AUS Leachate - pH 5.0	M22-My0017224	X		X	
22	SX_IB_20220506_19_55_SS_Duplicate_EU_F	May 06, 2022	7:55PM	AUS Leachate - pH 5.0	M22-My0017225	X		X	
23	SX_OB_20220506_20_06_S_S_Primary_EU_F	May 06, 2022	8:06PM	AUS Leachate - pH 5.0	M22-My0017226	X		X	

Company Name:	Agon Environmental Pty Ltd - VIC	Order No.:		Received:	May 7, 2022 9:30 AM
Address:	3/224 Glen Osmond Road Fullarton SA 5063	Report #:	886296	Due:	May 16, 2022
Project Name:	20220507043703-Eurofin-21	Phone:	08 8338 1009	Priority:	5 Day
Project ID:	JC0927	Fax:		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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
24	SX_IB_20220506_23_55_SS_Primary_EUF	May 06, 2022	11:55PM	AUS Leachate - pH 5.0	M22-My0017227	X		X	
25	SX_IB_20220507_03_58_SS_Primary_EUF	May 07, 2022	3:58AM	AUS Leachate - pH 5.0	M22-My0017228	X		X	
26	SX_OB_20220507_04_11_SS_Primary_EUF	May 07, 2022	4:11AM	AUS Leachate - pH 5.0	M22-My0017229	X		X	
27	SX_IB_20220506_07_46_SS_Primary_EUF	May 06, 2022	7:46AM	AUS Leachate - Reagent Water	M22-My0017230	X		X	
28	SX_OB_20220506_08_00AM	May 06, 2022	8:00AM	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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	506_08_00_S S_Triplicate_E UF			- Reagent Water	My0017231				
29	SX_OB_20220 506_11_54_S S_Primary_EU F	May 06, 2022	11:54AM	AUS Leachate - Reagent Water	M22- My0017232	X		X	
30	SX_IB_202205 06_12_02_SS _Primary_EUF	May 06, 2022	12:02PM	AUS Leachate - Reagent Water	M22- My0017233	X		X	
31	SX_IB_202205 06_16_13_SS _Primary_EUF	May 06, 2022	4:13PM	AUS Leachate - Reagent Water	M22- My0017234	X		X	
32	SX_IB_202205	May 06, 2022	4:14PM	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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
32	SX_IB_20220506_16_14_SS_Duplicate_EU_F	May 06, 2022	4:14PM	AUS Leachate - Reagent Water	M22-My0017235				
33	SX_IB_20220506_19_54_SS_Primary_EUF	May 06, 2022	7:54PM	AUS Leachate - Reagent Water	M22-My0017236	X		X	
34	SX_IB_20220506_19_55_SS_Duplicate_EU_F	May 06, 2022	7:55PM	AUS Leachate - Reagent Water	M22-My0017237	X		X	
35	SX_OB_20220506_20_06_S_S_Primary_EU	May 06, 2022	8:06PM	AUS Leachate - Reagent Water	M22-My0017238	X		X	

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Project Name:	20220507043703-Eurofin-21	Phone:	08 8338 1009	Priority:	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
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217									
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
	F								
36	SX_IB_20220506_23_55_SS_Primary_EUF	May 06, 2022	11:55PM	AUS Leachate - Reagent Water	M22-My0017239	X		X	
37	SX_IB_20220507_03_58_SS_Primary_EUF	May 07, 2022	3:58AM	AUS Leachate - Reagent Water	M22-My0017240	X		X	
38	SX_OB_20220507_04_11_S_S_Primary_EUF	May 07, 2022	4:11AM	AUS Leachate - Reagent Water	M22-My0017241	X		X	
Test Counts						24	12	38	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

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

Terms

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

QC - Acceptance Criteria

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

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

Results <10 times the LOR: No Limit

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

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

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

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

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

QC Data General Comments

- 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
Method Blank						
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	ug/L	< 0.05		0.05	Pass	
Perfluoropentanoic acid (PFPeA)	ug/L	< 0.01		0.01	Pass	
Perfluorohexanoic acid (PFHxA)	ug/L	< 0.01		0.01	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/L	< 0.01		0.01	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01		0.01	Pass	
Perfluorononanoic acid (PFNA)	ug/L	< 0.01		0.01	Pass	
Perfluorodecanoic acid (PFDA)	ug/L	< 0.01		0.01	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/L	< 0.01		0.01	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/L	< 0.01		0.01	Pass	
Perfluorotridecanoic acid (PFTTrDA)	ug/L	< 0.01		0.01	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/L	< 0.01		0.01	Pass	
Method Blank						
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)	ug/L	< 0.05		0.05	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/L	< 0.05		0.05	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/L	< 0.05		0.05	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/L	< 0.05		0.05	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	ug/L	< 0.05		0.05	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/L	< 0.05		0.05	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/L	< 0.05		0.05	Pass	
Method Blank						
Perfluoroalkyl sulfonic acids (PFASs)						
Perfluorobutanesulfonic acid (PFBS)	ug/L	< 0.01		0.01	Pass	
Perfluorononanesulfonic acid (PFNS)	ug/L	< 0.01		0.01	Pass	
Perfluoropropanesulfonic acid (PFPrS)	ug/L	< 0.01		0.01	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/L	< 0.01		0.01	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01		0.01	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01		0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01		0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01		0.01	Pass	
Method Blank						
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01		0.01	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	ug/L	< 0.05		0.05	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/L	< 0.01		0.01	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/L	< 0.01		0.01	Pass	
LCS - % Recovery						
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	%	77		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	141		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	101		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	114		50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	118		50-150	Pass	
Perfluorononanoic acid (PFNA)	%	103		50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	116		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	127		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	113		50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	128		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	110		50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
LCS - % Recovery								
Perfluoroalkyl sulfonamido substances								
Perfluorooctane sulfonamide (FOSA)	%	87			50-150	Pass		
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	128			50-150	Pass		
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	121			50-150	Pass		
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	66			50-150	Pass		
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	107			50-150	Pass		
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	98			50-150	Pass		
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	102			50-150	Pass		
LCS - % Recovery								
Perfluoroalkyl sulfonic acids (PFSA's)								
Perfluorobutanesulfonic acid (PFBS)	%	94			50-150	Pass		
Perfluorononanesulfonic acid (PFNS)	%	94			50-150	Pass		
Perfluoropropanesulfonic acid (PFPrS)	%	114			50-150	Pass		
Perfluoropentanesulfonic acid (PFPeS)	%	93			50-150	Pass		
Perfluorohexanesulfonic acid (PFHxS)	%	97			50-150	Pass		
Perfluoroheptanesulfonic acid (PFHpS)	%	80			50-150	Pass		
Perfluorooctanesulfonic acid (PFOS)	%	99			50-150	Pass		
Perfluorodecanesulfonic acid (PFDS)	%	90			50-150	Pass		
LCS - % Recovery								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)								
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	114			50-150	Pass		
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	96			50-150	Pass		
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	132			50-150	Pass		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	108			50-150	Pass		
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery								
Perfluoroalkyl carboxylic acids (PFCAs)								
Perfluorobutanoic acid (PFBA)	M22-My0013611	NCP	%	101		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	M22-My0013611	NCP	%	111		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	M22-My0013611	NCP	%	102		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-My0013611	NCP	%	93		50-150	Pass	
Perfluorooctanoic acid (PFOA)	M22-My0013611	NCP	%	100		50-150	Pass	
Perfluorononanoic acid (PFNA)	M22-My0013611	NCP	%	92		50-150	Pass	
Perfluorodecanoic acid (PFDA)	M22-My0013611	NCP	%	96		50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-My0013611	NCP	%	115		50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-My0013611	NCP	%	110		50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	M22-My0013611	NCP	%	146		50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	M22-My0013611	NCP	%	96		50-150	Pass	
Spike - % Recovery								
Perfluoroalkyl sulfonamido substances								
Perfluorooctane sulfonamide (FOSA)	M22-My0013611	NCP	%	103		50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0013611	NCP	%	111		50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0013611	NCP	%	100		50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0013611	NCP	%	74		50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0013611	NCP	%	110		50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0013611	NCP	%	68			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0013611	NCP	%	116			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	M22-My0013611	NCP	%	94			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-My0013611	NCP	%	80			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-My0013611	NCP	%	135			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-My0013611	NCP	%	84			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-My0013611	NCP	%	90			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0013611	NCP	%	83			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-My0013611	NCP	%	86			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-My0013611	NCP	%	62			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-My0013611	NCP	%	115			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0013611	NCP	%	122			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0013611	NCP	%	134			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0013611	NCP	%	133			50-150	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	M22-My0015687	NCP	ug/L	0.32	0.33	4.0	30%	Pass	
Perfluoropentanoic acid (PFPeA)	M22-My0015687	NCP	ug/L	0.10	0.11	9.0	30%	Pass	
Perfluorohexanoic acid (PFHxA)	M22-My0015687	NCP	ug/L	0.26	0.25	4.0	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	M22-My0015687	NCP	ug/L	0.07	0.06	15	30%	Pass	
Perfluorooctanoic acid (PFOA)	M22-My0015687	NCP	ug/L	0.18	0.17	4.0	30%	Pass	
Perfluorononanoic acid (PFNA)	M22-My0015687	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	M22-My0015687	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	M22-My0015687	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	M22-My0015687	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTTrDA)	M22-My0015687	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTEDA)	M22-My0015687	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	M22-My0015687	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-My0015687	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-My0015687	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-My0015687	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-My0015687	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-My0015687	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-My0015687	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	M22-My0015687	NCP	ug/L	0.06	0.05	18	30%	Pass
Perfluorononanesulfonic acid (PFNS)	M22-My0015687	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	M22-My0015687	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	M22-My0015687	NCP	ug/L	0.02	0.01	14	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	M22-My0015687	NCP	ug/L	0.18	0.15	17	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	M22-My0015687	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	M22-My0015687	NCP	ug/L	0.17	0.15	13	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	M22-My0015687	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-My0015687	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-My0015687	NCP	ug/L	3.5	3.7	5.0	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-My0015687	NCP	ug/L	0.09	0.08	13	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-My0015687	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Comments
Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	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
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
Jean Veilleuse	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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CERTIFICATE OF ANALYSIS

Work Order : **EM2208272**
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 : 20220506044503-ALS-21
Sampler : ES - EP Risk, LR - EP Risk
Site : 20220506044503-ALS-21
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 : 06-May-2022 14:24
Date Analysis Commenced : 06-May-2022
Issue Date : 12-May-2022 16:03



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
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 Contact for details.

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

- EP231X: (EM2208272-003,004) PFAS analysis was performed by taking an aliquot of sample from the supplied container.
- EP231X: Poor matrix spike recovery for sample EM2208040-008 due to sample matrix interference.
- EG048G: EM2208411 #6, 7, 13 result for hexavalent chromium has been confirmed by re-preparation and re-analysis.
- 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 EM2208040-008 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.



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_OB_20220505_08_06_SS_Primary_ALS	SX_OB_20220505_08_08_SS_Duplicate_ALS	SX_IB_20220505_12_17_SS_Primary_ALS	SX_IB_20220505_15_50_SS_Primary_ALS	SX_IB_20220505_15_57_SS_Triplicate_ALS
Sampling date / time				05-May-2022 08:06	05-May-2022 08:08	05-May-2022 12:17	05-May-2022 15:50	05-May-2022 15:57
Compound	CAS Number	LOR	Unit	EM2208272-001	EM2208272-002	EM2208272-005	EM2208272-006	EM2208272-007
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	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_20220505_08_06_SS_Primary_ALS	SX_OB_20220505_08_08_SS_Duplicate_ALS	SX_IB_20220505_12_17_SS_Primary_ALS	SX_IB_20220505_15_50_SS_Primary_ALS	SX_IB_20220505_15_57_SS_Triplicate_ALS
Sampling date / time				05-May-2022 08:06	05-May-2022 08:08	05-May-2022 12:17	05-May-2022 15:50	05-May-2022 15:57
Compound	CAS Number	LOR	Unit	EM2208272-001	EM2208272-002	EM2208272-005	EM2208272-006	EM2208272-007
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums								
Sum of PFAS	----	0.10	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	100	92.3	106	103	106
13C8-PFOA	----	0.02	%	93.3	103	91.7	93.7	94.3



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_OB_20220505_16_02_SS_Primary_ALS	SX_IB_20220505_20_00_SS_Triplicate_ALS	SX_IB_20220505_20_05_SS_Primary_ALS	SX_OB_20220506_00_01_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS
Sampling date / time				05-May-2022 16:02	05-May-2022 20:00	05-May-2022 20:05	06-May-2022 00:01	06-May-2022 00:10
Compound	CAS Number	LOR	Unit	EM2208272-008	EM2208272-009	EM2208272-010	EM2208272-011	EM2208272-012
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
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_OB_20220505_16_02_SS_Primary_ALS	SX_IB_20220505_20_00_SS_Triplicate_ALS	SX_IB_20220505_20_05_SS_Primary_ALS	SX_OB_20220506_00_01_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS
Sampling date / time				05-May-2022 16:02	05-May-2022 20:00	05-May-2022 20:05	06-May-2022 00:01	06-May-2022 00:10
Compound	CAS Number	LOR	Unit	EM2208272-008	EM2208272-009	EM2208272-010	EM2208272-011	EM2208272-012
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums								
Sum of PFAS	----	0.10	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	117	106	99.1	103	109
13C8-PFOA	----	0.02	%	88.9	93.8	98.3	93.2	90.0



Analytical Results

Sub-Matrix: ASLP LEACHATE (Matrix: WATER)		Sample ID		SX_IB_20220506_04_09_SS_Primary_ALS	----	----	----	----
Sampling date / time				06-May-2022 04:09	----	----	----	----
Compound	CAS Number	LOR	Unit	EM2208272-013	-----	-----	-----	-----
				Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	----	----	----	----



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

SX_IB_20220506_04_09_SS_Primary_ALS

				Sampling date / time				
Compound	CAS Number	LOR	Unit					
				06-May-2022 04:09	----	----	----	----
				EM2208272-013	-----	-----	-----	-----
				Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	----	----	----	----
EP231P: PFAS Sums								
Sum of PFAS	----	0.10	µg/L	<0.10	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	----	----	----	----
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	----	----	----	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	105	----	----	----	----
13C8-PFOA	----	0.02	%	96.3	----	----	----	----



Analytical Results

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

Sample ID

				SX_OB_20220505_08_06_SS_Primary_ALS	SX_OB_20220505_08_08_SS_Duplicate_ALS	SX_IB_20220505_12_17_SS_Primary_ALS	SX_IB_20220505_15_50_SS_Primary_ALS	SX_IB_20220505_15_57_SS_Triplicate_ALS
Sampling date / time				05-May-2022 08:06	05-May-2022 08:08	05-May-2022 12:17	05-May-2022 15:50	05-May-2022 15:57
Compound	CAS Number	LOR	Unit	EM2208272-014	EM2208272-015	EM2208272-016	EM2208272-017	EM2208272-018
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Results

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

Sample ID

				SX_OB_20220505_08_06_SS_Primary_ALS	SX_OB_20220505_08_08_SS_Duplicate_ALS	SX_IB_20220505_12_17_SS_Primary_ALS	SX_IB_20220505_15_50_SS_Primary_ALS	SX_IB_20220505_15_57_SS_Triplicate_ALS
Sampling date / time				05-May-2022 08:06	05-May-2022 08:08	05-May-2022 12:17	05-May-2022 15:50	05-May-2022 15:57
Compound	CAS Number	LOR	Unit	EM2208272-014	EM2208272-015	EM2208272-016	EM2208272-017	EM2208272-018
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums								
Sum of PFAS	----	0.10	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	92.4	85.0	103	71.9	96.5
13C8-PFOA	----	0.02	%	89.0	86.6	100	101	110



Analytical Results

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

Sample ID

				SX_OB_20220505_16_02_SS_Primary_ALS	SX_IB_20220505_20_00_SS_Triplicate_ALS	SX_IB_20220505_20_05_SS_Primary_ALS	SX_OB_20220506_00_01_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS
Sampling date / time				05-May-2022 16:02	05-May-2022 20:00	05-May-2022 20:05	06-May-2022 00:01	06-May-2022 00:10
Compound	CAS Number	LOR	Unit	EM2208272-019	EM2208272-020	EM2208272-021	EM2208272-022	EM2208272-023
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
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_OB_20220505_16_02_SS_Primary_ALS	SX_IB_20220505_20_00_SS_Triplicate_ALS	SX_IB_20220505_20_05_SS_Primary_ALS	SX_OB_20220506_00_01_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS
Sampling date / time				05-May-2022 16:02	05-May-2022 20:00	05-May-2022 20:05	06-May-2022 00:01	06-May-2022 00:10
Compound	CAS Number	LOR	Unit	EM2208272-019	EM2208272-020	EM2208272-021	EM2208272-022	EM2208272-023
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums								
Sum of PFAS	----	0.10	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	98.0	109	81.8	89.0	88.9
13C8-PFOA	----	0.02	%	105	102	105	93.3	94.8



Analytical Results

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

Sample ID

SX_IB_20220506_04_09_SS_Primary_ALS

Sampling date / time			06-May-2022 04:09					
Compound	CAS Number	LOR	Unit	EM2208272-024	-----	-----	-----	-----
				Result	---	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	---	---	---	---
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	---	---	---	---
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	---	---	---	---
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	---	---	---	---
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	---	---	---	---
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	---	---	---	---
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	---	---	---	---
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	---	---	---	---
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	---	---	---	---
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	---	---	---	---
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	---	---	---	---
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	---	---	---	---
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	---	---	---	---
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	---	---	---	---
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	---	---	---	---
Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.02	µg/L	<0.02	---	---	---	---
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	---	---	---	---
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	---	---	---	---
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	---	---	---	---
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	---	---	---	---



Analytical Results

Sub-Matrix: DI WATER LEACHATE (Matrix: WATER)		Sample ID			SX_IB_20220506_04_09_SS_Primary_ALS	----	----	----	----
		Sampling date / time			06-May-2022 04:09	----	----	----	----
Compound	CAS Number	LOR	Unit	EM2208272-024	-----	-----	-----	-----	-----
				Result	----	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	----	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	----	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<0.05	----	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	----	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	----	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	----	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	----	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	----	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.10	µg/L	<0.10	----	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	----	----	----	----	----
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	----	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%	84.9	----	----	----	----	----
13C8-PFOA	----	0.02	%	90.9	----	----	----	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220505_08_06_SS_Primary_ALS	SX_OB_20220505_08_08_SS_Duplicate_ALS	SX_IB_20220505_12_17_SS_Primary_ALS	SX_IB_20220505_15_50_SS_Primary_ALS	SX_IB_20220505_15_57_SS_Triplicate_ALS
Sampling date / time				05-May-2022 08:06	05-May-2022 08:08	05-May-2022 12:17	05-May-2022 15:50	05-May-2022 15:57
Compound	CAS Number	LOR	Unit	EM2208272-001	EM2208272-002	EM2208272-005	EM2208272-006	EM2208272-007
				Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl2)	----	0.1	pH Unit	7.9	7.7	7.8	8.0	7.6
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	34.9	33.9	29.4	27.8	29.8
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	20	22	20	19	39
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	5	mg/kg	119	124	78	61	111
Copper	7440-50-8	5	mg/kg	73	64	50	34	50
Lead	7439-92-1	5	mg/kg	<5	<5	<5	7	<5
Molybdenum	7439-98-7	5	mg/kg	<5	<5	<5	<5	<5
Nickel	7440-02-0	5	mg/kg	200	191	164	101	160
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	114	108	99	57	84
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	1.0	mg/kg	<1.0	<1.0	<1.0	1.6	1.6
EK026SF: Total CN by Segmented Flow Analyser								
Total Cyanide	57-12-5	5	mg/kg	<5	<5	<5	<5	<5
EK040T: Fluoride Total								
Fluoride	16984-48-8	100	mg/kg	140	130	130	140	150
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Initial pH	----	0.1	pH Unit	9.7	9.4	9.5	9.5	9.3
After HCl pH	----	0.1	pH Unit	1.4	1.4	1.4	1.4	1.4
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
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP074A: Monocyclic Aromatic Hydrocarbons								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220505_08_06_SS_Primary_ALS	SX_OB_20220505_08_08_SS_Duplicate_ALS	SX_IB_20220505_12_17_SS_Primary_ALS	SX_IB_20220505_15_50_SS_Primary_ALS	SX_IB_20220505_15_57_SS_Triplicate_ALS
Sampling date / time				05-May-2022 08:06	05-May-2022 08:08	05-May-2022 12:17	05-May-2022 15:50	05-May-2022 15:57
Compound	CAS Number	LOR	Unit	EM2208272-001	EM2208272-002	EM2208272-005	EM2208272-006	EM2208272-007
				Result	Result	Result	Result	Result
EP074A: Monocyclic Aromatic Hydrocarbons - Continued								
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of monocyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074H: Naphthalene								
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP074I: Volatile Halogenated Compounds								
Vinyl chloride	75-01-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethene	75-35-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Methylene chloride	75-09-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	156-60-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
cis-1,2-Dichloroethene	156-59-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	71-55-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	56-23-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	107-06-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	79-00-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1,2-Tetrachloroethane	630-20-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	79-34-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobutadiene	87-68-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Chlorobenzene	108-90-7	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	106-46-7	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	95-50-1	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,2,4-Trichlorobenzene	120-82-1	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Sum of volatile chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Sum of other chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP075A: Phenolic Compounds (Halogenated)								



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220505_08_06_SS_Primary_ALS	SX_OB_20220505_08_08_SS_Duplicate_ALS	SX_IB_20220505_12_17_SS_Primary_ALS	SX_IB_20220505_15_50_SS_Primary_ALS	SX_IB_20220505_15_57_SS_Triplicate_ALS
Sampling date / time				05-May-2022 08:06	05-May-2022 08:08	05-May-2022 12:17	05-May-2022 15:50	05-May-2022 15:57
Compound	CAS Number	LOR	Unit	EM2208272-001	EM2208272-002	EM2208272-005	EM2208272-006	EM2208272-007
				Result	Result	Result	Result	Result
EP075A: Phenolic Compounds (Halogenated) - Continued								
2-Chlorophenol	95-57-8	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
2,4-Dichlorophenol	120-83-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
2,6-Dichlorophenol	87-65-0	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
4-Chloro-3-methylphenol	59-50-7	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
2,4,5-Trichlorophenol	95-95-4	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
2,4,6-Trichlorophenol	88-06-2	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03
2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4901-51-3/58-90-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Pentachlorophenol	87-86-5	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
^ Sum of Phenols (halogenated)	----	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
EP075A: Phenolic Compounds (Non-halogenated)								
Phenol	108-95-2	1	mg/kg	<1	<1	<1	<1	<1
2-Methylphenol	95-48-7	1	mg/kg	<1	<1	<1	<1	<1
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	<1	<1	<1
2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	<1	<1	<1
2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	<5	<5	<5
4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	<5	<5	<5
2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	<5	<5	<5
Dinoseb	88-85-7	20	mg/kg	<20	<20	<20	<20	<20
2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	20	mg/kg	<20	<20	<20	<20	<20
^ Sum of Phenols (non-halogenated)	----	20	mg/kg	<20	<20	<20	<20	<20
EP075B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220505_08_06_SS_Primary_ALS	SX_OB_20220505_08_08_SS_Duplicate_ALS	SX_IB_20220505_12_17_SS_Primary_ALS	SX_IB_20220505_15_50_SS_Primary_ALS	SX_IB_20220505_15_57_SS_Triplicate_ALS
Sampling date / time				05-May-2022 08:06	05-May-2022 08:08	05-May-2022 12:17	05-May-2022 15:50	05-May-2022 15:57
Compound	CAS Number	LOR	Unit	EM2208272-001	EM2208272-002	EM2208272-005	EM2208272-006	EM2208272-007
				Result	Result	Result	Result	Result
EP075B: Polynuclear Aromatic Hydrocarbons - Continued								
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	0.6	0.6	0.6	0.6
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	1.2	1.2	1.2
EP075I: Organochlorine Pesticides								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03
trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03
Endosulfan 1	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan 2	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of organochlorine pesticides	----	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220505_08_06_SS_Primary_ALS	SX_OB_20220505_08_08_SS_Duplicate_ALS	SX_IB_20220505_12_17_SS_Primary_ALS	SX_IB_20220505_15_50_SS_Primary_ALS	SX_IB_20220505_15_57_SS_Triplicate_ALS
Sampling date / time				05-May-2022 08:06	05-May-2022 08:08	05-May-2022 12:17	05-May-2022 15:50	05-May-2022 15:57
Compound	CAS Number	LOR	Unit	EM2208272-001	EM2208272-002	EM2208272-005	EM2208272-006	EM2208272-007
				Result	Result	Result	Result	Result
EP075I: Organochlorine Pesticides - Continued								
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.30	mg/kg	<0.30	<0.30	<0.30	<0.30	<0.30
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 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
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	20	mg/kg	<20	<20	<20	<20	<20
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C6 - C10 Fraction	C6_C10	20	mg/kg	<20	<20	<20	<20	<20
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
>C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	<50	<50
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	mg/kg	<20	<20	<20	<20	<20
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorodecane sulfonic acid (PFDS)	335-77-3	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220505_08_06_SS_Primary_ALS	SX_OB_20220505_08_08_SS_Duplicate_ALS	SX_IB_20220505_12_17_SS_Primary_ALS	SX_IB_20220505_15_50_SS_Primary_ALS	SX_IB_20220505_15_57_SS_Triplicate_ALS
Sampling date / time				05-May-2022 08:06	05-May-2022 08:08	05-May-2022 12:17	05-May-2022 15:50	05-May-2022 15:57
Compound	CAS Number	LOR	Unit	EM2208272-001	EM2208272-002	EM2208272-005	EM2208272-006	EM2208272-007
				Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	5	µg/kg	<5	<5	<5	<5	<5
Perfluoropentanoic acid (PFPeA)	2706-90-3	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorohexanoic acid (PFHxA)	307-24-4	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluoroheptanoic acid (PFHpA)	375-85-9	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorooctanoic acid (PFOA)	335-67-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorononanoic acid (PFNA)	375-95-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorodecanoic acid (PFDA)	335-76-2	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorododecanoic acid (PFDoDA)	307-55-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	10.0	µg/kg	<10.0	<10.0	<10.0	<10.0	<10.0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	10.0	µg/kg	<10.0	<10.0	<10.0	<10.0	<10.0
EP231D: (n:2) Fluorotelomer Sulfonic Acids								



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220505_08_06_SS_Primary_ALS	SX_OB_20220505_08_08_SS_Duplicate_ALS	SX_IB_20220505_12_17_SS_Primary_ALS	SX_IB_20220505_15_50_SS_Primary_ALS	SX_IB_20220505_15_57_SS_Triplicate_ALS
Sampling date / time				05-May-2022 08:06	05-May-2022 08:08	05-May-2022 12:17	05-May-2022 15:50	05-May-2022 15:57
Compound	CAS Number	LOR	Unit	EM2208272-001	EM2208272-002	EM2208272-005	EM2208272-006	EM2208272-007
				Result	Result	Result	Result	Result
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	10.0	µg/kg	<10.0	<10.0	<10.0	<10.0	<10.0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP231P: PFAS Sums								
Sum of PFAS	----	50.0	µg/kg	<50.0	<50.0	<50.0	<50.0	<50.0
Sum of PFHxS and PFOS	355-46-4/1763-23-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Sum of PFAS (WA DER List)	----	10.0	µg/kg	<10.0	<10.0	<10.0	<10.0	<10.0
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	101	100	85.6	102	102
EP074S: VOC Surrogates (Ultra-Trace)								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	94.3	82.0	96.9	83.9	88.3
Toluene-D8	2037-26-5	0.1	%	93.0	80.6	94.6	79.3	82.6
4-Bromofluorobenzene	460-00-4	0.1	%	108	92.1	106	90.0	99.1
EP075S: Acid Extractable Surrogates (Waste Classification)								
Phenol-d6	13127-88-3	0.025	%	92.5	85.9	84.4	88.4	89.8
2-Chlorophenol-D4	93951-73-6	0.025	%	88.5	82.5	81.4	85.2	87.1
2,4,6-Tribromophenol	118-79-6	0.025	%	93.3	88.1	84.9	88.7	90.9
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)								
Nitrobenzene-D5	4165-60-0	0.025	%	93.3	87.1	85.1	88.8	89.8
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	87.5	82.3	80.9	84.6	86.5
2-Fluorobiphenyl	321-60-8	0.025	%	88.2	82.9	81.5	85.1	86.5
Anthracene-d10	1719-06-8	0.025	%	94.6	90.0	88.0	91.7	93.5
4-Terphenyl-d14	1718-51-0	0.025	%	98.2	93.0	90.6	95.1	95.0
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.0002	%	131	125	120	110	111
13C8-PFOA	----	0.0002	%	104	95.2	106	95.0	100



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_OB_20220505_16_02_SS_Primary_ALS	SX_IB_20220505_20_00_SS_Triplicate_ALS	SX_IB_20220505_20_05_SS_Primary_ALS	SX_OB_20220506_00_01_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS
Sampling date / time				05-May-2022 16:02	05-May-2022 20:00	05-May-2022 20:05	06-May-2022 00:01	06-May-2022 00:10	
Compound	CAS Number	LOR	Unit	EM2208272-008	EM2208272-009	EM2208272-010	EM2208272-011	EM2208272-012	
				Result	Result	Result	Result	Result	
EA001: pH in soil using 0.01M CaCl extract									
pH (CaCl ₂)	----	0.1	pH Unit	7.5	7.6	7.6	7.6	7.6	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%	32.1	28.4	30.3	29.7	29.9	
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg	20	30	35	10	26	
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1	
Chromium	7440-47-3	5	mg/kg	120	94	98	108	92	
Copper	7440-50-8	5	mg/kg	70	55	53	58	54	
Lead	7439-92-1	5	mg/kg	<5	<5	<5	<5	<5	
Molybdenum	7439-98-7	5	mg/kg	<5	<5	<5	<5	<5	
Nickel	7440-02-0	5	mg/kg	217	164	159	149	153	
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	119	97	100	86	86	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	
EK026SF: Total CN by Segmented Flow Analyser									
Total Cyanide	57-12-5	5	mg/kg	<5	<5	<5	<5	<5	
EK040T: Fluoride Total									
Fluoride	16984-48-8	100	mg/kg	110	140	<100	110	160	
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)									
Initial pH	----	0.1	pH Unit	8.9	9.2	9.1	9.2	9.3	
After HCl pH	----	0.1	pH Unit	1.4	1.4	1.4	1.4	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	5.0	
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	
EP074A: Monocyclic Aromatic Hydrocarbons									
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
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_OB_20220505_16_02_SS_Primary_ALS	SX_IB_20220505_20_00_SS_Triplicate_ALS	SX_IB_20220505_20_05_SS_Primary_ALS	SX_OB_20220506_00_01_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS
Sampling date / time				05-May-2022 16:02	05-May-2022 20:00	05-May-2022 20:05	06-May-2022 00:01	06-May-2022 00:10
Compound	CAS Number	LOR	Unit	EM2208272-008	EM2208272-009	EM2208272-010	EM2208272-011	EM2208272-012
				Result	Result	Result	Result	Result
EP074A: Monocyclic Aromatic Hydrocarbons - Continued								
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
[^] Sum of monocyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
[^] Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074H: Naphthalene								
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP074I: Volatile Halogenated Compounds								
Vinyl chloride	75-01-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethene	75-35-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Methylene chloride	75-09-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	156-60-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
cis-1,2-Dichloroethene	156-59-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	71-55-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	56-23-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	107-06-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	79-00-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1,2-Tetrachloroethane	630-20-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1,2,2-Tetrachloroethane	79-34-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobutadiene	87-68-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Chlorobenzene	108-90-7	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	106-46-7	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	95-50-1	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,2,4-Trichlorobenzene	120-82-1	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
[^] Sum of volatile chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
[^] Sum of other chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP075A: Phenolic Compounds (Halogenated)								
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_OB_20220505_16_02_SS_Primary_ALS	SX_IB_20220505_20_00_SS_Triplicate_ALS	SX_IB_20220505_20_05_SS_Primary_ALS	SX_OB_20220506_00_01_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS
Sampling date / time				05-May-2022 16:02	05-May-2022 20:00	05-May-2022 20:05	06-May-2022 00:01	06-May-2022 00:10
Compound	CAS Number	LOR	Unit	EM2208272-008	EM2208272-009	EM2208272-010	EM2208272-011	EM2208272-012
				Result	Result	Result	Result	Result
EP075A: Phenolic Compounds (Halogenated) - Continued								
2,6-Dichlorophenol	87-65-0	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
4-Chloro-3-methylphenol	59-50-7	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
2,4,5-Trichlorophenol	95-95-4	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
2,4,6-Trichlorophenol	88-06-2	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03
2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4901-51-3/58-90-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Pentachlorophenol	87-86-5	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
^ Sum of Phenols (halogenated)	----	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
EP075A: Phenolic Compounds (Non-halogenated)								
Phenol	108-95-2	1	mg/kg	<1	<1	<1	<1	<1
2-Methylphenol	95-48-7	1	mg/kg	<1	<1	<1	<1	<1
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	<1	<1	<1
2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	<1	<1	<1
2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	<5	<5	<5
4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	<5	<5	<5
2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	<5	<5	<5
Dinoseb	88-85-7	20	mg/kg	<20	<20	<20	<20	<20
2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	20	mg/kg	<20	<20	<20	<20	<20
^ Sum of Phenols (non-halogenated)	----	20	mg/kg	<20	<20	<20	<20	<20
EP075B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
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_OB_20220505_16_02_SS_Primary_ALS	SX_IB_20220505_20_00_SS_Triplicate_ALS	SX_IB_20220505_20_05_SS_Primary_ALS	SX_OB_20220506_00_01_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS
Sampling date / time				05-May-2022 16:02	05-May-2022 20:00	05-May-2022 20:05	06-May-2022 00:01	06-May-2022 00:10
Compound	CAS Number	LOR	Unit	EM2208272-008	EM2208272-009	EM2208272-010	EM2208272-011	EM2208272-012
				Result	Result	Result	Result	Result
EP075B: Polynuclear Aromatic Hydrocarbons - Continued								
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	0.6	0.6	0.6	0.6
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	1.2	1.2	1.2
EP075I: Organochlorine Pesticides								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03
trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03
Endosulfan 1	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan 2	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4'-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of organochlorine pesticides	----	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
^ 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_OB_20220505_16_02_SS_Primary_ALS	SX_IB_20220505_20_00_SS_Triplicate_ALS	SX_IB_20220505_20_05_SS_Primary_ALS	SX_OB_20220506_00_01_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS
Sampling date / time				05-May-2022 16:02	05-May-2022 20:00	05-May-2022 20:05	06-May-2022 00:01	06-May-2022 00:10	
Compound	CAS Number	LOR	Unit	EM2208272-008	EM2208272-009	EM2208272-010	EM2208272-011	EM2208272-012	
				Result	Result	Result	Result	Result	
EP075I: Organochlorine Pesticides - Continued									
^ Sum of other organochlorine pesticides				----	0.03	mg/kg	<0.03	<0.03	<0.03
EP080/071: Total Petroleum Hydrocarbons									
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
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
>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
EP231A: Perfluoroalkyl Sulfonic Acids									
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
EP231B: Perfluoroalkyl Carboxylic Acids									
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_OB_20220505_16_02_SS_Primary_ALS	SX_IB_20220505_20_00_SS_Triplicate_ALS	SX_IB_20220505_20_05_SS_Primary_ALS	SX_OB_20220506_00_01_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS
Sampling date / time				05-May-2022 16:02	05-May-2022 20:00	05-May-2022 20:05	06-May-2022 00:01	06-May-2022 00:10	
Compound	CAS Number	LOR	Unit	EM2208272-008	EM2208272-009	EM2208272-010	EM2208272-011	EM2208272-012	
				Result	Result	Result	Result	Result	
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorooctanoic acid (PFOA)	335-67-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
Perfluorononanoic acid (PFNA)	375-95-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
Perfluorodecanoic acid (PFDA)	335-76-2	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
Perfluorododecanoic acid (PFDoDA)	307-55-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	10.0	µg/kg	<10.0	<10.0	<10.0	<10.0	<10.0	
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	10.0	µg/kg	<10.0	<10.0	<10.0	<10.0	<10.0	
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
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_OB_20220505_16_02_SS_Primary_ALS	SX_IB_20220505_20_00_SS_Triplicate_ALS	SX_IB_20220505_20_05_SS_Primary_ALS	SX_OB_20220506_00_01_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS
Sampling date / time				05-May-2022 16:02	05-May-2022 20:00	05-May-2022 20:05	06-May-2022 00:01	06-May-2022 00:10	
Compound	CAS Number	LOR	Unit	EM2208272-008	EM2208272-009	EM2208272-010	EM2208272-011	EM2208272-012	
				Result	Result	Result	Result	Result	
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
EP231P: PFAS Sums									
Sum of PFAS	----	50.0	µg/kg	<50.0	<50.0	<50.0	<50.0	<50.0	
Sum of PFHxS and PFOS	355-46-4/1763-23-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
Sum of PFAS (WA DER List)	----	10.0	µg/kg	<10.0	<10.0	<10.0	<10.0	<10.0	
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%	108	104	106	106	98.4	
EP074S: VOC Surrogates (Ultra-Trace)									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	95.5	91.3	89.6	78.1	89.2	
Toluene-D8	2037-26-5	0.1	%	90.6	91.0	85.4	76.4	87.1	
4-Bromofluorobenzene	460-00-4	0.1	%	103	103	98.5	86.3	99.1	
EP075S: Acid Extractable Surrogates (Waste Classification)									
Phenol-d6	13127-88-3	0.025	%	92.1	92.4	93.1	88.5	83.1	
2-Chlorophenol-D4	93951-73-6	0.025	%	89.1	89.0	89.9	86.2	80.4	
2,4,6-Tribromophenol	118-79-6	0.025	%	93.9	94.6	93.9	91.4	87.5	
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)									
Nitrobenzene-D5	4165-60-0	0.025	%	92.5	92.8	93.5	88.5	82.9	
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	88.7	88.4	89.2	85.7	79.1	
2-Fluorobiphenyl	321-60-8	0.025	%	89.8	89.3	89.2	86.1	81.7	
Anthracene-d10	1719-06-8	0.025	%	96.0	96.6	96.7	93.4	88.6	
4-Terphenyl-d14	1718-51-0	0.025	%	99.5	98.4	99.9	96.8	90.1	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%	121	125	116	113	109	
13C8-PFOA	----	0.0002	%	98.8	102	100	97.0	93.0	



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220506_04_09_SS_Primary_ALS	SX_OB_20220505_08_06_SS_Primary_ALS	SX_OB_20220505_08_08_SS_Duplicate_ALS	SX_IB_20220505_12_17_SS_Primary_ALS	SX_IB_20220505_15_50_SS_Primary_ALS
Sampling date / time				06-May-2022 04:09	05-May-2022 08:06	05-May-2022 08:08	05-May-2022 12:17	05-May-2022 15:50
Compound	CAS Number	LOR	Unit	EM2208272-013	EM2208272-014	EM2208272-015	EM2208272-016	EM2208272-017
				Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl ₂)	----	0.1	pH Unit	7.6	----	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	27.8	----	----	----	----
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	35	----	----	----	----
Cadmium	7440-43-9	1	mg/kg	<1	----	----	----	----
Chromium	7440-47-3	5	mg/kg	102	----	----	----	----
Copper	7440-50-8	5	mg/kg	52	----	----	----	----
Lead	7439-92-1	5	mg/kg	<5	----	----	----	----
Molybdenum	7439-98-7	5	mg/kg	<5	----	----	----	----
Nickel	7440-02-0	5	mg/kg	145	----	----	----	----
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	80	----	----	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	----	----	----	----
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	1.0	mg/kg	2.0	----	----	----	----
EK026SF: Total CN by Segmented Flow Analyser								
Total Cyanide	57-12-5	5	mg/kg	<5	----	----	----	----
EK040T: Fluoride Total								
Fluoride	16984-48-8	100	mg/kg	140	----	----	----	----
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Initial pH	----	0.1	pH Unit	9.3	----	----	----	----
After HCl pH	----	0.1	pH Unit	1.3	----	----	----	----
Extraction Fluid pH	----	0.1	pH Unit	5.0	----	----	----	----
Final pH	----	0.1	pH Unit	5.1	----	----	----	----
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	----	9.7	9.5	9.5	9.6
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	----	----	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220506_04_09_SS_Primary_ALS	SX_OB_20220505_08_06_SS_Primary_ALS	SX_OB_20220505_08_08_SS_Duplicate_ALS	SX_IB_20220505_12_17_SS_Primary_ALS	SX_IB_20220505_15_50_SS_Primary_ALS
Sampling date / time				06-May-2022 04:09	05-May-2022 08:06	05-May-2022 08:08	05-May-2022 12:17	05-May-2022 15:50
Compound	CAS Number	LOR	Unit	EM2208272-013	EM2208272-014	EM2208272-015	EM2208272-016	EM2208272-017
				Result	Result	Result	Result	Result
EP074A: Monocyclic Aromatic Hydrocarbons								
Benzene	71-43-2	0.2	mg/kg	<0.2	----	----	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	----	----	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	----	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	----	----	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	----	----	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	----	----	----	----
^ Sum of monocyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	----	----	----	----
^ Total Xylenes	----	0.5	mg/kg	<0.5	----	----	----	----
EP074H: Naphthalene								
Naphthalene	91-20-3	1	mg/kg	<1	----	----	----	----
EP074I: Volatile Halogenated Compounds								
Vinyl chloride	75-01-4	0.50	mg/kg	<0.50	----	----	----	----
1,1-Dichloroethene	75-35-4	0.50	mg/kg	<0.50	----	----	----	----
Methylene chloride	75-09-2	0.5	mg/kg	<0.5	----	----	----	----
trans-1,2-Dichloroethene	156-60-5	0.50	mg/kg	<0.50	----	----	----	----
cis-1,2-Dichloroethene	156-59-2	0.50	mg/kg	<0.50	----	----	----	----
Chloroform	67-66-3	0.50	mg/kg	<0.50	----	----	----	----
1,1,1-Trichloroethane	71-55-6	0.50	mg/kg	<0.50	----	----	----	----
Carbon Tetrachloride	56-23-5	0.50	mg/kg	<0.50	----	----	----	----
1,2-Dichloroethane	107-06-2	0.50	mg/kg	<0.50	----	----	----	----
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	----	----	----	----
1,1,2-Trichloroethane	79-00-5	0.50	mg/kg	<0.50	----	----	----	----
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	----	----	----	----
1,1,1,2-Tetrachloroethane	630-20-6	0.50	mg/kg	<0.50	----	----	----	----
1,1,2,2-Tetrachloroethane	79-34-5	0.50	mg/kg	<0.50	----	----	----	----
Hexachlorobutadiene	87-68-3	0.50	mg/kg	<0.50	----	----	----	----
Chlorobenzene	108-90-7	0.50	mg/kg	<0.50	----	----	----	----
1,4-Dichlorobenzene	106-46-7	0.50	mg/kg	<0.50	----	----	----	----
1,2-Dichlorobenzene	95-50-1	0.50	mg/kg	<0.50	----	----	----	----
1,2,4-Trichlorobenzene	120-82-1	0.50	mg/kg	<0.50	----	----	----	----
^ Sum of volatile chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	----	----	----	----
^ Sum of other chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	----	----	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220506_04_09_SS_Primary_ALS	SX_OB_20220505_08_06_SS_Primary_ALS	SX_OB_20220505_08_08_SS_Duplicate_ALS	SX_IB_20220505_12_17_SS_Primary_ALS	SX_IB_20220505_15_50_SS_Primary_ALS
Sampling date / time				06-May-2022 04:09	05-May-2022 08:06	05-May-2022 08:08	05-May-2022 12:17	05-May-2022 15:50
Compound	CAS Number	LOR	Unit	EM2208272-013	EM2208272-014	EM2208272-015	EM2208272-016	EM2208272-017
				Result	Result	Result	Result	Result
EP075A: Phenolic Compounds (Halogenated)								
2-Chlorophenol	95-57-8	0.50	mg/kg	<0.50	----	----	----	----
2,4-Dichlorophenol	120-83-2	0.50	mg/kg	<0.50	----	----	----	----
2,6-Dichlorophenol	87-65-0	0.50	mg/kg	<0.50	----	----	----	----
4-Chloro-3-methylphenol	59-50-7	1.00	mg/kg	<1.00	----	----	----	----
2,4,5-Trichlorophenol	95-95-4	1.00	mg/kg	<1.00	----	----	----	----
2,4,6-Trichlorophenol	88-06-2	1.00	mg/kg	<1.00	----	----	----	----
2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	----	----	----	----
2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4901-51-3/58-90-2	0.05	mg/kg	<0.05	----	----	----	----
Pentachlorophenol	87-86-5	1.0	mg/kg	<1.0	----	----	----	----
^ Sum of Phenols (halogenated)	----	1.00	mg/kg	<1.00	----	----	----	----
EP075A: Phenolic Compounds (Non-halogenated)								
Phenol	108-95-2	1	mg/kg	<1	----	----	----	----
2-Methylphenol	95-48-7	1	mg/kg	<1	----	----	----	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	----	----	----	----
2-Nitrophenol	88-75-5	1	mg/kg	<1	----	----	----	----
2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	----	----	----	----
2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	----	----	----	----
4-Nitrophenol	100-02-7	5	mg/kg	<5	----	----	----	----
2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	----	----	----	----
Dinoseb	88-85-7	20	mg/kg	<20	----	----	----	----
2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	20	mg/kg	<20	----	----	----	----
^ Sum of Phenols (non-halogenated)	----	20	mg/kg	<20	----	----	----	----
EP075B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	----	----	----	----
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	----	----	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	----	----	----	----
Fluorene	86-73-7	0.5	mg/kg	<0.5	----	----	----	----
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	----	----	----	----
Anthracene	120-12-7	0.5	mg/kg	<0.5	----	----	----	----
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	----	----	----	----
Pyrene	129-00-0	0.5	mg/kg	<0.5	----	----	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	----	----	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220506_04_09_SS_Primary_ALS	SX_OB_20220505_08_06_SS_Primary_ALS	SX_OB_20220505_08_08_SS_Duplicate_ALS	SX_IB_20220505_12_17_SS_Primary_ALS	SX_IB_20220505_15_50_SS_Primary_ALS
Sampling date / time				06-May-2022 04:09	05-May-2022 08:06	05-May-2022 08:08	05-May-2022 12:17	05-May-2022 15:50
Compound	CAS Number	LOR	Unit	EM2208272-013	EM2208272-014	EM2208272-015	EM2208272-016	EM2208272-017
				Result	Result	Result	Result	Result
EP075B: Polynuclear Aromatic Hydrocarbons - Continued								
Chrysene	218-01-9	0.5	mg/kg	<0.5	----	----	----	----
Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	----	----	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	----	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	----	----	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	----	----	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	----	----	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	----	----	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	----	----	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	----	----	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	----	----	----	----
EP075I: Organochlorine Pesticides								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	----	----	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	----	----	----	----
beta-BHC	319-85-7	0.05	mg/kg	<0.05	----	----	----	----
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	----	----	----	----
delta-BHC	319-86-8	0.05	mg/kg	<0.05	----	----	----	----
Heptachlor	76-44-8	0.05	mg/kg	<0.05	----	----	----	----
Aldrin	309-00-2	0.05	mg/kg	<0.05	----	----	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	----	----	----	----
cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	----	----	----	----
trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	----	----	----	----
Endosulfan 1	959-98-8	0.05	mg/kg	<0.05	----	----	----	----
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	----	----	----	----
Dieldrin	60-57-1	0.05	mg/kg	<0.05	----	----	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	----	----	----	----
Endrin	72-20-8	0.05	mg/kg	<0.05	----	----	----	----
Endosulfan 2	33213-65-9	0.05	mg/kg	<0.05	----	----	----	----
4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	----	----	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	----	----	----	----
4.4`-DDT	50-29-3	0.05	mg/kg	<0.05	----	----	----	----
Methoxychlor	72-43-5	0.05	mg/kg	<0.05	----	----	----	----
^ Sum of organochlorine pesticides	----	0.10	mg/kg	<0.10	----	----	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220506_04_09_SS_Primary_ALS	SX_OB_20220505_08_06_SS_Primary_ALS	SX_OB_20220505_08_08_SS_Duplicate_ALS	SX_IB_20220505_12_17_SS_Primary_ALS	SX_IB_20220505_15_50_SS_Primary_ALS
Sampling date / time				06-May-2022 04:09	05-May-2022 08:06	05-May-2022 08:08	05-May-2022 12:17	05-May-2022 15:50
Compound	CAS Number	LOR	Unit	EM2208272-013	EM2208272-014	EM2208272-015	EM2208272-016	EM2208272-017
				Result	Result	Result	Result	Result
EP075I: Organochlorine Pesticides - Continued								
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.30	mg/kg	<0.30	----	----	----	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 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	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	20	mg/kg	<20	----	----	----	----
C10 - C14 Fraction	----	50	mg/kg	<50	----	----	----	----
C6 - C10 Fraction	C6_C10	20	mg/kg	<20	----	----	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	----	----	----	----
C29 - C36 Fraction	----	100	mg/kg	<100	----	----	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
>C10 - C16 Fraction	----	50	mg/kg	<50	----	----	----	----
>C16 - C34 Fraction	----	100	mg/kg	<100	----	----	----	----
>C34 - C40 Fraction	----	100	mg/kg	<100	----	----	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	----	----	----	----
>C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	----	----	----	----
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	mg/kg	<20	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	5.0	µg/kg	<5.0	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	5.0	µg/kg	<5.0	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	5.0	µg/kg	<5.0	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	5.0	µg/kg	<5.0	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	5.0	µg/kg	<5.0	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	5.0	µg/kg	<5.0	----	----	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220506_04_09_SS_Primary_ALS	SX_OB_20220505_08_06_SS_Primary_ALS	SX_OB_20220505_08_08_SS_Duplicate_ALS	SX_IB_20220505_12_17_SS_Primary_ALS	SX_IB_20220505_15_50_SS_Primary_ALS
Sampling date / time				06-May-2022 04:09	05-May-2022 08:06	05-May-2022 08:08	05-May-2022 12:17	05-May-2022 15:50
Compound	CAS Number	LOR	Unit	EM2208272-013	EM2208272-014	EM2208272-015	EM2208272-016	EM2208272-017
				Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	5	µg/kg	<5	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	5.0	µg/kg	<5.0	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	5.0	µg/kg	<5.0	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	5.0	µg/kg	<5.0	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	5.0	µg/kg	<5.0	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	5.0	µg/kg	<5.0	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	5.0	µg/kg	<5.0	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	5.0	µg/kg	<5.0	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	5.0	µg/kg	<5.0	----	----	----	----
Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	5.0	µg/kg	<5.0	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	5.0	µg/kg	<5.0	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	5.0	µg/kg	<5.0	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	5.0	µg/kg	<5.0	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	5.0	µg/kg	<5.0	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	5.0	µg/kg	<5.0	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	5.0	µg/kg	<5.0	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	10.0	µg/kg	<10.0	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	10.0	µg/kg	<10.0	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids								



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220506_04_09_SS_Primary_ALS	SX_OB_20220505_08_06_SS_Primary_ALS	SX_OB_20220505_08_08_SS_Duplicate_ALS	SX_IB_20220505_12_17_SS_Primary_ALS	SX_IB_20220505_15_50_SS_Primary_ALS
Sampling date / time				06-May-2022 04:09	05-May-2022 08:06	05-May-2022 08:08	05-May-2022 12:17	05-May-2022 15:50
Compound	CAS Number	LOR	Unit	EM2208272-013	EM2208272-014	EM2208272-015	EM2208272-016	EM2208272-017
				Result	Result	Result	Result	Result
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	5.0	µg/kg	<5.0	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	10.0	µg/kg	<10.0	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	5.0	µg/kg	<5.0	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	5.0	µg/kg	<5.0	----	----	----	----
EP231P: PFAS Sums								
Sum of PFAS	----	50.0	µg/kg	<50.0	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	5.0	µg/kg	<5.0	----	----	----	----
Sum of PFAS (WA DER List)	----	10.0	µg/kg	<10.0	----	----	----	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	107	----	----	----	----
EP074S: VOC Surrogates (Ultra-Trace)								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	98.2	----	----	----	----
Toluene-D8	2037-26-5	0.1	%	93.2	----	----	----	----
4-Bromofluorobenzene	460-00-4	0.1	%	103	----	----	----	----
EP075S: Acid Extractable Surrogates (Waste Classification)								
Phenol-d6	13127-88-3	0.025	%	89.7	----	----	----	----
2-Chlorophenol-D4	93951-73-6	0.025	%	87.0	----	----	----	----
2,4,6-Tribromophenol	118-79-6	0.025	%	92.0	----	----	----	----
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)								
Nitrobenzene-D5	4165-60-0	0.025	%	90.1	----	----	----	----
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	86.5	----	----	----	----
2-Fluorobiphenyl	321-60-8	0.025	%	87.8	----	----	----	----
Anthracene-d10	1719-06-8	0.025	%	94.1	----	----	----	----
4-Terphenyl-d14	1718-51-0	0.025	%	96.7	----	----	----	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.0002	%	125	----	----	----	----
13C8-PFOA	----	0.0002	%	100	----	----	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220505_15_57_SS_Triplicate_ALS	SX_OB_20220505_16_02_SS_Primary_ALS	SX_IB_20220505_20_00_SS_Triplicate_ALS	SX_IB_20220505_20_05_SS_Primary_ALS	SX_OB_20220506_00_01_SS_Primary_ALS
Sampling date / time				05-May-2022 15:57	05-May-2022 16:02	05-May-2022 20:00	05-May-2022 20:05	06-May-2022 00:01
Compound	CAS Number	LOR	Unit	EM2208272-018	EM2208272-019	EM2208272-020	EM2208272-021	EM2208272-022
				Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	9.5	8.9	9.3	9.1	9.1



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_IB_20220506_00_ 10_SS_Primary_ALS	SX_IB_20220506_04_ 09_SS_Primary_ALS	----	----	----
Sampling date / time				06-May-2022 00:10	06-May-2022 04:09	----	----	----	
Compound	CAS Number	LOR	Unit	EM2208272-023	EM2208272-024	-----	-----	-----	
				Result	Result	---	---	---	
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)									
Final pH	----	0.1	pH Unit	9.0	9.3	----	----	----	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID		SX_OB_20220505_10 _31_SR_Rinsate_ALS	SX_OB_20220505_10 _33_SB_Blank_ALS	----	----	----
Sampling date / time			05-May-2022 10:31		05-May-2022 10:33		----	----	----
Compound	CAS Number	LOR	Unit	EM2208272-003	EM2208272-004	-----	-----	-----	
				Result	Result	---	---	---	
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	----	----	----	
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	----	----	----	
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	----	----	----	
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	----	----	----	
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	----	----	----	
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	----	----	----	
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	----	----	----	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	----	----	----	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	----	----	----	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	SX_OB_20220505_10 _31_SR_Rinsate_ALS	SX_OB_20220505_10 _33_SB_Blank_ALS	----	----	----
Sampling date / time				05-May-2022 10:31	05-May-2022 10:33	----	----	----	
Compound	CAS Number	LOR	Unit	EM2208272-003	EM2208272-004	-----	-----	-----	
				Result	Result	---	---	---	
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	----	----	----	
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	----	----	----	
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	----	----	----	
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	----	----	----	
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	----	----	----	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	----	----	----	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	----	----	----	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	----	----	----	
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	----	----	----	
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	----	----	----	
Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	----	----	----	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%	89.0	85.4	----	----	----	
13C8-PFOA	----	0.02	%	100	94.2	----	----	----	



Surrogate Control Limits

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

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

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

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

QUALITY CONTROL REPORT

Work Order	: EM2208272	Page	: 1 of 32
Client	: AGON ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: DAVID LAWSON	Contact	: Josh Alexander
Address	: D1.1 63-85 TURNER STREET PORT MELBOURNE 3207	Address	: 4 Westall Rd Springvale VIC Australia 3171
Telephone	: ----	Telephone	: +61-3-8549 9600
Project	: JC0927	Date Samples Received	: 06-May-2022
Order number	: ----	Date Analysis Commenced	: 06-May-2022
C-O-C number	: 20220506044503-ALS-21	Issue Date	: 12-May-2022
Sampler	: ES - EP Risk, LR - EP Risk		
Site	: 20220506044503-ALS-21		
Quote number	: EN/150/19 -WGTP -Bulk Sample Quote		
No. of samples received	: 24		
No. of samples analysed	: 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
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 (%)
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4325945)									
EM2208272-001	SX_OB_20220505_08_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	119	117	1.7	0% - 20%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<5	<5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	200	175	13.3	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	20	28	33.9	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	73	62	15.5	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	114	105	8.6	0% - 20%		
EM2208272-012	SX_IB_20220506_00_10_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	92	95	4.0	0% - 50%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<5	<5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	153	154	0.0	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	26	30	13.8	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	54	53	0.0	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	86	87	0.0	0% - 50%		



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 (%)
EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4328938)									
EM2208218-015	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	7.7	7.7	0.0	0% - 20%
EM2208254-006	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	7.4	7.4	0.0	0% - 20%
EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4328939)									
EM2208272-010	SX_IB_20220505_20_05_S S_Primary_ALS	EA001: pH (CaCl2)	----	0.1	pH Unit	7.6	7.6	0.0	0% - 20%
EM2208290-016	Anonymous	EA001: pH (CaCl2)	----	0.1	pH Unit	4.8	5.0	2.9	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4326850)									
EM2208272-001	SX_OB_20220505_08_06_ SS_Primary_ALS	EA055: Moisture Content	----	0.1	%	34.9	33.8	3.2	0% - 20%
EM2208272-013	SX_IB_20220506_04_09_S S_Primary_ALS	EA055: Moisture Content	----	0.1	%	27.8	28.5	2.5	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4325946)									
EM2208272-001	SX_OB_20220505_08_06_ SS_Primary_ALS	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2208272-012	SX_IB_20220506_00_10_S S_Primary_ALS	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 4326894)									
EM2208254-004	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EM2208272-007	SX_IB_20220505_15_57_S S_Triplicate_ALS	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	1.6	1.2	31.4	No Limit
EK026SF: Total CN by Segmented Flow Analyser (QC Lot: 4328986)									
EM2208230-001	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit
EM2208272-001	SX_OB_20220505_08_06_ SS_Primary_ALS	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<5	<5	0.0	No Limit
EK040T: Fluoride Total (QC Lot: 4328428)									
EM2208218-015	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	430	480	10.2	0% - 50%
EM2208254-012	Anonymous	EK040T: Fluoride	16984-48-8	40	mg/kg	240	210	11.9	No Limit
EK040T: Fluoride Total (QC Lot: 4328429)									
EM2208272-013	SX_IB_20220506_04_09_S S_Primary_ALS	EK040T: Fluoride	16984-48-8	40	mg/kg	140	170	21.4	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4325864)									
EM2208272-001	SX_OB_20220505_08_06_ SS_Primary_ALS	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2208272-013	SX_IB_20220506_04_09_S S_Primary_ALS	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 4324654)									
EM2208272-001	SX_OB_20220505_08_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



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 (%)
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 4324654) - continued									
EM2208272-001	SX_OB_20220505_08_06_ SS_Primary_ALS	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
EM2208272-013	SX_IB_20220506_04_09_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
EP074H: Naphthalene (QC Lot: 4324654)									
EM2208272-001	SX_OB_20220505_08_06_ SS_Primary_ALS	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EM2208272-013	SX_IB_20220506_04_09_S S_Primary_ALS	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EP074I: Volatile Halogenated Compounds (QC Lot: 4324654)									
EM2208272-001	SX_OB_20220505_08_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



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 (%)
EP074I: Volatile Halogenated Compounds (QC Lot: 4324654) - continued									
EM2208272-013	SX_IB_20220506_04_09_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: 1.1.2.2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1.4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1.2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
EP074-UT: 1.1.2-Trichloroethane	79-00-5	0.04	mg/kg	<0.50	<0.50	0.0	No Limit		
EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.5	<0.5	0.0	No Limit		
EP075A: Phenolic Compounds (Halogenated) (QC Lot: 4325866)									
EM2208272-001	SX_OB_20220505_08_06_ 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	4901-51-3/58-90-2	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
EM2208272-013	SX_IB_20220506_04_09_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		



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP075A: Phenolic Compounds (Halogenated) (QC Lot: 4325866) - continued									
EM2208272-013	SX_IB_20220506_04_09_S S_Primary_ALS	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
EP075A: Phenolic Compounds (Non-halogenated) (QC Lot: 4325866)									
EM2208272-001	SX_OB_20220505_08_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
EM2208272-013	SX_IB_20220506_04_09_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
EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4325866)	SX_OB_20220505_08_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



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 (%)
EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4325866) - continued									
EM2208272-001	SX_OB_20220505_08_06_ SS_Primary_ALS	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
EM2208272-013	SX_IB_20220506_04_09_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
		EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Indeno(1,2,3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075-EM: Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075-EM: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1.0	<1.0	0.0	No Limit		
EP075I: Organochlorine Pesticides (QC Lot: 4325866)									
EM2208272-001	SX_OB_20220505_08_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		



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 (%)
EP075I: Organochlorine Pesticides (QC Lot: 4325866) - continued									
EM2208272-001	SX_OB_20220505_08_06_ SS_Primary_ALS	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
EM2208272-013	SX_IB_20220506_04_09_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
		EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	<0.03	0.0	No Limit
		EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
		EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.05	<0.05	0.0	No Limit
EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.05	<0.05	0.0	No Limit		
EP075-EM: 4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit		
EP075-EM: 4.4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit		
EP075-EM: 4.4'-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit		
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4324654)									
EM2208272-001	SX_OB_20220505_08_06_ SS_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<20	<20	0.0	No Limit
EM2208272-013	SX_IB_20220506_04_09_S S_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<20	<20	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4325865)									
EM2208272-001	SX_OB_20220505_08_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
EM2208272-013	SX_IB_20220506_04_09_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



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 (%)
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4325865) - continued									
EM2208272-013	SX_IB_20220506_04_09_S S_Primary_ALS	EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
		EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4324654)									
EM2208272-001	SX_OB_20220505_08_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
EM2208272-013	SX_IB_20220506_04_09_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
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4325865)									
EM2208272-001	SX_OB_20220505_08_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
EM2208272-013	SX_IB_20220506_04_09_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
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4325428)									
EM2208040-004	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EM2208272-006	SX_IB_20220505_15_50_S S_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
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4325428)									
EM2208040-004	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit



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 (%)
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4325428) - continued									
EM2208040-004	Anonymous	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
EM2208272-006	SX_IB_20220505_15_50_S S_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
		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		
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4325428)									
EM2208040-004	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EM2208272-006	SX_IB_20220505_15_50_S S_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



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4325428) - continued									
EM2208272-006	SX_IB_20220505_15_50_S S_Primary_ALS	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
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4325428)									
EM2208040-004	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EM2208272-006	SX_IB_20220505_15_50_S S_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
EP231P: PFAS Sums (QC Lot: 4325428)									
EM2208040-004	Anonymous	EP231X: Sum of PFAS	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EM2208272-006	SX_IB_20220505_15_50_S S_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
Sub-Matrix: WATER									
Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4328365)									
EM2208272-014	SX_OB_20220505_08_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



Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4328365) - continued									
EM2208272-014	SX_OB_20220505_08_06_ SS_Primary_ALS	EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4329222)									
EM2208127-014	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EM2208127-023	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4329411)									
EM2208272-001	SX_OB_20220505_08_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
EM2208272-012	SX_IB_20220506_00_10_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
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4328365)									
EM2208272-014	SX_OB_20220505_08_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



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 (%)	
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4328365) - continued										
EM2208272-014	SX_OB_20220505_08_06_ 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	
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4329222)										
EM2208127-014	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	
EM2208127-023	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	
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4329411)	EM2208272-001	SX_OB_20220505_08_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



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 (%)
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4329411) - continued									
EM2208272-001	SX_OB_20220505_08_06_S SS_Primary_ALS	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
EM2208272-012	SX_IB_20220506_00_10_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 (PFTTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4328365)									
EM2208272-014	SX_OB_20220505_08_06_S 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
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4329222)									
EM2208127-014	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit



Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4329222) - continued									
EM2208127-014	Anonymous	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
EM2208127-023	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4329411)									
EM2208272-001	SX_OB_20220505_08_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
EM2208272-012	SX_IB_20220506_00_10_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



Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4329411) - continued									
EM2208272-012	SX_IB_20220506_00_10_S S_Primary_ALS	EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4328365)									
EM2208272-014	SX_OB_20220505_08_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
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4329222)									
EM2208127-014	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
EM2208127-023	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4329411)									
EM2208272-001	SX_OB_20220505_08_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



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 (%)
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4329411) - continued									
EM2208272-012	SX_IB_20220506_00_10_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
EP231P: PFAS Sums (QC Lot: 4328365)									
EM2208272-014	SX_OB_20220505_08_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
EP231P: PFAS Sums (QC Lot: 4329222)									
EM2208127-014	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
EM2208127-023	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4329411)									
EM2208272-001	SX_OB_20220505_08_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
EM2208272-012	SX_IB_20220506_00_10_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



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	
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4325945)									
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	88.2	70.0	130	
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	59.1	50.0	130	
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	94.9	70.0	130	
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	85.3	70.0	130	
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	86.6	70.0	130	
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	78.1	70.0	130	
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	89.0	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	75.9	70.0	130	
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.33 mg/kg	74.6	70.0	130	
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	124	70.0	130	
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel) (QCLot: 4326961)									
EN60-DIa-P: Final pH	----	0.1	pH Unit	7.1	----	----	----	----	
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel) (QCLot: 4327640)									
EN60-DIa-P: Final pH	----	0.1	pH Unit	7.1	----	----	----	----	
EA001: pH in soil using 0.01M CaCl extract (QCLot: 4328938)									
EA001: pH (CaCl ₂)	----	----	pH Unit	----	4 pH Unit	101	98.8	101	
					7 pH Unit	99.4	99.3	101	
EA001: pH in soil using 0.01M CaCl extract (QCLot: 4328939)									
EA001: pH (CaCl ₂)	----	----	pH Unit	----	4 pH Unit	100	98.8	101	
					7 pH Unit	99.4	99.3	101	
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4325946)									
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	85.9	70.0	130	
EG048G: Hexavalent Chromium (Alkaline Digest) (QCLot: 4326894)									
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	87.9	70.0	130	
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4328986)									
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	83.5	70.0	130	
EK040T: Fluoride Total (QCLot: 4328428)									
EK040T: Fluoride	16984-48-8	40	mg/kg	<40	400 mg/kg	82.5	75.2	110	
EK040T: Fluoride Total (QCLot: 4328429)									
EK040T: Fluoride	16984-48-8	40	mg/kg	<40	400 mg/kg	85.8	75.2	110	
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4325864)									
EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	98.2	67.4	136	



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	
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4324654)									
EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	2.1 mg/kg	94.9	69.2	116	
EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	2.1 mg/kg	93.1	67.7	116	
EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2.1 mg/kg	90.4	66.6	115	
EP074-UT: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	4.2 mg/kg	89.4	65.2	112	
EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	2.1 mg/kg	91.4	69.4	111	
EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2.1 mg/kg	90.9	68.4	110	
EP074H: Naphthalene (QCLot: 4324654)									
EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	0.6 mg/kg	89.8	72.3	114	
EP074I: Volatile Halogenated Compounds (QCLot: 4324654)									
EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.02	0.1 mg/kg	104	47.0	138	
EP074-UT: 1,1-Dichloroethene	75-35-4	0.01	mg/kg	<0.01	0.1 mg/kg	102	57.6	125	
EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.4	2.1 mg/kg	96.7	72.3	115	
EP074-UT: trans-1,2-Dichloroethene	156-60-5	0.02	mg/kg	<0.02	0.1 mg/kg	97.2	60.5	122	
EP074-UT: cis-1,2-Dichloroethene	156-59-2	0.01	mg/kg	<0.01	0.1 mg/kg	93.0	70.3	112	
EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.02	0.1 mg/kg	95.1	66.6	115	
EP074-UT: 1,1,1-Trichloroethane	71-55-6	0.01	mg/kg	<0.01	0.1 mg/kg	96.2	64.4	122	
EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.01	0.1 mg/kg	96.0	58.4	127	
EP074-UT: 1,2-Dichloroethane	107-06-2	0.02	mg/kg	<0.02	0.1 mg/kg	97.6	72.9	114	
EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.02	0.1 mg/kg	90.9	64.7	115	
EP074-UT: 1,1,2-Trichloroethane	79-00-5	0.04	mg/kg	<0.04	0.1 mg/kg	96.5	72.6	116	
EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.02	0.1 mg/kg	87.4	60.0	119	
EP074-UT: 1,1,1,2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.01	0.1 mg/kg	93.7	71.8	116	
EP074-UT: 1,1,2,2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.02	0.1 mg/kg	90.6	66.1	116	
EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.02	0.1 mg/kg	89.4	39.8	128	
EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.02	0.1 mg/kg	93.5	70.3	113	
EP074-UT: 1,4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.02	0.1 mg/kg	88.4	62.6	113	
EP074-UT: 1,2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.02	0.1 mg/kg	93.9	70.8	110	
EP074-UT: 1,2,4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.01	0.1 mg/kg	90.7	48.4	120	
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4325866)									
EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	2 mg/kg	85.7	74.5	126	
EP075-EM: 2,4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	2 mg/kg	91.2	72.7	126	
EP075-EM: 2,6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	2 mg/kg	92.4	73.5	132	
EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	2 mg/kg	93.2	72.8	128	
EP075-EM: 2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	2 mg/kg	79.4	73.3	134	
EP075-EM: 2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	2 mg/kg	79.3	72.4	128	
EP075-EM: 2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	2 mg/kg	79.2	69.4	126	



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
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4325866) - continued								
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	79.7	71.9	128
EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	4 mg/kg	84.1	54.4	135
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4325866)								
EP075-EM: Phenol	108-95-2	1	mg/kg	<1	2 mg/kg	84.2	71.5	130
EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	2 mg/kg	85.4	73.4	129
EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	4 mg/kg	84.2	74.3	129
EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	2 mg/kg	88.1	70.9	133
EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	2 mg/kg	86.9	71.8	132
EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	10 mg/kg	58.4	41.0	156
EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	10 mg/kg	87.1	65.3	134
EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	10 mg/kg	77.9	43.6	128
EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	10 mg/kg	87.5	62.0	128
EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<5	10 mg/kg	86.7	34.5	137
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4325866)								
EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	2 mg/kg	89.9	73.0	131
EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	2 mg/kg	79.0	76.3	130
EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	2 mg/kg	78.5	72.0	135
EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	2 mg/kg	79.6	74.4	131
EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	2 mg/kg	87.5	73.3	130
EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	2 mg/kg	88.1	78.4	127
EP075-EM: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	2 mg/kg	87.8	75.3	132
EP075-EM: Pyrene	129-00-0	0.5	mg/kg	<0.5	2 mg/kg	87.9	75.4	130
EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	2 mg/kg	88.2	69.6	133
EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	2 mg/kg	89.6	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	91.3	75.8	133
EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	2 mg/kg	90.5	65.1	130
EP075-EM: Indeno(1,2,3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	2 mg/kg	92.5	72.1	134
EP075-EM: Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	2 mg/kg	92.5	72.9	135
EP075-EM: Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	2 mg/kg	91.9	71.3	134
EP075I: Organochlorine Pesticides (QCLot: 4325866)								
EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	2 mg/kg	88.8	71.0	129
EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	2 mg/kg	90.2	74.8	126
EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	2 mg/kg	91.6	75.7	130
EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	2 mg/kg	90.2	70.8	130
EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	2 mg/kg	91.2	76.5	134
EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	2 mg/kg	89.8	75.5	131



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	
EP075I: Organochlorine Pesticides (QCLot: 4325866) - continued									
EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	2 mg/kg	91.5	76.8	130	
EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	2 mg/kg	89.1	73.6	130	
EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	2 mg/kg	90.4	75.0	133	
EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	2 mg/kg	90.1	75.3	131	
EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	2 mg/kg	114	69.4	134	
EP075-EM: 4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	2 mg/kg	93.5	71.0	132	
EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	2 mg/kg	90.2	78.0	133	
EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	2 mg/kg	85.2	69.0	143	
EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	2 mg/kg	90.4	55.7	145	
EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	2 mg/kg	89.7	71.4	135	
EP075-EM: 4.4'-DDD	72-54-8	0.05	mg/kg	<0.05	2 mg/kg	89.2	74.8	134	
EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.03	2 mg/kg	91.0	70.2	135	
EP075-EM: 4.4'-DDT	50-29-3	0.05	mg/kg	<0.05	2 mg/kg	88.5	77.7	133	
EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	2 mg/kg	93.7	63.6	135	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4324654)									
EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<10	39.6 mg/kg	93.6	61.1	119	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4325865)									
EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	670 mg/kg	110	74.4	129	
EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	2860 mg/kg	109	81.0	123	
EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	1490 mg/kg	104	81.8	121	
EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	5020 mg/kg	108	70.0	130	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4324654)									
EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	48.9 mg/kg	91.1	59.9	119	
EP074-UT: C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTE X	10	mg/kg	<10	----	----	----	----	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4325865)									
EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	1000 mg/kg	112	75.4	132	
EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	3770 mg/kg	110	80.8	120	
EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	250 mg/kg	102	73.3	136	
EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	5020 mg/kg	110	70.0	130	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4325428)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00111 mg/kg	83.0	72.0	128	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	87.4	73.0	123	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.0014 mg/kg	70.6	67.0	130	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	79.9	70.0	132	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	79.9	68.0	136	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00121 mg/kg	77.7	59.0	134	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4325428)									



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
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4325428) - continued									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	81.4	71.0	135	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	86.8	69.0	132	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	74.6	70.0	132	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	81.8	71.0	131	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	82.5	69.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	84.6	72.0	129	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	70.6	69.0	133	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	84.3	64.0	136	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	84.0	69.0	135	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	85.3	66.0	139	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	86.4	69.0	133	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4325428)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	85.7	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	89.7	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	82.1	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	77.0	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	77.6	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.5	63.0	144	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	86.6	61.0	139	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4325428)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	84.4	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	82.9	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	96.9	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	88.7	70.0	130	
EP231P: PFAS Sums (QCLot: 4325428)									
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
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4324879)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	101	72.0	130	



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	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4324879) - continued									
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	107	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	112	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	115	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	86.3	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	85.4	53.0	142	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4328365)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	94.8	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	113	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	91.6	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	115	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	84.0	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	92.0	53.0	142	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4329222)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	99.8	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	103	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	103	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	101	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	102	53.0	142	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4329411)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	104	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	104	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	101	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	94.2	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	92.5	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	95.0	53.0	142	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4324879)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	90.6	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	92.8	72.0	129	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	94.0	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	90.3	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	86.9	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	88.3	69.0	130	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	105	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	107	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	103	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	94.1	71.0	132	



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	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4328365)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	79.4	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	72.4	72.0	129	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	93.1	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	91.9	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	92.7	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	89.5	69.0	130	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	83.8	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	87.5	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	93.6	72.0	134	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	87.3	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	82.6	71.0	132	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4329222)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	98.0	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	99.1	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	101	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	102	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	98.7	69.0	130	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	105	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	105	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	105	72.0	134	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	89.8	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	96.9	71.0	132	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4329411)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	84.0	73.0	129	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	108	72.0	129	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	86.5	72.0	129	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	130	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	100	71.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	97.9	69.0	130	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	82.9	71.0	129	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	99.0	69.0	133	
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	96.4	72.0	134	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	91.6	65.0	144	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	110	71.0	132	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4324879)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	103	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	108	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	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4324879) - continued									
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	99.1	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	99.6	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	101	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	119	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	106	61.0	135	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4328365)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	92.7	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	96.2	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	95.8	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	97.2	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	82.0	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	103	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	90.5	61.0	135	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4329222)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	99.2	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	108	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	91.8	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	97.0	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	111	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	93.8	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	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4329411)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	98.6	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	108	68.0	141	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	102	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	103	70.0	130	



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	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4329411) - continued									
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	118	65.0	136	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	100	61.0	135	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4324879)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	98.2	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	97.3	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	96.6	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	82.6	70.0	130	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4328365)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	88.2	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	98.6	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	109	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	86.0	70.0	130	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4329222)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	107	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	114	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	113	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	92.0	70.0	130	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4329411)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	105	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	108	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	117	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	90.7	70.0	130	
EP231P: PFAS Sums (QCLot: 4324879)									
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----	
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----	
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----	
EP231P: PFAS Sums (QCLot: 4328365)									
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----	
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----	
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----	
EP231P: PFAS Sums (QCLot: 4329222)									
EP231X: Sum of PFAS	----	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
EP231P: PFAS Sums (QCLot: 4329222) - continued								
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231P: PFAS Sums (QCLot: 4329411)								
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 (%) MS	Acceptable Limits (%)	
					Low	High	
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4325945)							
EM2208272-002	SX_OB_20220505_08_08_SS_Duplicate_ALS	EG005T: Arsenic	7440-38-2	50 mg/kg	83.6	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	92.2	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	86.6	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	99.6	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	90.3	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	94.8	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	86.2	80.0	120
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4325946)							
EM2208272-002	SX_OB_20220505_08_08_SS_Duplicate_ALS	EG035T: Mercury	7439-97-6	0.5 mg/kg	106	76.0	116
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4326894)							
EM2208254-006	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	# 42.0	58.0	114
EM2208254-006	Anonymous	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	# 36.0	58.0	114
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4328986)							
EM2208230-002	Anonymous	EK026SF: Total Cyanide	57-12-5	20 mg/kg	95.4	70.0	130
EK040T: Fluoride Total (QCLot: 4328428)							
EM2208218-018	Anonymous	EK040T: Fluoride	16984-48-8	400 mg/kg	71.0	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4325864)							
EM2208272-005	SX_IB_20220505_12_17_SS_Primary_ALS	EP066-EM: Total Polychlorinated biphenyls	----	1 mg/kg	95.0	59.6	152
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4324654)							
EM2208272-002	SX_OB_20220505_08_08_SS_Duplicate_ALS	EP074-UT: Benzene	71-43-2	2 mg/kg	73.2	53.7	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
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4324654) - continued							
EM2208272-002	SX_OB_20220505_08_08_SS_Duplicate_ALS	EP074-UT: Toluene	108-88-3	2 mg/kg	75.9	55.1	124
EP074I: Volatile Halogenated Compounds (QCLot: 4324654)							
EM2208272-002	SX_OB_20220505_08_08_SS_Duplicate_ALS	EP074-UT: 1,1-Dichloroethene	75-35-4	2 mg/kg	60.4	38.4	145
		EP074-UT: Trichloroethene	79-01-6	2 mg/kg	66.6	48.1	128
		EP074-UT: Chlorobenzene	108-90-7	2 mg/kg	71.6	55.5	122
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4325866)							
EM2208272-002	SX_OB_20220505_08_08_SS_Duplicate_ALS	EP075-EM: 2-Chlorophenol	95-57-8	3 mg/kg	90.8	44.0	143
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	3 mg/kg	97.1	41.5	139
		EP075-EM: Pentachlorophenol	87-86-5	3 mg/kg	84.3	10.0	144
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4325866)							
EM2208272-002	SX_OB_20220505_08_08_SS_Duplicate_ALS	EP075-EM: Phenol	108-95-2	3 mg/kg	88.8	44.2	134
		EP075-EM: 2-Nitrophenol	88-75-5	3 mg/kg	90.9	34.2	129
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4325866)							
EM2208272-002	SX_OB_20220505_08_08_SS_Duplicate_ALS	EP075-EM: Acenaphthene	83-32-9	3 mg/kg	71.8	42.6	138
		EP075-EM: Pyrene	129-00-0	3 mg/kg	90.8	37.8	152
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4324654)							
EM2208272-002	SX_OB_20220505_08_08_SS_Duplicate_ALS	EP074-UT: C6 - C9 Fraction	----	28 mg/kg	82.4	42.3	111
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4325865)							
EM2208272-006	SX_IB_20220505_15_50_SS_Primary_ALS	EP071-EM: C10 - C14 Fraction	----	670 mg/kg	109	71.3	126
		EP071-EM: C15 - C28 Fraction	----	2860 mg/kg	107	75.1	123
		EP071-EM: C29 - C36 Fraction	----	1490 mg/kg	102	78.1	120
		EP071-EM: C10 - C36 Fraction (sum)	----	5020 mg/kg	106	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4324654)							
EM2208272-002	SX_OB_20220505_08_08_SS_Duplicate_ALS	EP074-UT: C6 - C10 Fraction	C6_C10	33 mg/kg	82.4	39.9	109
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4325865)							
EM2208272-006	SX_IB_20220505_15_50_SS_Primary_ALS	EP071-EM: >C10 - C16 Fraction	----	1000 mg/kg	110	71.5	130
		EP071-EM: >C16 - C34 Fraction	----	3770 mg/kg	107	76.9	119
		EP071-EM: >C34 - C40 Fraction	----	250 mg/kg	100	65.3	139
		EP071-EM: >C10 - C40 Fraction (sum)	----	5020 mg/kg	107	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4325428)							
EM2208040-008	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00111 mg/kg	95.4	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00118 mg/kg	95.0	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00114 mg/kg	91.6	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	88.5	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	83.8	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00121 mg/kg	# 35.2	59.0	134



Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4325428)							
EM2208040-008	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	78.9	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	106	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	78.6	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	94.8	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	94.4	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	106	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	73.5	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	87.7	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	90.0	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	127	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	93.0	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4325428)							
EM2208040-008	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	97.8	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	82.8	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	79.8	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	98.3	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	81.5	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	97.8	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4325428)							
EM2208040-008	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	93.6	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00119 mg/kg	104	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	100	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00121 mg/kg	# 42.5	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4328365)							
EM2208272-015	SX_OB_20220505_08_08_SS_Duplicate_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	90.2	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	91.7	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	87.5	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	92.0	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	83.8	65.0	140



Sub-Matrix: WATER

				Matrix Spike (MS) Report			
Laboratory sample ID		Sample ID	Method: Compound	CAS Number	Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%) Low High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4328365) - continued							
EM2208272-015	SX_OB_20220505_08_08_SS_Duplicate_ALS	EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	85.6	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4329222)							
EM2208127-015	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	97.3	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	91.7	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	107	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	100	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	93.4	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	90.3	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4329411)							
EM2208272-002	SX_OB_20220505_08_08_SS_Duplicate_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	90.6	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	99.4	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	99.1	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	105	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	99.1	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	109	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4328365)							
EM2208272-015	SX_OB_20220505_08_08_SS_Duplicate_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	89.0	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	93.7	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	92.9	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	87.8	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	91.9	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	93.5	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	91.2	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	86.0	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	99.4	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	89.9	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	89.8	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4329222)							
EM2208127-015	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	88.8	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	96.2	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	101	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	98.4	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	100	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	106	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	84.2	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	87.9	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	75.8	65.0	144



Sub-Matrix: WATER

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4329222) - continued							
EM2208127-015	Anonymous	EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	89.5	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4329411)							
EM2208272-002	SX_OB_20220505_08_08_SS_Duplicate_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	90.5	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	83.6	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	100	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	97.6	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	96.1	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	105	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	106	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	88.8	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	99.6	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	87.7	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	112	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4328365)							
EM2208272-015	SX_OB_20220505_08_08_SS_Duplicate_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	94.5	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	77.1	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	75.8	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	97.0	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	94.0	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	97.4	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	92.7	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4329222)							
EM2208127-015	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	102	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	89.3	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	83.6	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	98.0	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	96.8	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	96.3	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	96.2	61.0	135



Sub-Matrix: WATER

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4329411)							
EM2208272-002	SX_OB_20220505_08_08_SS_Duplicate_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	101	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	93.0	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	101	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	100	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	86.2	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	108	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	102	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4328365)							
EM2208272-015	SX_OB_20220505_08_08_SS_Duplicate_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	100	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	94.7	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	99.6	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	74.0	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4329222)							
EM2208127-015	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	100	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.238 µg/L	109	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	97.0	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	78.3	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4329411)							
EM2208272-002	SX_OB_20220505_08_08_SS_Duplicate_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.234 µg/L	97.3	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	102	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	78.3	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EM2208272	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	: 06-May-2022
Site	: 20220506044503-ALS-21	Issue Date	: 12-May-2022
Sampler	: ES - EP Risk, LR - EP Risk	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

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



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
Matrix Spike (MS) Recoveries							
EG048: Hexavalent Chromium (Alkaline Digest)	EM2208254--006	Anonymous	Hexavalent Chromium	18540-29-9	42.0 %	58.0-114%	Recovery less than lower data quality objective
EG048: Hexavalent Chromium (Alkaline Digest)	EM2208254--006	Anonymous	Hexavalent Chromium	18540-29-9	36.0 %	58.0-114%	Recovery less than lower data quality objective
EP231A: Perfluoroalkyl Sulfonic Acids	EM2208040--008	Anonymous	Perfluorodecane sulfonic acid (PFDS)	335-77-3	35.2 %	59.0-134%	Recovery less than lower data quality objective
EP231D: (n:2) Fluorotelomer Sulfonic Acids	EM2208040--008	Anonymous	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	42.5 %	70.0-130%	Recovery less than lower data quality objective

Outliers : Frequency of Quality Control Samples

Matrix: **SOIL**

Quality Control Sample Type	Count		Rate (%)		Quality Control Specification
	QC	Regular	Actual	Expected	
Matrix Spikes (MS)					
Total Fluoride	1	21	4.76	5.00	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Quality Control Sample Type	Count		Rate (%)		Quality Control Specification
	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)					
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	5	54	9.26	10.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

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

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

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

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

Matrix: **SOIL**

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

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



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	
EA001: pH in soil using 0.01M CaCl extract								
Soil Glass Jar - Unpreserved (EA001) SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	10-May-2022	12-May-2022	✓	10-May-2022	10-May-2022	✓
Soil Glass Jar - Unpreserved (EA001) SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	10-May-2022	13-May-2022	✓	10-May-2022	10-May-2022	✓
EA055: Moisture Content (Dried @ 105-110°C)								
Soil Glass Jar - Unpreserved (EA055) SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	----	----	----	09-May-2022	19-May-2022	✓
Soil Glass Jar - Unpreserved (EA055) SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	----	----	----	09-May-2022	20-May-2022	✓
EG005(ED093)T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved (EG005T) SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	10-May-2022	01-Nov-2022	✓	10-May-2022	01-Nov-2022	✓
Soil Glass Jar - Unpreserved (EG005T) SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	10-May-2022	02-Nov-2022	✓	10-May-2022	02-Nov-2022	✓
EG035T: Total Recoverable Mercury by FIMS								
Soil Glass Jar - Unpreserved (EG035T) SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	10-May-2022	02-Jun-2022	✓	10-May-2022	02-Jun-2022	✓
Soil Glass Jar - Unpreserved (EG035T) SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	10-May-2022	03-Jun-2022	✓	10-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	
EG048: Hexavalent Chromium (Alkaline Digest)								
Soil Glass Jar - Unpreserved (EG048G) SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	10-May-2022	02-Jun-2022	✓	10-May-2022	17-May-2022	✓
Soil Glass Jar - Unpreserved (EG048G) SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	10-May-2022	03-Jun-2022	✓	10-May-2022	17-May-2022	✓
EK026SF: Total CN by Segmented Flow Analyser								
Soil Glass Jar - Unpreserved (EK026SF) SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	10-May-2022	19-May-2022	✓	11-May-2022	24-May-2022	✓
Soil Glass Jar - Unpreserved (EK026SF) SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	10-May-2022	20-May-2022	✓	11-May-2022	24-May-2022	✓
EK040T: Fluoride Total								
Soil Glass Jar - Unpreserved (EK040T) SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	10-May-2022	02-Jun-2022	✓	12-May-2022	02-Jun-2022	✓
Soil Glass Jar - Unpreserved (EK040T) SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	10-May-2022	03-Jun-2022	✓	12-May-2022	03-Jun-2022	✓
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P)								
SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	09-May-2022	01-Nov-2022	✓	----	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P)								
SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	09-May-2022	02-Nov-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	
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)								
SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	09-May-2022	01-Nov-2022	✓	----	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)								
SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	09-May-2022	02-Nov-2022	✓	----	----	----
EP066: Polychlorinated Biphenyls (PCB)								
Soil Glass Jar - Unpreserved (EP066-EM)								
SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	10-May-2022	19-May-2022	✓	10-May-2022	19-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP066-EM)								
SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	10-May-2022	20-May-2022	✓	10-May-2022	19-Jun-2022	✓
EP074A: Monocyclic Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	06-May-2022	12-May-2022	✓	09-May-2022	12-May-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	06-May-2022	13-May-2022	✓	09-May-2022	13-May-2022	✓
EP074H: Naphthalene								
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	06-May-2022	12-May-2022	✓	09-May-2022	12-May-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	06-May-2022	13-May-2022	✓	09-May-2022	13-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	
EP074I: Volatile Halogenated Compounds								
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	06-May-2022	12-May-2022	✓	09-May-2022	12-May-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	06-May-2022	13-May-2022	✓	09-May-2022	13-May-2022	✓
EP075A: Phenolic Compounds (Halogenated)								
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	10-May-2022	19-May-2022	✓	10-May-2022	19-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	10-May-2022	20-May-2022	✓	10-May-2022	19-Jun-2022	✓
EP075A: Phenolic Compounds (Non-halogenated)								
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	10-May-2022	19-May-2022	✓	10-May-2022	19-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	10-May-2022	20-May-2022	✓	10-May-2022	19-Jun-2022	✓
EP075B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	10-May-2022	19-May-2022	✓	10-May-2022	19-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	10-May-2022	20-May-2022	✓	10-May-2022	19-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	
EP075I: Organochlorine Pesticides								
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	10-May-2022	19-May-2022	✓	10-May-2022	19-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP075-EM) SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	10-May-2022	20-May-2022	✓	10-May-2022	19-Jun-2022	✓
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	06-May-2022	12-May-2022	✓	09-May-2022	12-May-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	10-May-2022	19-May-2022	✓	10-May-2022	19-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	06-May-2022	13-May-2022	✓	09-May-2022	13-May-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	10-May-2022	20-May-2022	✓	10-May-2022	19-Jun-2022	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	06-May-2022	12-May-2022	✓	09-May-2022	12-May-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	10-May-2022	19-May-2022	✓	10-May-2022	19-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP074-UT) SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	06-May-2022	13-May-2022	✓	09-May-2022	13-May-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	10-May-2022	20-May-2022	✓	10-May-2022	19-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	
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE Soil Jar (EP231X) SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	09-May-2022	01-Nov-2022	✓	09-May-2022	18-Jun-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	09-May-2022	02-Nov-2022	✓	09-May-2022	18-Jun-2022	✓
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE Soil Jar (EP231X) SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	09-May-2022	01-Nov-2022	✓	09-May-2022	18-Jun-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	09-May-2022	02-Nov-2022	✓	09-May-2022	18-Jun-2022	✓
EP231C: Perfluoroalkyl Sulfonamides								
HDPE Soil Jar (EP231X) SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	09-May-2022	01-Nov-2022	✓	09-May-2022	18-Jun-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	09-May-2022	02-Nov-2022	✓	09-May-2022	18-Jun-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE Soil Jar (EP231X) SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	09-May-2022	01-Nov-2022	✓	09-May-2022	18-Jun-2022	✓
HDPE Soil Jar (EP231X) SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	09-May-2022	02-Nov-2022	✓	09-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		
EP231P: PFAS Sums									
HDPE Soil Jar (EP231X) SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS	05-May-2022	09-May-2022	01-Nov-2022	✓	09-May-2022	18-Jun-2022	✓	
HDPE Soil Jar (EP231X) SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	SX_IB_20220506_00_10_SS_Primary_ALS,	06-May-2022	09-May-2022	02-Nov-2022	✓	09-May-2022	18-Jun-2022	✓	

Matrix: WATER

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis				
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation		
EP231A: Perfluoroalkyl Sulfonic Acids									
HDPE (no PTFE) (EP231X) SX_OB_20220505_10_31_SR_Rinsate_ALS,	SX_OB_20220505_10_33_SB_Blank_ALS	05-May-2022	07-May-2022	01-Nov-2022	✓	07-May-2022	01-Nov-2022	✓	
HDPE (no PTFE) (EP231X) SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS, SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS, SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS, SX_IB_20220506_00_10_SS_Primary_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS, SX_IB_20220506_00_10_SS_Primary_ALS, SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS, SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	09-May-2022	10-May-2022	05-Nov-2022	✓	10-May-2022	05-Nov-2022	✓	
EP231B: Perfluoroalkyl Carboxylic Acids									
HDPE (no PTFE) (EP231X) SX_OB_20220505_10_31_SR_Rinsate_ALS,	SX_OB_20220505_10_33_SB_Blank_ALS	05-May-2022	07-May-2022	01-Nov-2022	✓	07-May-2022	01-Nov-2022	✓	
HDPE (no PTFE) (EP231X) SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS, SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS, SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS, SX_IB_20220506_00_10_SS_Primary_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS, SX_IB_20220506_00_10_SS_Primary_ALS, SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS, SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	09-May-2022	10-May-2022	05-Nov-2022	✓	10-May-2022	05-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	
EP231C: Perfluoroalkyl Sulfonamides								
HDPE (no PTFE) (EP231X) SX_OB_20220505_10_31_SR_Rinsate_ALS,	SX_OB_20220505_10_33_SB_Blank_ALS	05-May-2022	07-May-2022	01-Nov-2022	✓	07-May-2022	01-Nov-2022	✓
HDPE (no PTFE) (EP231X) SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_OB_20220505_20_00_SS_Triplicate_ALS, SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_00_10_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS, SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS, SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_00_10_SS_Primary_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS, SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_00_10_SS_Primary_ALS, SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS, SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	09-May-2022	10-May-2022	05-Nov-2022	✓	10-May-2022	05-Nov-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE (no PTFE) (EP231X) SX_OB_20220505_10_31_SR_Rinsate_ALS,	SX_OB_20220505_10_33_SB_Blank_ALS	05-May-2022	07-May-2022	01-Nov-2022	✓	07-May-2022	01-Nov-2022	✓
HDPE (no PTFE) (EP231X) SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_OB_20220505_20_00_SS_Triplicate_ALS, SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_00_10_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS, SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS, SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_00_10_SS_Primary_ALS,	SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_05_SS_Primary_ALS, SX_OB_20220506_00_10_SS_Primary_ALS, SX_IB_20220506_00_10_SS_Primary_ALS, SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS, SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	09-May-2022	10-May-2022	05-Nov-2022	✓	10-May-2022	05-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	
EP231P: PFAS Sums								
HDPE (no PTFE) (EP231X)								
SX_OB_20220505_10_31_SR_Rinsate_ALS, SX_OB_20220505_10_33_SB_Blank_ALS	05-May-2022	07-May-2022	01-Nov-2022	✓	07-May-2022	01-Nov-2022	✓	
HDPE (no PTFE) (EP231X)								
SX_OB_20220505_08_06_SS_Primary_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_IB_20220505_15_50_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_OB_20220505_20_00_SS_Triplicate_ALS, SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_00_10_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS, SX_OB_20220505_08_06_SS_Primary_ALS, SX_OB_20220505_08_08_SS_Duplicate_ALS, SX_IB_20220505_12_17_SS_Primary_ALS, SX_OB_20220505_15_50_SS_Primary_ALS, SX_IB_20220505_15_57_SS_Triplicate_ALS, SX_OB_20220505_16_02_SS_Primary_ALS, SX_IB_20220505_20_00_SS_Triplicate_ALS, SX_OB_20220505_20_05_SS_Primary_ALS, SX_OB_20220506_00_01_SS_Primary_ALS, SX_IB_20220506_00_10_SS_Primary_ALS, SX_IB_20220506_04_09_SS_Primary_ALS	09-May-2022	10-May-2022	05-Nov-2022	✓	10-May-2022	05-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	
Laboratory Duplicates (DUP)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	16	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Moisture Content	EA055	2	11	18.18	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	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	4	39	10.26	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	3	21	14.29	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	11	18.18	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	2	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
Laboratory Control Samples (LCS)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	16	12.50	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	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	4	39	10.26	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	2	21	9.52	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	11	9.09	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
Method Blanks (MB)							
Deionised Water Leach - Plastic Leaching Vessel	EN60-DIa-P	2	22	9.09	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	1	16	6.25	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	18	5.56	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	2	21	9.52	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	11	9.09	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	Regular	Actual	Expected	Evaluation	
Analytical Methods							
Matrix Spikes (MS)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	16	12.50	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	18	5.56	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	21	4.76	5.00	✖	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	11	9.09	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	Regular	Actual	Expected	Evaluation	
Analytical Methods							
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	5	54	9.26	10.00	✖	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	54	7.41	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	54	7.41	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	54	5.56	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 ₂ 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 ₂ 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 ₂) (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 ₂ which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3)
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	SOIL	In house: Referenced to USEPA SW846, Method 3060. Hexavalent chromium is extracted by alkaline digestion. The digest is determined by photometrically by automatic discrete analyser, following pH adjustment. The instrument uses colour development using dephenylcarbazide. Each run of samples is measured against a five-point calibration curve. This method is compliant with NEPM Schedule B(3)
Total Cyanide by Segmented Flow Analyser	EK026SF	SOIL	In house: Referenced to APHA 4500-CN C / ASTM D7511 / ISO 14403. Caustic leachates of soil samples are introduced into an automated segmented flow analyser. Complex bound cyanide is decomposed in a continuously flowing stream, at a pH of 3.8, by the effect of UV light. A UV-B lamp (312 nm) and a decomposition spiral of borosilicate glass are used to filter out UV light with a wavelength of less than 290 nm thus preventing the conversion of thiocyanate into cyanide. The hydrogen cyanide present at a pH of 3.8 is separated by gas dialysis. The hydrogen cyanide is then determined photometrically, based on the reaction of cyanide with chloramine-T to form cyanogen chloride. This then reacts with 4-pyridine carboxylic acid and 1,3-dimethylbarbituric acid to give a red colour which is measured at 600 nm. This method is compliant with NEPM Schedule B(3).
Total Fluoride	EK040T	SOIL	(In-house) Total fluoride is determined by ion specific electrode (ISE) in a solution obtained after a Sodium Carbonate / Potassium Carbonate fusion dissolution.
PCB - VIC EPA 448.3 Screen	EP066-EM	SOIL	In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3).
TRH - Semivolatile Fraction	EP071-EM	SOIL	In house: Referenced to USEPA SW 846 - 8015A Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40.
Volatile Organic Compounds - Ultra-trace	EP074-UT	SOIL	In house: Referenced to USEPA SW 846 - 8260 Extracts are analysed by Purge and Trap, Capillary GC/MS in partial SIM/Scan mode. Quantification is by comparison against an established multi-point calibration curves. This method is compliant with NEPM Schedule B(3).



Analytical Methods	Method	Matrix	Method Descriptions
Volatile Organic Compounds - Ultra-trace - Summations	EP074-UT-SUM	SOIL	Summation of MAHs and VHCs
Semivolatile Organic Compounds - Waste Classification	EP075-EM	SOIL	In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM Schedule B(3).
SVOC - Waste Classification (Sums)	EP075-EM-SUM	SOIL	Summations for EP075 (EM variation)
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
NaOH leach for CN in Soils	CN-PR	SOIL	In house: APHA 4500 CN. Samples are extracted by end-over-end tumbling with NaOH.
pH in soil using a 0.01M CaCl ₂ 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 ₂ 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 ₂ SO ₄ 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.
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

CERTIFICATE OF ANALYSIS

Work Order : **EM2208326**
Client : **AGON ENVIRONMENTAL PTY LTD**
Contact : Craig Trimbur
Address : D1.1 63-85 TURNER STREET
 PORT MELBOURNE 3207

Telephone : ----
Project : JC0927
Order number : ----
C-O-C number : 20220507043014-ALS-21
Sampler : HK - EP Risk, LR - EP Risk
Site : 20220507043014-ALS-21
Quote number : EN/150/19 -WGTP -Bulk Sample Quote
No. of samples received : 26
No. of samples analysed : 26

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 : 07-May-2022 08:55
Date Analysis Commenced : 09-May-2022
Issue Date : 16-May-2022 16:48



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
Nikki Stepniewski	Senior Inorganic Instrument Chemist	Melbourne Inorganics, Springvale, VIC
Xing Lin	Senior Organic Chemist	Melbourne Inorganics, Springvale, VIC
Xing Lin	Senior Organic Chemist	Melbourne Organics, Springvale, VIC



General Comments

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

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

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

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

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

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

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

- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a,h)anthracene (1.0), Benzo(g,h,i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP074-UT: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP074-WF: Where reported, Sum of trichlorobenzenes is the sum of the reported concentrations of 1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene, and 1,3,5-Trichlorobenzene at or above the LOR.
- EG048G: EM2208326 #1, 4, 5, 7, 10, 12 and 14, Positive Hexavalent chromium result has been 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_IB_20220506_07_52_SS_Primary_ALS	SX_OB_20220506_07_58_SS_Primary_ALS	SX_OB_20220506_07_59_SS_Duplicate_ALS	SX_IB_20220506_11_48_SS_Primary_ALS	SX_IB_20220506_16_01_SS_Primary_ALS
Sampling date / time				06-May-2022 09:52	06-May-2022 07:58	06-May-2022 07:59	06-May-2022 11:48	06-May-2022 16:01
Compound	CAS Number	LOR	Unit	EM2208326-001	EM2208326-002	EM2208326-003	EM2208326-004	EM2208326-005
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_IB_20220506_07_52_SS_Primary_ALS	SX_OB_20220506_07_58_SS_Primary_ALS	SX_OB_20220506_07_59_SS_Duplicate_ALS	SX_IB_20220506_11_48_SS_Primary_ALS	SX_IB_20220506_16_01_SS_Primary_ALS
Sampling date / time				06-May-2022 09:52	06-May-2022 07:58	06-May-2022 07:59	06-May-2022 11:48	06-May-2022 16:01
Compound	CAS Number	LOR	Unit	EM2208326-001	EM2208326-002	EM2208326-003	EM2208326-004	EM2208326-005
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums								
Sum of PFAS	----	0.10	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	88.8	96.0	96.1	90.6	93.1
13C8-PFOA	----	0.02	%	96.7	98.8	96.7	93.4	92.7



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_OB_20220506_16_07_SS_Primary_ALS	SX_IB_20220506_16_14_SS_Triplicate_ALS	SX_IB_20220506_19_56_SS_Triplicate_ALS	SX_IB_20220506_20_01_SS_Primary_ALS	SX_IB_20220507_00_01_SS_Primary_ALS
Sampling date / time				06-May-2022 16:07	06-May-2022 16:14	06-May-2022 19:56	06-May-2022 20:01	06-May-2022 00:01
Compound	CAS Number	LOR	Unit	EM2208326-006	EM2208326-007	EM2208326-010	EM2208326-011	EM2208326-012
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
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_OB_20220506_16_07_SS_Primary_ALS	SX_IB_20220506_16_14_SS_Triplicate_ALS	SX_IB_20220506_19_56_SS_Triplicate_ALS	SX_IB_20220506_20_01_SS_Primary_ALS	SX_IB_20220507_00_01_SS_Primary_ALS
Sampling date / time				06-May-2022 16:07	06-May-2022 16:14	06-May-2022 19:56	06-May-2022 20:01	06-May-2022 00:01
Compound	CAS Number	LOR	Unit	EM2208326-006	EM2208326-007	EM2208326-010	EM2208326-011	EM2208326-012
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums								
Sum of PFAS	----	0.10	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	96.0	92.0	94.4	103	96.1
13C8-PFOA	----	0.02	%	94.3	98.0	96.7	94.2	96.3



Analytical Results

Sub-Matrix: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

			SX_OB_20220507_00_06_SS_Primary_ALS	SX_IB_20220507_04_04_SS_Primary_ALS	----	----	----	
Sampling date / time			06-May-2022 00:06	06-May-2022 16:04	----	----	----	
Compound	CAS Number	LOR	Unit	EM2208326-013	EM2208326-014	-----	-----	-----
				Result	Result	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.05	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: ASLP LEACHATE
 (Matrix: WATER)

Sample ID

				SX_OB_20220507_00_06_SS_Primary_ALS	SX_IB_20220507_04_04_SS_Primary_ALS	----	----	----
				06-May-2022 00:06	06-May-2022 16:04	----	----	----
Compound	CAS Number	LOR	Unit	EM2208326-013	EM2208326-014	-----	-----	-----
				Result	Result	---	---	---
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.05	µg/L	<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.05	µg/L	<0.05	<0.05	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	----	----	----
EP231P: PFAS Sums								
Sum of PFAS	----	0.10	µg/L	<0.10	<0.10	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	----	----	----
Sum of PFAS (WA DER List)	----	0.05	µg/L	<0.05	<0.05	----	----	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	95.3	94.4	----	----	----
13C8-PFOA	----	0.02	%	97.4	96.1	----	----	----



Analytical Results

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

Sample ID

				SX_IB_20220506_07_52_SS_Primary_ALS	SX_OB_20220506_07_58_SS_Primary_ALS	SX_OB_20220506_07_59_SS_Duplicate_ALS	SX_IB_20220506_11_48_SS_Primary_ALS	SX_IB_20220506_16_01_SS_Primary_ALS
Sampling date / time				06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00
Compound	CAS Number	LOR	Unit	EM2208326-015	EM2208326-016	EM2208326-017	EM2208326-018	EM2208326-019
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Results

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

Sample ID

				SX_IB_20220506_07_52_SS_Primary_ALS	SX_OB_20220506_07_58_SS_Primary_ALS	SX_OB_20220506_07_59_SS_Duplicate_ALS	SX_IB_20220506_11_48_SS_Primary_ALS	SX_IB_20220506_16_01_SS_Primary_ALS
Sampling date / time				06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00
Compound	CAS Number	LOR	Unit	EM2208326-015	EM2208326-016	EM2208326-017	EM2208326-018	EM2208326-019
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	89.1	95.5	90.9	84.7	92.3
13C8-PFOA	----	0.02	%	93.4	93.2	101	92.4	95.7



Analytical Results

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

Sample ID

				SX_OB_20220506_16_07_SS_Primary_ALS	SX_IB_20220506_16_14_SS_Triplicate_ALS	SX_IB_20220506_19_56_SS_Triplicate_ALS	SX_IB_20220506_20_01_SS_Primary_ALS	SX_IB_20220507_00_01_SS_Primary_ALS
Sampling date / time				06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00
Compound	CAS Number	LOR	Unit	EM2208326-020	EM2208326-021	EM2208326-022	EM2208326-023	EM2208326-024
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
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_OB_20220506_16_07_SS_Primary_ALS	SX_IB_20220506_16_14_SS_Triplicate_ALS	SX_IB_20220506_19_56_SS_Triplicate_ALS	SX_IB_20220506_20_01_SS_Primary_ALS	SX_IB_20220507_00_01_SS_Primary_ALS
Sampling date / time				06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00
Compound	CAS Number	LOR	Unit	EM2208326-020	EM2208326-021	EM2208326-022	EM2208326-023	EM2208326-024
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	87.5	90.3	91.7	88.4	90.4
13C8-PFOA	----	0.02	%	92.1	94.8	98.6	96.9	96.2



Analytical Results

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

Sample ID

			SX_OB_20220507_00_06_SS_Primary_ALS	SX_IB_20220507_04_04_SS_Primary_ALS	----	----	----	
Sampling date / time			06-May-2022 00:00	06-May-2022 00:00	----	----	----	
Compound	CAS Number	LOR	Unit	EM2208326-025	EM2208326-026	-----	-----	-----
				Result	Result	---	---	---
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	----	----	----



Analytical Results

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

Sample ID

				SX_OB_20220507_00_06_SS_Primary_ALS	SX_IB_20220507_04_04_SS_Primary_ALS	----	----	----
				06-May-2022 00:00	06-May-2022 00:00	----	----	----
Compound	CAS Number	LOR	Unit	EM2208326-025	EM2208326-026	-----	-----	-----
				Result	Result	---	---	---
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	----	----	----
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	----	----	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	100	90.2	----	----	----
13C8-PFOA	----	0.02	%	94.4	96.1	----	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220506_07_52_SS_Primary_ALS	SX_OB_20220506_07_58_SS_Primary_ALS	SX_OB_20220506_07_59_SS_Duplicate_ALS	SX_IB_20220506_11_48_SS_Primary_ALS	SX_IB_20220506_16_01_SS_Primary_ALS
Sampling date / time				06-May-2022 09:52	06-May-2022 07:58	06-May-2022 07:59	06-May-2022 11:48	06-May-2022 16:01
Compound	CAS Number	LOR	Unit	EM2208326-001	EM2208326-002	EM2208326-003	EM2208326-004	EM2208326-005
				Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl2)	----	0.1	pH Unit	7.7	7.6	7.6	7.6	7.6
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	28.0	32.4	35.6	28.3	26.8
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	34	20	22	31	32
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	5	mg/kg	91	135	138	114	96
Copper	7440-50-8	5	mg/kg	59	65	78	60	56
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	156	202	230	175	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	89	126	151	104	85
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	1.0	mg/kg	1.9	<1.0	<1.0	1.2	1.5
EK026SF: Total CN by Segmented Flow Analyser								
Total Cyanide	57-12-5	5	mg/kg	<5	<5	<5	<5	<5
EK040T: Fluoride Total								
Fluoride	16984-48-8	100	mg/kg	130	<100	<100	110	120
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Initial pH	----	0.1	pH Unit	9.4	9.0	9.0	9.4	9.4
After HCl pH	----	0.1	pH Unit	1.4	1.3	1.4	1.4	1.4
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	5.0	5.0	5.1	5.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP074A: Monocyclic Aromatic Hydrocarbons								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220506_07_52_SS_Primary_ALS	SX_OB_20220506_07_58_SS_Primary_ALS	SX_OB_20220506_07_59_SS_Duplicate_ALS	SX_IB_20220506_11_48_SS_Primary_ALS	SX_IB_20220506_16_01_SS_Primary_ALS
Sampling date / time				06-May-2022 09:52	06-May-2022 07:58	06-May-2022 07:59	06-May-2022 11:48	06-May-2022 16:01
Compound	CAS Number	LOR	Unit	EM2208326-001	EM2208326-002	EM2208326-003	EM2208326-004	EM2208326-005
				Result	Result	Result	Result	Result
EP074A: Monocyclic Aromatic Hydrocarbons - Continued								
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of monocyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074H: Naphthalene								
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP074I: Volatile Halogenated Compounds								
Vinyl chloride	75-01-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethene	75-35-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Methylene chloride	75-09-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	156-60-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
cis-1,2-Dichloroethene	156-59-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	71-55-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	56-23-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	107-06-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	79-00-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1,2-Tetrachloroethane	630-20-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	79-34-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobutadiene	87-68-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Chlorobenzene	108-90-7	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	106-46-7	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	95-50-1	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,2,4-Trichlorobenzene	120-82-1	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Sum of volatile chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
^ Sum of other chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP075A: Phenolic Compounds (Halogenated)								



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220506_07_52_SS_Primary_ALS	SX_OB_20220506_07_58_SS_Primary_ALS	SX_OB_20220506_07_59_SS_Duplicate_ALS	SX_IB_20220506_11_48_SS_Primary_ALS	SX_IB_20220506_16_01_SS_Primary_ALS
Sampling date / time				06-May-2022 09:52	06-May-2022 07:58	06-May-2022 07:59	06-May-2022 11:48	06-May-2022 16:01
Compound	CAS Number	LOR	Unit	EM2208326-001	EM2208326-002	EM2208326-003	EM2208326-004	EM2208326-005
				Result	Result	Result	Result	Result
EP075A: Phenolic Compounds (Halogenated) - Continued								
2-Chlorophenol	95-57-8	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
2,4-Dichlorophenol	120-83-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
2,6-Dichlorophenol	87-65-0	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
4-Chloro-3-methylphenol	59-50-7	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
2,4,5-Trichlorophenol	95-95-4	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
2,4,6-Trichlorophenol	88-06-2	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03
2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4901-51-3/58-90-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Pentachlorophenol	87-86-5	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
^ Sum of Phenols (halogenated)	----	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
EP075A: Phenolic Compounds (Non-halogenated)								
Phenol	108-95-2	1	mg/kg	<1	<1	<1	<1	<1
2-Methylphenol	95-48-7	1	mg/kg	<1	<1	<1	<1	<1
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	<1	<1	<1
2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	<1	<1	<1
2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	<5	<5	<5
4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	<5	<5	<5
2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	<5	<5	<5
Dinoseb	88-85-7	20	mg/kg	<20	<20	<20	<20	<20
2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	20	mg/kg	<20	<20	<20	<20	<20
^ Sum of Phenols (non-halogenated)	----	20	mg/kg	<20	<20	<20	<20	<20
EP075B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220506_07_52_SS_Primary_ALS	SX_OB_20220506_07_58_SS_Primary_ALS	SX_OB_20220506_07_59_SS_Duplicate_ALS	SX_IB_20220506_11_48_SS_Primary_ALS	SX_IB_20220506_16_01_SS_Primary_ALS
Sampling date / time				06-May-2022 09:52	06-May-2022 07:58	06-May-2022 07:59	06-May-2022 11:48	06-May-2022 16:01
Compound	CAS Number	LOR	Unit	EM2208326-001	EM2208326-002	EM2208326-003	EM2208326-004	EM2208326-005
				Result	Result	Result	Result	Result
EP075B: Polynuclear Aromatic Hydrocarbons - Continued								
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	0.6	0.6	0.6	0.6
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	1.2	1.2	1.2
EP075I: Organochlorine Pesticides								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03
trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03
Endosulfan 1	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan 2	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of organochlorine pesticides	----	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220506_07_52_SS_Primary_ALS	SX_OB_20220506_07_58_SS_Primary_ALS	SX_OB_20220506_07_59_SS_Duplicate_ALS	SX_IB_20220506_11_48_SS_Primary_ALS	SX_IB_20220506_16_01_SS_Primary_ALS
Sampling date / time				06-May-2022 09:52	06-May-2022 07:58	06-May-2022 07:59	06-May-2022 11:48	06-May-2022 16:01
Compound	CAS Number	LOR	Unit	EM2208326-001	EM2208326-002	EM2208326-003	EM2208326-004	EM2208326-005
				Result	Result	Result	Result	Result
EP075I: Organochlorine Pesticides - Continued								
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.30	mg/kg	<0.30	<0.30	<0.30	<0.30	<0.30
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 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
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	20	mg/kg	<20	<20	<20	<20	<20
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C6 - C10 Fraction	C6_C10	20	mg/kg	<20	<20	<20	<20	<20
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50
>C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	<50	<50
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	mg/kg	<20	<20	<20	<20	<20
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorodecane sulfonic acid (PFDS)	335-77-3	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220506_07_52_SS_Primary_ALS	SX_OB_20220506_07_58_SS_Primary_ALS	SX_OB_20220506_07_59_SS_Duplicate_ALS	SX_IB_20220506_11_48_SS_Primary_ALS	SX_IB_20220506_16_01_SS_Primary_ALS
Sampling date / time				06-May-2022 09:52	06-May-2022 07:58	06-May-2022 07:59	06-May-2022 11:48	06-May-2022 16:01
Compound	CAS Number	LOR	Unit	EM2208326-001	EM2208326-002	EM2208326-003	EM2208326-004	EM2208326-005
				Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	5	µg/kg	<5	<5	<5	<5	<5
Perfluoropentanoic acid (PFPeA)	2706-90-3	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorohexanoic acid (PFHxA)	307-24-4	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluoroheptanoic acid (PFHpA)	375-85-9	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorooctanoic acid (PFOA)	335-67-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorononanoic acid (PFNA)	375-95-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorodecanoic acid (PFDA)	335-76-2	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorododecanoic acid (PFDoDA)	307-55-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	10.0	µg/kg	<10.0	<10.0	<10.0	<10.0	<10.0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	10.0	µg/kg	<10.0	<10.0	<10.0	<10.0	<10.0
EP231D: (n:2) Fluorotelomer Sulfonic Acids								



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220506_07_52_SS_Primary_ALS	SX_OB_20220506_07_58_SS_Primary_ALS	SX_OB_20220506_07_59_SS_Duplicate_ALS	SX_IB_20220506_11_48_SS_Primary_ALS	SX_IB_20220506_16_01_SS_Primary_ALS
Sampling date / time				06-May-2022 09:52	06-May-2022 07:58	06-May-2022 07:59	06-May-2022 11:48	06-May-2022 16:01
Compound	CAS Number	LOR	Unit	EM2208326-001	EM2208326-002	EM2208326-003	EM2208326-004	EM2208326-005
				Result	Result	Result	Result	Result
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	10.0	µg/kg	<10.0	<10.0	<10.0	<10.0	<10.0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP231P: PFAS Sums								
Sum of PFAS	----	50.0	µg/kg	<50.0	<50.0	<50.0	<50.0	<50.0
Sum of PFHxS and PFOS	355-46-4/1763-23-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Sum of PFAS (WA DER List)	----	10.0	µg/kg	<10.0	<10.0	<10.0	<10.0	<10.0
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	81.5	83.6	84.3	87.6	86.3
EP074S: VOC Surrogates (Ultra-Trace)								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	103	80.3	82.5	102	94.9
Toluene-D8	2037-26-5	0.1	%	113	74.3	78.7	92.8	89.8
4-Bromofluorobenzene	460-00-4	0.1	%	110	92.4	95.8	112	107
EP075S: Acid Extractable Surrogates (Waste Classification)								
Phenol-d6	13127-88-3	0.025	%	90.8	87.2	89.2	90.8	91.6
2-Chlorophenol-D4	93951-73-6	0.025	%	84.0	80.7	84.0	88.2	87.6
2,4,6-Tribromophenol	118-79-6	0.025	%	74.1	70.9	73.0	85.6	85.5
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)								
Nitrobenzene-D5	4165-60-0	0.025	%	91.5	88.3	90.7	100	100.0
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	82.4	80.2	82.9	89.9	89.3
2-Fluorobiphenyl	321-60-8	0.025	%	80.7	79.0	82.2	83.3	83.0
Anthracene-d10	1719-06-8	0.025	%	89.4	86.8	90.4	92.1	91.0
4-Terphenyl-d14	1718-51-0	0.025	%	90.2	88.4	93.6	89.6	90.2
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.0002	%	91.3	78.9	86.2	103	105
13C8-PFOA	----	0.0002	%	94.6	95.8	99.9	90.0	113



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	SX_OB_20220506_16_07_SS_Primary_ALS	SX_IB_20220506_16_14_SS_Triplicate_ALS	SX_IB_20220506_19_56_SS_Triplicate_ALS	SX_IB_20220506_20_01_SS_Primary_ALS	SX_IB_20220507_00_01_SS_Primary_ALS
Sampling date / time				06-May-2022 16:07	06-May-2022 16:14	06-May-2022 19:56	06-May-2022 20:01	06-May-2022 00:01	
Compound	CAS Number	LOR	Unit	EM2208326-006	EM2208326-007	EM2208326-010	EM2208326-011	EM2208326-012	
				Result	Result	Result	Result	Result	
EA001: pH in soil using 0.01M CaCl extract									
pH (CaCl ₂)	----	0.1	pH Unit	7.6	7.6	7.8	7.6	7.6	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%	34.0	27.2	30.9	25.4	25.4	
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg	24	35	31	32	37	
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1	
Chromium	7440-47-3	5	mg/kg	140	104	115	115	111	
Copper	7440-50-8	5	mg/kg	78	57	54	55	58	
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	248	168	163	167	160	
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	186	91	100	93	94	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	1.0	mg/kg	<1.0	1.7	1.6	<1.0	1.4	
EK026SF: Total CN by Segmented Flow Analyser									
Total Cyanide	57-12-5	5	mg/kg	<5	<5	<5	<5	<5	
EK040T: Fluoride Total									
Fluoride	16984-48-8	100	mg/kg	<100	100	110	130	130	
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)									
Initial pH	----	0.1	pH Unit	9.0	9.5	9.4	9.5	9.1	
After HCl pH	----	0.1	pH Unit	1.3	1.3	1.5	1.3	1.4	
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	
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	
EP074A: Monocyclic Aromatic Hydrocarbons									
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
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_OB_20220506_16_07_SS_Primary_ALS	SX_IB_20220506_16_14_SS_Triplicate_ALS	SX_IB_20220506_19_56_SS_Triplicate_ALS	SX_IB_20220506_20_01_SS_Primary_ALS	SX_IB_20220507_00_01_SS_Primary_ALS
Sampling date / time				06-May-2022 16:07	06-May-2022 16:14	06-May-2022 19:56	06-May-2022 20:01	06-May-2022 00:01
Compound	CAS Number	LOR	Unit	EM2208326-006	EM2208326-007	EM2208326-010	EM2208326-011	EM2208326-012
				Result	Result	Result	Result	Result
EP074A: Monocyclic Aromatic Hydrocarbons - Continued								
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
[^] Sum of monocyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
[^] Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP074H: Naphthalene								
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP074I: Volatile Halogenated Compounds								
Vinyl chloride	75-01-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethene	75-35-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Methylene chloride	75-09-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	156-60-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
cis-1,2-Dichloroethene	156-59-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	71-55-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	56-23-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	107-06-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	79-00-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1,2-Tetrachloroethane	630-20-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1,2,2-Tetrachloroethane	79-34-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobutadiene	87-68-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Chlorobenzene	108-90-7	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	106-46-7	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	95-50-1	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
1,2,4-Trichlorobenzene	120-82-1	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
[^] Sum of volatile chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
[^] Sum of other chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP075A: Phenolic Compounds (Halogenated)								
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_OB_20220506_16_07_SS_Primary_ALS	SX_IB_20220506_16_14_SS_Triplicate_ALS	SX_IB_20220506_19_56_SS_Triplicate_ALS	SX_IB_20220506_20_01_SS_Primary_ALS	SX_IB_20220507_00_01_SS_Primary_ALS
Sampling date / time				06-May-2022 16:07	06-May-2022 16:14	06-May-2022 19:56	06-May-2022 20:01	06-May-2022 00:01
Compound	CAS Number	LOR	Unit	EM2208326-006	EM2208326-007	EM2208326-010	EM2208326-011	EM2208326-012
				Result	Result	Result	Result	Result
EP075A: Phenolic Compounds (Halogenated) - Continued								
2,6-Dichlorophenol	87-65-0	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
4-Chloro-3-methylphenol	59-50-7	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
2,4,5-Trichlorophenol	95-95-4	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
2,4,6-Trichlorophenol	88-06-2	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03
2,3,4,5 & 2,3,4,6-Tetrachlorophenol	4901-51-3/58-90-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Pentachlorophenol	87-86-5	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
^ Sum of Phenols (halogenated)	----	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
EP075A: Phenolic Compounds (Non-halogenated)								
Phenol	108-95-2	1	mg/kg	<1	<1	<1	<1	<1
2-Methylphenol	95-48-7	1	mg/kg	<1	<1	<1	<1	<1
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	<1	<1	<1
2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	<1	<1	<1
2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	<5	<5	<5
4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	<5	<5	<5
2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	<5	<5	<5
Dinoseb	88-85-7	20	mg/kg	<20	<20	<20	<20	<20
2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	20	mg/kg	<20	<20	<20	<20	<20
^ Sum of Phenols (non-halogenated)	----	20	mg/kg	<20	<20	<20	<20	<20
EP075B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
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_OB_20220506_16_07_SS_Primary_ALS	SX_IB_20220506_16_14_SS_Triplicate_ALS	SX_IB_20220506_19_56_SS_Triplicate_ALS	SX_IB_20220506_20_01_SS_Primary_ALS	SX_IB_20220507_00_01_SS_Primary_ALS
Sampling date / time				06-May-2022 16:07	06-May-2022 16:14	06-May-2022 19:56	06-May-2022 20:01	06-May-2022 00:01
Compound	CAS Number	LOR	Unit	EM2208326-006	EM2208326-007	EM2208326-010	EM2208326-011	EM2208326-012
				Result	Result	Result	Result	Result
EP075B: Polynuclear Aromatic Hydrocarbons - Continued								
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	0.6	0.6	0.6	0.6
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	1.2	1.2	1.2
EP075I: Organochlorine Pesticides								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03
trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03
Endosulfan 1	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan 2	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4'-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of organochlorine pesticides	----	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
^ 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_OB_20220506_16_07_SS_Primary_ALS	SX_IB_20220506_16_14_SS_Triplicate_ALS	SX_IB_20220506_19_56_SS_Triplicate_ALS	SX_IB_20220506_20_01_SS_Primary_ALS	SX_IB_20220507_00_01_SS_Primary_ALS
Sampling date / time				06-May-2022 16:07	06-May-2022 16:14	06-May-2022 19:56	06-May-2022 20:01	06-May-2022 00:01	
Compound	CAS Number	LOR	Unit	EM2208326-006	EM2208326-007	EM2208326-010	EM2208326-011	EM2208326-012	
				Result	Result	Result	Result	Result	
EP075I: Organochlorine Pesticides - Continued									
^ Sum of other organochlorine pesticides				----	0.03	mg/kg	<0.03	<0.03	<0.03
EP080/071: Total Petroleum Hydrocarbons									
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
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
>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
EP231A: Perfluoroalkyl Sulfonic Acids									
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
EP231B: Perfluoroalkyl Carboxylic Acids									
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_OB_20220506_16_07_SS_Primary_ALS	SX_IB_20220506_16_14_SS_Triplicate_ALS	SX_IB_20220506_19_56_SS_Triplicate_ALS	SX_IB_20220506_20_01_SS_Primary_ALS	SX_IB_20220507_00_01_SS_Primary_ALS
Sampling date / time				06-May-2022 16:07	06-May-2022 16:14	06-May-2022 19:56	06-May-2022 20:01	06-May-2022 00:01	
Compound	CAS Number	LOR	Unit	EM2208326-006	EM2208326-007	EM2208326-010	EM2208326-011	EM2208326-012	
				Result	Result	Result	Result	Result	
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorooctanoic acid (PFOA)	335-67-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
Perfluorononanoic acid (PFNA)	375-95-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
Perfluorodecanoic acid (PFDA)	335-76-2	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
Perfluorododecanoic acid (PFDoDA)	307-55-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	10.0	µg/kg	<10.0	<10.0	<10.0	<10.0	<10.0	
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	10.0	µg/kg	<10.0	<10.0	<10.0	<10.0	<10.0	
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
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_OB_20220506_16_07_SS_Primary_ALS	SX_IB_20220506_16_14_SS_Triplicate_ALS	SX_IB_20220506_19_56_SS_Triplicate_ALS	SX_IB_20220506_20_01_SS_Primary_ALS	SX_IB_20220507_00_01_SS_Primary_ALS
Sampling date / time				06-May-2022 16:07	06-May-2022 16:14	06-May-2022 19:56	06-May-2022 20:01	06-May-2022 00:01	
Compound	CAS Number	LOR	Unit	EM2208326-006	EM2208326-007	EM2208326-010	EM2208326-011	EM2208326-012	
				Result	Result	Result	Result	Result	
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
EP231P: PFAS Sums									
Sum of PFAS	----	50.0	µg/kg	<50.0	<50.0	<50.0	<50.0	<50.0	
Sum of PFHxS and PFOS	355-46-4/1763-23-1	5.0	µg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
Sum of PFAS (WA DER List)	----	10.0	µg/kg	<10.0	<10.0	<10.0	<10.0	<10.0	
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%	88.7	83.2	85.0	88.8	81.8	
EP074S: VOC Surrogates (Ultra-Trace)									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	77.4	92.2	71.7	92.9	94.4	
Toluene-D8	2037-26-5	0.1	%	73.8	86.3	66.7	86.9	91.2	
4-Bromofluorobenzene	460-00-4	0.1	%	93.3	104	90.6	108	105	
EP075S: Acid Extractable Surrogates (Waste Classification)									
Phenol-d6	13127-88-3	0.025	%	90.6	88.9	90.2	92.1	87.7	
2-Chlorophenol-D4	93951-73-6	0.025	%	87.8	86.2	88.6	88.2	84.7	
2,4,6-Tribromophenol	118-79-6	0.025	%	82.9	82.3	82.6	85.9	79.8	
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)									
Nitrobenzene-D5	4165-60-0	0.025	%	99.8	97.5	98.1	100	94.9	
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	88.9	86.9	89.2	88.5	85.2	
2-Fluorobiphenyl	321-60-8	0.025	%	84.4	80.5	82.1	83.6	78.3	
Anthracene-d10	1719-06-8	0.025	%	91.6	88.5	90.9	91.7	86.4	
4-Terphenyl-d14	1718-51-0	0.025	%	90.4	87.8	88.5	90.8	85.1	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%	89.0	85.5	94.6	92.5	90.5	
13C8-PFOA	----	0.0002	%	95.0	92.0	93.8	100	99.6	



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220507_00_06_SS_Primary_ALS	SX_IB_20220507_04_04_SS_Primary_ALS	SX_IB_20220506_07_52_SS_Primary_ALS	SX_OB_20220506_07_58_SS_Primary_ALS	SX_OB_20220506_07_59_SS_Duplicate_ALS
Sampling date / time				06-May-2022 00:06	06-May-2022 16:04	06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00
Compound	CAS Number	LOR	Unit	EM2208326-013	EM2208326-014	EM2208326-015	EM2208326-016	EM2208326-017
				Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl ₂)	----	0.1	pH Unit	7.8	7.7	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	28.8	30.8	----	----	----
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	31	34	----	----	----
Cadmium	7440-43-9	1	mg/kg	<1	<1	----	----	----
Chromium	7440-47-3	5	mg/kg	100	118	----	----	----
Copper	7440-50-8	5	mg/kg	55	60	----	----	----
Lead	7439-92-1	5	mg/kg	<5	<5	----	----	----
Molybdenum	7439-98-7	5	mg/kg	<5	<5	----	----	----
Nickel	7440-02-0	5	mg/kg	172	180	----	----	----
Selenium	7782-49-2	5	mg/kg	<5	<5	----	----	----
Silver	7440-22-4	2	mg/kg	<2	<2	----	----	----
Tin	7440-31-5	10	mg/kg	<10	<10	----	----	----
Zinc	7440-66-6	5	mg/kg	105	102	----	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	----	----	----
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	1.0	mg/kg	<1.0	2.2	----	----	----
EK026SF: Total CN by Segmented Flow Analyser								
Total Cyanide	57-12-5	5	mg/kg	<5	<5	----	----	----
EK040T: Fluoride Total								
Fluoride	16984-48-8	100	mg/kg	120	180	----	----	----
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Initial pH	----	0.1	pH Unit	9.0	9.1	----	----	----
After HCl pH	----	0.1	pH Unit	1.4	1.4	----	----	----
Extraction Fluid pH	----	0.1	pH Unit	5.0	5.0	----	----	----
Final pH	----	0.1	pH Unit	5.1	5.2	----	----	----
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	----	----	9.2	8.7	8.7
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	----	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220507_00_06_SS_Primary_ALS	SX_IB_20220507_04_04_SS_Primary_ALS	SX_IB_20220506_07_52_SS_Primary_ALS	SX_OB_20220506_07_58_SS_Primary_ALS	SX_OB_20220506_07_59_SS_Duplicate_ALS
Sampling date / time				06-May-2022 00:06	06-May-2022 16:04	06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00
Compound	CAS Number	LOR	Unit	EM2208326-013	EM2208326-014	EM2208326-015	EM2208326-016	EM2208326-017
				Result	Result	Result	Result	Result
EP074A: Monocyclic Aromatic Hydrocarbons								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	----	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	----	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	----	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	----	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	----	----	----
^ Sum of monocyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	----	----	----
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	----	----	----
EP074H: Naphthalene								
Naphthalene	91-20-3	1	mg/kg	<1	<1	----	----	----
EP074I: Volatile Halogenated Compounds								
Vinyl chloride	75-01-4	0.50	mg/kg	<0.50	<0.50	----	----	----
1,1-Dichloroethene	75-35-4	0.50	mg/kg	<0.50	<0.50	----	----	----
Methylene chloride	75-09-2	0.5	mg/kg	<0.5	<0.5	----	----	----
trans-1,2-Dichloroethene	156-60-5	0.50	mg/kg	<0.50	<0.50	----	----	----
cis-1,2-Dichloroethene	156-59-2	0.50	mg/kg	<0.50	<0.50	----	----	----
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	----	----	----
1,1,1-Trichloroethane	71-55-6	0.50	mg/kg	<0.50	<0.50	----	----	----
Carbon Tetrachloride	56-23-5	0.50	mg/kg	<0.50	<0.50	----	----	----
1,2-Dichloroethane	107-06-2	0.50	mg/kg	<0.50	<0.50	----	----	----
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	----	----	----
1,1,2-Trichloroethane	79-00-5	0.50	mg/kg	<0.50	<0.50	----	----	----
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	----	----	----
1,1,1,2-Tetrachloroethane	630-20-6	0.50	mg/kg	<0.50	<0.50	----	----	----
1,1,2,2-Tetrachloroethane	79-34-5	0.50	mg/kg	<0.50	<0.50	----	----	----
Hexachlorobutadiene	87-68-3	0.50	mg/kg	<0.50	<0.50	----	----	----
Chlorobenzene	108-90-7	0.50	mg/kg	<0.50	<0.50	----	----	----
1,4-Dichlorobenzene	106-46-7	0.50	mg/kg	<0.50	<0.50	----	----	----
1,2-Dichlorobenzene	95-50-1	0.50	mg/kg	<0.50	<0.50	----	----	----
1,2,4-Trichlorobenzene	120-82-1	0.50	mg/kg	<0.50	<0.50	----	----	----
^ Sum of volatile chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	----	----	----
^ Sum of other chlorinated hydrocarbons	----	0.50	mg/kg	<0.50	<0.50	----	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220507_00_06_SS_Primary_ALS	SX_IB_20220507_04_04_SS_Primary_ALS	SX_IB_20220506_07_52_SS_Primary_ALS	SX_OB_20220506_07_58_SS_Primary_ALS	SX_OB_20220506_07_59_SS_Duplicate_ALS
Sampling date / time				06-May-2022 00:06	06-May-2022 16:04	06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00
Compound	CAS Number	LOR	Unit	EM2208326-013	EM2208326-014	EM2208326-015	EM2208326-016	EM2208326-017
				Result	Result	Result	Result	Result
EP075A: Phenolic Compounds (Halogenated)								
2-Chlorophenol	95-57-8	0.50	mg/kg	<0.50	<0.50	----	----	----
2,4-Dichlorophenol	120-83-2	0.50	mg/kg	<0.50	<0.50	----	----	----
2,6-Dichlorophenol	87-65-0	0.50	mg/kg	<0.50	<0.50	----	----	----
4-Chloro-3-methylphenol	59-50-7	1.00	mg/kg	<1.00	<1.00	----	----	----
2,4,5-Trichlorophenol	95-95-4	1.00	mg/kg	<1.00	<1.00	----	----	----
2,4,6-Trichlorophenol	88-06-2	1.00	mg/kg	<1.00	<1.00	----	----	----
2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<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	----	----	----
Pentachlorophenol	87-86-5	1.0	mg/kg	<1.0	<1.0	----	----	----
^ Sum of Phenols (halogenated)	----	1.00	mg/kg	<1.00	<1.00	----	----	----
EP075A: Phenolic Compounds (Non-halogenated)								
Phenol	108-95-2	1	mg/kg	<1	<1	----	----	----
2-Methylphenol	95-48-7	1	mg/kg	<1	<1	----	----	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	----	----	----
2-Nitrophenol	88-75-5	1	mg/kg	<1	<1	----	----	----
2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	<1	----	----	----
2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	<5	----	----	----
4-Nitrophenol	100-02-7	5	mg/kg	<5	<5	----	----	----
2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	<5	----	----	----
Dinoseb	88-85-7	20	mg/kg	<20	<20	----	----	----
2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	20	mg/kg	<20	<20	----	----	----
^ Sum of Phenols (non-halogenated)	----	20	mg/kg	<20	<20	----	----	----
EP075B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	----	----	----
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	----	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	----	----	----
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	----	----	----
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	----	----	----
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	----	----	----
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	----	----	----
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	----	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	----	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220507_00_06_SS_Primary_ALS	SX_IB_20220507_04_04_SS_Primary_ALS	SX_IB_20220506_07_52_SS_Primary_ALS	SX_OB_20220506_07_58_SS_Primary_ALS	SX_OB_20220506_07_59_SS_Duplicate_ALS
Sampling date / time				06-May-2022 00:06	06-May-2022 16:04	06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00
Compound	CAS Number	LOR	Unit	EM2208326-013	EM2208326-014	EM2208326-015	EM2208326-016	EM2208326-017
				Result	Result	Result	Result	Result
EP075B: Polynuclear Aromatic Hydrocarbons - Continued								
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	----	----	----
Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	----	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	----	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	----	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	----	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	----	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	----	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	0.6	----	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	----	----	----
EP075I: Organochlorine Pesticides								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	----	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	----	----	----
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	----	----	----
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	----	----	----
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	----	----	----
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	----	----	----
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	----	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	----	----	----
cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	<0.03	----	----	----
trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	<0.03	----	----	----
Endosulfan 1	959-98-8	0.05	mg/kg	<0.05	<0.05	----	----	----
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	----	----	----
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	----	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	----	----	----
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	----	----	----
Endosulfan 2	33213-65-9	0.05	mg/kg	<0.05	<0.05	----	----	----
4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	----	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	----	----	----
4.4`-DDT	50-29-3	0.05	mg/kg	<0.05	<0.05	----	----	----
Methoxychlor	72-43-5	0.05	mg/kg	<0.05	<0.05	----	----	----
^ Sum of organochlorine pesticides	----	0.10	mg/kg	<0.10	<0.10	----	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220507_00_06_SS_Primary_ALS	SX_IB_20220507_04_04_SS_Primary_ALS	SX_IB_20220506_07_52_SS_Primary_ALS	SX_OB_20220506_07_58_SS_Primary_ALS	SX_OB_20220506_07_59_SS_Duplicate_ALS
Sampling date / time				06-May-2022 00:06	06-May-2022 16:04	06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00
Compound	CAS Number	LOR	Unit	EM2208326-013	EM2208326-014	EM2208326-015	EM2208326-016	EM2208326-017
				Result	Result	Result	Result	Result
EP075I: Organochlorine Pesticides - Continued								
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.30	mg/kg	<0.30	<0.30	----	----	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.05	mg/kg	<0.05	<0.05	----	----	----
^ Chlordane	57-74-9	0.10	mg/kg	<0.10	<0.10	----	----	----
^ Sum of other organochlorine pesticides	----	0.03	mg/kg	<0.03	<0.03	----	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	20	mg/kg	<20	<20	----	----	----
C10 - C14 Fraction	----	50	mg/kg	<50	<50	----	----	----
C6 - C10 Fraction	C6_C10	20	mg/kg	<20	<20	----	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	<100	----	----	----
C29 - C36 Fraction	----	100	mg/kg	<100	<100	----	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	----	----	----
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	----	----	----
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	----	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	----	----	----
>C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	----	----	----
C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	mg/kg	<20	<20	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	5.0	µg/kg	<5.0	<5.0	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	5.0	µg/kg	<5.0	<5.0	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	5.0	µg/kg	<5.0	<5.0	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	5.0	µg/kg	<5.0	<5.0	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	5.0	µg/kg	<5.0	<5.0	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	5.0	µg/kg	<5.0	<5.0	----	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220507_00_06_SS_Primary_ALS	SX_IB_20220507_04_04_SS_Primary_ALS	SX_IB_20220506_07_52_SS_Primary_ALS	SX_OB_20220506_07_58_SS_Primary_ALS	SX_OB_20220506_07_59_SS_Duplicate_ALS
Sampling date / time				06-May-2022 00:06	06-May-2022 16:04	06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00
Compound	CAS Number	LOR	Unit	EM2208326-013	EM2208326-014	EM2208326-015	EM2208326-016	EM2208326-017
				Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	5	µg/kg	<5	<5	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	5.0	µg/kg	<5.0	<5.0	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	5.0	µg/kg	<5.0	<5.0	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	5.0	µg/kg	<5.0	<5.0	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	5.0	µg/kg	<5.0	<5.0	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	5.0	µg/kg	<5.0	<5.0	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	5.0	µg/kg	<5.0	<5.0	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	5.0	µg/kg	<5.0	<5.0	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	5.0	µg/kg	<5.0	<5.0	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	5.0	µg/kg	<5.0	<5.0	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	5.0	µg/kg	<5.0	<5.0	----	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	5.0	µg/kg	<5.0	<5.0	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	5.0	µg/kg	<5.0	<5.0	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	5.0	µg/kg	<5.0	<5.0	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	5.0	µg/kg	<5.0	<5.0	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	5.0	µg/kg	<5.0	<5.0	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	10.0	µg/kg	<10.0	<10.0	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	10.0	µg/kg	<10.0	<10.0	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids								



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_OB_20220507_00_06_SS_Primary_ALS	SX_IB_20220507_04_04_SS_Primary_ALS	SX_IB_20220506_07_52_SS_Primary_ALS	SX_OB_20220506_07_58_SS_Primary_ALS	SX_OB_20220506_07_59_SS_Duplicate_ALS
Sampling date / time				06-May-2022 00:06	06-May-2022 16:04	06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00
Compound	CAS Number	LOR	Unit	EM2208326-013	EM2208326-014	EM2208326-015	EM2208326-016	EM2208326-017
				Result	Result	Result	Result	Result
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	5.0	µg/kg	<5.0	<5.0	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	10.0	µg/kg	<10.0	<10.0	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	5.0	µg/kg	<5.0	<5.0	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	5.0	µg/kg	<5.0	<5.0	----	----	----
EP231P: PFAS Sums								
Sum of PFAS	----	50.0	µg/kg	<50.0	<50.0	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	5.0	µg/kg	<5.0	<5.0	----	----	----
Sum of PFAS (WA DER List)	----	10.0	µg/kg	<10.0	<10.0	----	----	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	84.3	88.7	----	----	----
EP074S: VOC Surrogates (Ultra-Trace)								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	60.7	111	----	----	----
Toluene-D8	2037-26-5	0.1	%	61.6	106	----	----	----
4-Bromofluorobenzene	460-00-4	0.1	%	78.7	118	----	----	----
EP075S: Acid Extractable Surrogates (Waste Classification)								
Phenol-d6	13127-88-3	0.025	%	87.1	92.0	----	----	----
2-Chlorophenol-D4	93951-73-6	0.025	%	84.1	89.5	----	----	----
2,4,6-Tribromophenol	118-79-6	0.025	%	81.0	81.8	----	----	----
EP075T: Base/Neutral Extractable Surrogates (Waste Classification)								
Nitrobenzene-D5	4165-60-0	0.025	%	94.4	101	----	----	----
1,2-Dichlorobenzene-D4	2199-69-1	0.025	%	84.5	89.5	----	----	----
2-Fluorobiphenyl	321-60-8	0.025	%	80.4	83.5	----	----	----
Anthracene-d10	1719-06-8	0.025	%	88.0	92.5	----	----	----
4-Terphenyl-d14	1718-51-0	0.025	%	86.0	91.3	----	----	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.0002	%	97.0	104	----	----	----
13C8-PFOA	----	0.0002	%	93.8	106	----	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				SX_IB_20220506_11_48_SS_Primary_ALS	SX_IB_20220506_16_01_SS_Primary_ALS	SX_OB_20220506_16_07_SS_Primary_ALS	SX_IB_20220506_16_14_SS_Triplicate_ALS	SX_IB_20220506_19_56_SS_Triplicate_ALS
Sampling date / time				06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00
Compound	CAS Number	LOR	Unit	EM2208326-018	EM2208326-019	EM2208326-020	EM2208326-021	EM2208326-022
				Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	9.2	9.3	8.8	9.4	9.4



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

			SX_IB_20220506_20_01_SS_Primary_ALS	SX_IB_20220507_00_01_SS_Primary_ALS	SX_OB_20220507_00_06_SS_Primary_ALS	SX_IB_20220507_04_04_SS_Primary_ALS	----	
Sampling date / time			06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00	----	
Compound	CAS Number	LOR	Unit	EM2208326-023	EM2208326-024	EM2208326-025	EM2208326-026	-----
				Result	Result	Result	Result	----
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	9.5	9.3	9.1	9.5	----



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID		SX_IB_20220506_17_05_SR_Rinsate_ALS	SX_IB_20220506_17_06_SB_Blank_ALS	----	----	----
Sampling date / time			06-May-2022 17:05		06-May-2022 17:06		----	----	----
Compound	CAS Number	LOR	Unit	EM2208326-008	EM2208326-009	-----	-----	-----	
				Result	Result	---	---	---	
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	----	----	----	
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	----	----	----	
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	----	----	----	
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.10	µg/L	<0.10	<0.10	----	----	----	
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	----	----	----	
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	----	----	----	
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	----	----	----	
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	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_20220506_17_05_SR_Rinsate_ALS	SX_IB_20220506_17_06_SB_Blank_ALS	----	----	----
Sampling date / time				06-May-2022 17:05	06-May-2022 17:06	----	----	----	
Compound	CAS Number	LOR	Unit	EM2208326-008	EM2208326-009	-----	-----	-----	
				Result	Result	---	---	---	
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	----	----	----	
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	----	----	----	
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	----	----	----	
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	----	----	----	
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	----	----	----	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	----	----	----	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	----	----	----	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	----	----	----	
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	----	----	----	
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	----	----	----	
Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	----	----	----	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%	106	107	----	----	----	
13C8-PFOA	----	0.02	%	104	105	----	----	----	



Surrogate Control Limits

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

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

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

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

Automated Guideline Comparison Report

EPA Victoria Publication IWRG 621 (2009) - Table 2: Soil Hazard Categorisation

Work Order	: EM2208326	Page	: 1 of 33
Client	: AGON ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: Craig Trimbur		
Address	: D1.1 63-85 TURNER STREET PORT MELBOURNE 3207	Address	: 4 Westall Rd Springvale VIC Australia 3171
E-mail	: Craig.Trimbur@eprisk.com.au	E-mail	: Josh.Alexander@alsglobal.com
Telephone	: ----	Telephone	: +61-3-8549 9600
Facsimile	: ----	Facsimile	: +61-3-8549 9626
Project	: JC0927	Date Received	: 07-May-2022 08:55
Order number	: ----	Date Analysed	: 09-May-2022
C-O-C number	: 20220507043014-ALS-21	Date Issued	: 16-May-2022 16:50
No. of samples received	: 26		
No. of samples analysed	: 26	Quote number	: EN/150/19 -WGTP -Bulk Sample Quote

General Comments

This guideline comparison report **only** provides comparison of total concentration data against upper limit thresholds for the 'Fill Material', 'C', 'B' Categories in Table 2 of EPA Publication IWRG621.

This guideline comparison report is **NOT** a soil classification report. Classification of soils as Fill Material, Category C, Category B or Category A requires consideration of a number of other factors including preliminary site investigation, sampling density and statistical calculations, as set out in EPA Publication IWRG 702 and measurement uncertainty.

This guideline comparison report only provides comparison data for parameters, specifically listed within the IWRG621 (2009) guideline, that are analysed by ALS.

Only results in the 'Analytical Results' section have been compared to the guideline.

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



Summary of Thresholds Reached or Exceeded

EPA Victoria Publication IWRG 621 (2009)

Table 2: Soil Hazard Categorisation Thresholds : Fill Material

Client Sample ID	ALS Sample ID	Compound	Method	LOR	Limits	Result
SX_IB_20220506_07_52_S S_Primary_ALS	EM2208326-001	Arsenic	EG005T	5	< 20 mg/kg	34 mg/kg
SX_IB_20220506_07_52_S S_Primary_ALS	EM2208326-001	Nickel	EG005T	5	< 60 mg/kg	156 mg/kg
SX_IB_20220506_07_52_S S_Primary_ALS	EM2208326-001	Hexavalent Chromium	EG048G	1.0	< 1 mg/kg	1.9 mg/kg
SX_OB_20220506_07_58_ SS_Primary_ALS	EM2208326-002	Arsenic	EG005T	5	< 20 mg/kg	20 mg/kg
SX_OB_20220506_07_58_ SS_Primary_ALS	EM2208326-002	Nickel	EG005T	5	< 60 mg/kg	202 mg/kg
SX_OB_20220506_07_59_ SS_Duplicate_ALS	EM2208326-003	Arsenic	EG005T	5	< 20 mg/kg	22 mg/kg
SX_OB_20220506_07_59_ SS_Duplicate_ALS	EM2208326-003	Nickel	EG005T	5	< 60 mg/kg	230 mg/kg
SX_IB_20220506_11_48_S S_Primary_ALS	EM2208326-004	Arsenic	EG005T	5	< 20 mg/kg	31 mg/kg
SX_IB_20220506_11_48_S S_Primary_ALS	EM2208326-004	Nickel	EG005T	5	< 60 mg/kg	175 mg/kg
SX_IB_20220506_11_48_S S_Primary_ALS	EM2208326-004	Hexavalent Chromium	EG048G	1.0	< 1 mg/kg	1.2 mg/kg
SX_IB_20220506_16_01_S S_Primary_ALS	EM2208326-005	Arsenic	EG005T	5	< 20 mg/kg	32 mg/kg
SX_IB_20220506_16_01_S S_Primary_ALS	EM2208326-005	Nickel	EG005T	5	< 60 mg/kg	155 mg/kg
SX_IB_20220506_16_01_S S_Primary_ALS	EM2208326-005	Hexavalent Chromium	EG048G	1.0	< 1 mg/kg	1.5 mg/kg
SX_OB_20220506_16_07_ SS_Primary_ALS	EM2208326-006	Arsenic	EG005T	5	< 20 mg/kg	24 mg/kg
SX_OB_20220506_16_07_ SS_Primary_ALS	EM2208326-006	Nickel	EG005T	5	< 60 mg/kg	248 mg/kg
SX_IB_20220506_16_14_S S_Triplicate_ALS	EM2208326-007	Arsenic	EG005T	5	< 20 mg/kg	35 mg/kg
SX_IB_20220506_16_14_S S_Triplicate_ALS	EM2208326-007	Nickel	EG005T	5	< 60 mg/kg	168 mg/kg
SX_IB_20220506_16_14_S S_Triplicate_ALS	EM2208326-007	Hexavalent Chromium	EG048G	1.0	< 1 mg/kg	1.7 mg/kg
SX_IB_20220506_19_56_S S_Triplicate_ALS	EM2208326-010	Arsenic	EG005T	5	< 20 mg/kg	31 mg/kg



EPA Victoria Publication IWRG 621 (2009)

Table 2: Soil Hazard Categorisation Thresholds : Fill Material

Client Sample ID	ALS Sample ID	Compound	Method	LOR	Limits	Result
SX_IB_20220506_19_56_S S_Triplicate_ALS	EM2208326-010	Nickel	EG005T	5	< 60 mg/kg	163 mg/kg
SX_IB_20220506_19_56_S S_Triplicate_ALS	EM2208326-010	Hexavalent Chromium	EG048G	1.0	< 1 mg/kg	1.6 mg/kg
SX_IB_20220506_20_01_S S_Primary_ALS	EM2208326-011	Arsenic	EG005T	5	< 20 mg/kg	32 mg/kg
SX_IB_20220506_20_01_S S_Primary_ALS	EM2208326-011	Nickel	EG005T	5	< 60 mg/kg	167 mg/kg
SX_IB_20220507_00_01_S S_Primary_ALS	EM2208326-012	Arsenic	EG005T	5	< 20 mg/kg	37 mg/kg
SX_IB_20220507_00_01_S S_Primary_ALS	EM2208326-012	Nickel	EG005T	5	< 60 mg/kg	160 mg/kg
SX_IB_20220507_00_01_S S_Primary_ALS	EM2208326-012	Hexavalent Chromium	EG048G	1.0	< 1 mg/kg	1.4 mg/kg
SX_OB_20220507_00_06_ SS_Primary_ALS	EM2208326-013	Arsenic	EG005T	5	< 20 mg/kg	31 mg/kg
SX_OB_20220507_00_06_ SS_Primary_ALS	EM2208326-013	Nickel	EG005T	5	< 60 mg/kg	172 mg/kg
SX_IB_20220507_04_04_S S_Primary_ALS	EM2208326-014	Arsenic	EG005T	5	< 20 mg/kg	34 mg/kg
SX_IB_20220507_04_04_S S_Primary_ALS	EM2208326-014	Nickel	EG005T	5	< 60 mg/kg	180 mg/kg
SX_IB_20220507_04_04_S S_Primary_ALS	EM2208326-014	Hexavalent Chromium	EG048G	1.0	< 1 mg/kg	2.2 mg/kg



Soil Hazard Categorisation and Management

Table 2: Soil Hazard Categorisation Thresholds : Category B: Table 2: Soil Hazard Categorisation Thresholds : Category B

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_IB_20220	SX_OB_20220	SX_OB_20220	SX_IB_20220	SX_IB_20220
				Guideline	Guideline	506_07_52_S	506_07_58_S	506_07_59_S	506_11_48_S	506_16_01_S
						S_Primary_ALS	S_Primary_ALS	S_Duplicate_ALS	S_Primary_ALS	S_Primary_ALS
				Lower Limit	Upper Limit	06-May-2022 09:52	06-May-2022 07:58	06-May-2022 07:59	06-May-2022 11:48	06-May-2022 16:01
						EM2208326-001 MU	EM2208326-002 MU	EM2208326-003 MU	EM2208326-004 MU	EM2208326-005 MU
EP075A: Phenolic Compounds (Non-halogenated)										
Sum of Phenols (non-halogenated)	EP075-EM-SUM	20	mg/kg	----	2200	<20 ..	<20 ..	<20 ..	<20 ..	<20 ..
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	20	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..
Sum of polycyclic aromatic hydrocarbons	EP075-EM-SUM	0.5	mg/kg	----	400	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..
EP075I: Organochlorine Pesticides										
Heptachlor	EP075-EM	0.05	mg/kg	----	4.8	<0.05 ..	<0.05 ..	<0.05 ..	<0.05 ..	<0.05 ..
Sum of Aldrin + Dieldrin	EP075-EM-SUM	0.30	mg/kg	----	4.8	<0.30 ..	<0.30 ..	<0.30 ..	<0.30 ..	<0.30 ..
Sum of DDD + DDE + DDT	EP075-EM-SUM	0.05	mg/kg	----	50	<0.05 ..	<0.05 ..	<0.05 ..	<0.05 ..	<0.05 ..
Chlordane	EP075-EM-SUM	0.10	mg/kg	----	16	<0.10 ..	<0.10 ..	<0.10 ..	<0.10 ..	<0.10 ..
Sum of other organochlorine pesticides	EP075-EM-SUM	0.03	mg/kg	----	50	<0.03 ..	<0.03 ..	<0.03 ..	<0.03 ..	<0.03 ..
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP074-UT	20	mg/kg	----	2600	<20 ..	<20 ..	<20 ..	<20 ..	<20 ..
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	40000	<50 ..	<50 ..	<50 ..	<50 ..	<50 ..



Soil Hazard Categorisation and Management

Table 2: Soil Hazard Categorisation Thresholds : Category C: Table 2: Soil Hazard Categorisation Thresholds : Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_IB_20220	SX_OB_20220	SX_OB_20220	SX_IB_20220	SX_IB_20220
				Sampling date/time		506_07_52_S	506_07_58_S	506_07_59_S	506_11_48_S	506_16_01_S
				Lower Limit	Upper Limit	S_Primary_ALS	S_Primary_ALS	S_Duplicate_ALS	S_Primary_ALS	S_Primary_ALS
						06-May-2022 09:52	06-May-2022 07:58	06-May-2022 07:59	06-May-2022 11:48	06-May-2022 16:01
						EM2208326-001 MU	EM2208326-002 MU	EM2208326-003 MU	EM2208326-004 MU	EM2208326-005 MU
EA001: pH in soil using 0.01M CaCl extract										
pH (CaCl2)	EA001	0.1	pH Unit	4	9	7.7 ± 0.1	7.6 ± 0.1	7.6 ± 0.1	7.6 ± 0.1	7.6 ± 0.1
EG005(ED093)T: Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	----	500	34 ± 5	20 ± 3	22 ± 3	31 ± 4	32 ± 4
Cadmium	EG005T	1	mg/kg	----	100	<1 ..	<1 ..	<1 ..	<1 ..	<1 ..
Copper	EG005T	5	mg/kg	----	5000	59 ± 7	65 ± 8	78 ± 10	60 ± 7	56 ± 7
Lead	EG005T	5	mg/kg	----	1500	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
Molybdenum	EG005T	5	mg/kg	----	1000	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
Nickel	EG005T	5	mg/kg	----	3000	156 ± 15	202 ± 20	230 ± 22	175 ± 17	155 ± 15
Selenium	EG005T	5	mg/kg	----	50	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
Silver	EG005T	2	mg/kg	----	180	<2 ..	<2 ..	<2 ..	<2 ..	<2 ..
Tin	EG005T	10	mg/kg	----	500	<10 ..	<10 ..	<10 ..	<10 ..	<10 ..
Zinc	EG005T	5	mg/kg	----	35000	89 ± 10	126 ± 14	151 ± 16	104 ± 11	85 ± 10
EG035T: Total Recoverable Mercury by FIMS										
Mercury	EG035T	0.1	mg/kg	----	75	<0.1 ..	<0.1 ..	<0.1 ..	<0.1 ..	<0.1 ..
EG048: Hexavalent Chromium (Alkaline Digest)										
Hexavalent Chromium	EG048G	1.0	mg/kg	----	500	1.9 ± 0.4	<1.0 ..	<1.0 ..	1.2 ± 0.2	1.5 ± 0.3
EK026SF: Total CN by Segmented Flow Analyser										
Total Cyanide	EK026SF	5	mg/kg	----	2500	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
EK040T: Fluoride Total										
Fluoride	EK040T	100	mg/kg	----	10000	130 ± 30	<100 ..	<100 ..	110 ± 30	120 ± 30
EP074A: Monocyclic Aromatic Hydrocarbons										
Benzene	EP074-UT	0.2	mg/kg	----	4	<0.2 ..	<0.2 ..	<0.2 ..	<0.2 ..	<0.2 ..
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.5	mg/kg	----	70	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..
EP074I: Volatile Halogenated Compounds										
Vinyl chloride	EP074-UT	0.50	mg/kg	----	1.2	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..
Hexachlorobutadiene	EP074-UT	0.50	mg/kg	----	2.8	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..
Sum of other chlorinated hydrocarbons	EP074-UT-SUM	0.50	mg/kg	----	10	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..
EP075A: Phenolic Compounds (Halogenated)										
Sum of Phenols (halogenated)	EP075-EM-SUM	1.00	mg/kg	----	10	<1.00 ..	<1.00 ..	<1.00 ..	<1.00 ..	<1.00 ..



Soil Hazard Categorisation and Management

Table 2: Soil Hazard Categorisation Thresholds : Category C: Table 2: Soil Hazard Categorisation Thresholds : Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_IB_20220	SX_OB_20220	SX_OB_20220	SX_IB_20220	SX_IB_20220
				Guideline	Guideline	506_07_52_S	506_07_58_S	506_07_59_S	506_11_48_S	506_16_01_S
						S_Primary_ALS	S_Primary_ALS	S_Duplicate_ALS	S_Primary_ALS	S_Primary_ALS
				Lower Limit	Upper Limit	06-May-2022 09:52	06-May-2022 07:58	06-May-2022 07:59	06-May-2022 11:48	06-May-2022 16:01
						EM2208326-001 MU	EM2208326-002 MU	EM2208326-003 MU	EM2208326-004 MU	EM2208326-005 MU
EP075A: Phenolic Compounds (Non-halogenated)										
Sum of Phenols (non-halogenated)	EP075-EM-SUM	20	mg/kg	----	560	<20 ..	<20 ..	<20 ..	<20 ..	<20 ..
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	5	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..
Sum of polycyclic aromatic hydrocarbons	EP075-EM-SUM	0.5	mg/kg	----	100	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..
EP075I: Organochlorine Pesticides										
Heptachlor	EP075-EM	0.05	mg/kg	----	1.2	<0.05 ..	<0.05 ..	<0.05 ..	<0.05 ..	<0.05 ..
Sum of Aldrin + Dieldrin	EP075-EM-SUM	0.30	mg/kg	----	1.2	<0.30 ..	<0.30 ..	<0.30 ..	<0.30 ..	<0.30 ..
Sum of DDD + DDE + DDT	EP075-EM-SUM	0.05	mg/kg	----	50	<0.05 ..	<0.05 ..	<0.05 ..	<0.05 ..	<0.05 ..
Chlordane	EP075-EM-SUM	0.10	mg/kg	----	4	<0.10 ..	<0.10 ..	<0.10 ..	<0.10 ..	<0.10 ..
Sum of other organochlorine pesticides	EP075-EM-SUM	0.03	mg/kg	----	10	<0.03 ..	<0.03 ..	<0.03 ..	<0.03 ..	<0.03 ..
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP074-UT	20	mg/kg	----	650	<20 ..	<20 ..	<20 ..	<20 ..	<20 ..
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	10000	<50 ..	<50 ..	<50 ..	<50 ..	<50 ..



Soil Hazard Categorisation and Management

Table 2: Soil Hazard Categorisation Thresholds : Fill Material: Table 2: Soil Hazard Categorisation Thresholds : Fill Material

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_IB_20220	SX_OB_20220	SX_OB_20220	SX_IB_20220	SX_IB_20220
				Lower Limit	Upper Limit	506_07_52_S	506_07_58_S	506_07_59_S	506_11_48_S	506_16_01_S
						S_Primary_ALS	S_Primary_ALS	S_Duplicate_ALS	S_Primary_ALS	S_Primary_ALS
				Guideline	Guideline	06-May-2022 09:52	06-May-2022 07:58	06-May-2022 07:59	06-May-2022 11:48	06-May-2022 16:01
						EM2208326-001 MU	EM2208326-002 MU	EM2208326-003 MU	EM2208326-004 MU	EM2208326-005 MU
EA001: pH in soil using 0.01M CaCl extract										
pH (CaCl2)	EA001	0.1	pH Unit	4	9	7.7 ± 0.1	7.6 ± 0.1	7.6 ± 0.1	7.6 ± 0.1	7.6 ± 0.1
EG005(ED093)T: Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	----	20	34 ± 5	20 ± 3	22 ± 3	31 ± 4	32 ± 4
Cadmium	EG005T	1	mg/kg	----	3	<1 ..	<1 ..	<1 ..	<1 ..	<1 ..
Copper	EG005T	5	mg/kg	----	100	59 ± 7	65 ± 8	78 ± 10	60 ± 7	56 ± 7
Lead	EG005T	5	mg/kg	----	300	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
Molybdenum	EG005T	5	mg/kg	----	40	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
Nickel	EG005T	5	mg/kg	----	60	156 ± 15	202 ± 20	230 ± 22	175 ± 17	155 ± 15
Selenium	EG005T	5	mg/kg	----	10	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
Silver	EG005T	2	mg/kg	----	10	<2 ..	<2 ..	<2 ..	<2 ..	<2 ..
Tin	EG005T	10	mg/kg	----	50	<10 ..	<10 ..	<10 ..	<10 ..	<10 ..
Zinc	EG005T	5	mg/kg	----	200	89 ± 10	126 ± 14	151 ± 16	104 ± 11	85 ± 10
EG035T: Total Recoverable Mercury by FIMS										
Mercury	EG035T	0.1	mg/kg	----	1	<0.1 ..	<0.1 ..	<0.1 ..	<0.1 ..	<0.1 ..
EG048: Hexavalent Chromium (Alkaline Digest)										
Hexavalent Chromium	EG048G	1.0	mg/kg	----	1	1.9 ± 0.4	<1.0 ..	<1.0 ..	1.2 ± 0.2	1.5 ± 0.3
EK026SF: Total CN by Segmented Flow Analyser										
Total Cyanide	EK026SF	5	mg/kg	----	50	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
EK040T: Fluoride Total										
Fluoride	EK040T	100	mg/kg	----	450	130 ± 30	<100 ..	<100 ..	110 ± 30	120 ± 30
EP066: Polychlorinated Biphenyls (PCB)										
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	2	<0.1 ..	<0.1 ..	<0.1 ..	<0.1 ..	<0.1 ..
EP074A: Monocyclic Aromatic Hydrocarbons										
Benzene	EP074-UT	0.2	mg/kg	----	1	<0.2 ..	<0.2 ..	<0.2 ..	<0.2 ..	<0.2 ..
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.5	mg/kg	----	7	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..
EP074I: Volatile Halogenated Compounds										
Sum of volatile chlorinated hydrocarbons	EP074-UT-SUM	0.50	mg/kg	----	1	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..
EP075A: Phenolic Compounds (Halogenated)										
Sum of Phenols (halogenated)	EP075-EM-SUM	1.00	mg/kg	----	1	<1.00 ..	<1.00 ..	<1.00 ..	<1.00 ..	<1.00 ..
EP075A: Phenolic Compounds (Non-halogenated)										



Soil Hazard Categorisation and Management

Table 2: Soil Hazard Categorisation Thresholds : Fill Material: Table 2: Soil Hazard Categorisation Thresholds : Fill Material

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_IB_20220	SX_OB_20220	SX_OB_20220	SX_IB_20220	SX_IB_20220
				Guideline	Guideline	506_07_52_S	506_07_58_S	506_07_59_S	506_11_48_S	506_16_01_S
						S_Primary_ALS	S_Primary_ALS	S_Duplicate_ALS	S_Primary_ALS	S_Primary_ALS
				Lower Limit	Upper Limit	06-May-2022 09:52	06-May-2022 07:58	06-May-2022 07:59	06-May-2022 11:48	06-May-2022 16:01
						EM2208326-001 MU	EM2208326-002 MU	EM2208326-003 MU	EM2208326-004 MU	EM2208326-005 MU
EP075A: Phenolic Compounds (Non-halogenated) - Continued										
Sum of Phenols (non-halogenated)	EP075-EM-SUM	20	mg/kg	----	60	<20 ..	<20 ..	<20 ..	<20 ..	<20 ..
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	1	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..
Sum of polycyclic aromatic hydrocarbons	EP075-EM-SUM	0.5	mg/kg	----	20	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..
EP075I: Organochlorine Pesticides										
Sum of organochlorine pesticides	EP075-EM-SUM	0.10	mg/kg	----	1	<0.10 ..	<0.10 ..	<0.10 ..	<0.10 ..	<0.10 ..
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP074-UT	20	mg/kg	----	100	<20 ..	<20 ..	<20 ..	<20 ..	<20 ..
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	1000	<50 ..	<50 ..	<50 ..	<50 ..	<50 ..



Soil Hazard Categorisation and Management

Table 2: Soil Hazard Categorisation Thresholds : Category B: Table 2: Soil Hazard Categorisation Thresholds : Category B

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220	SX_IB_20220	SX_IB_20220	SX_IB_20220	SX_IB_20220
				Guideline	Guideline	506_16_07_S	506_16_14_S	506_19_56_S	506_20_01_S	507_00_01_S
						S_Primary_ALS	S_Triplicate_ALS	S_Triplicate_ALS	S_Primary_ALS	S_Primary_ALS
				Lower Limit	Upper Limit	06-May-2022 16:07	06-May-2022 16:14	06-May-2022 19:56	06-May-2022 20:01	06-May-2022 00:01
						EM2208326-006 MU	EM2208326-007 MU	EM2208326-010 MU	EM2208326-011 MU	EM2208326-012 MU
EA001: pH in soil using 0.01M CaCl extract										
pH (CaCl2)	EA001	0.1	pH Unit	2	12.5	7.6 ± 0.1	7.6 ± 0.1	7.8 ± 0.1	7.6 ± 0.1	7.6 ± 0.1
EG005(ED093)T: Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	----	2000	24 ± 4	35 ± 5	31 ± 4	32 ± 4	37 ± 5
Cadmium	EG005T	1	mg/kg	----	400	<1 ..	<1 ..	<1 ..	<1 ..	<1 ..
Copper	EG005T	5	mg/kg	----	20000	78 ± 9	57 ± 7	54 ± 6	55 ± 7	58 ± 7
Lead	EG005T	5	mg/kg	----	6000	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
Molybdenum	EG005T	5	mg/kg	----	4000	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
Nickel	EG005T	5	mg/kg	----	12000	248 ± 24	168 ± 16	163 ± 16	167 ± 16	160 ± 16
Selenium	EG005T	5	mg/kg	----	200	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
Silver	EG005T	2	mg/kg	----	720	<2 ..	<2 ..	<2 ..	<2 ..	<2 ..
Zinc	EG005T	5	mg/kg	----	140000	186 ± 20	91 ± 10	100 ± 11	93 ± 10	94 ± 10
EG035T: Total Recoverable Mercury by FIMS										
Mercury	EG035T	0.1	mg/kg	----	300	<0.1 ..	<0.1 ..	<0.1 ..	<0.1 ..	<0.1 ..
EG048: Hexavalent Chromium (Alkaline Digest)										
Hexavalent Chromium	EG048G	1.0	mg/kg	----	2000	<1.0 ..	1.7 ± 0.3	1.6 ± 0.3	<1.0 ..	1.4 ± 0.3
EK026SF: Total CN by Segmented Flow Analyser										
Total Cyanide	EK026SF	5	mg/kg	----	10000	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
EK040T: Fluoride Total										
Fluoride	EK040T	100	mg/kg	----	40000	<100 ..	100 ± 30	110 ± 30	130 ± 30	130 ± 30
EP074A: Monocyclic Aromatic Hydrocarbons										
Benzene	EP074-UT	0.2	mg/kg	----	16	<0.2 ..	<0.2 ..	<0.2 ..	<0.2 ..	<0.2 ..
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.5	mg/kg	----	240	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..
EP074I: Volatile Halogenated Compounds										
Vinyl chloride	EP074-UT	0.50	mg/kg	----	4.8	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..
Hexachlorobutadiene	EP074-UT	0.50	mg/kg	----	11	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..
Sum of other chlorinated hydrocarbons	EP074-UT-SUM	0.50	mg/kg	----	50	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..
EP075A: Phenolic Compounds (Halogenated)										
Sum of Phenols (halogenated)	EP075-EM-SUM	1.00	mg/kg	----	320	<1.00 ..	<1.00 ..	<1.00 ..	<1.00 ..	<1.00 ..
EP075A: Phenolic Compounds (Non-halogenated)										



Soil Hazard Categorisation and Management

Table 2: Soil Hazard Categorisation Thresholds : Category B: Table 2: Soil Hazard Categorisation Thresholds : Category B

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220	SX_IB_20220	SX_IB_20220	SX_IB_20220	SX_IB_20220
				Sampling date/time		506_16_07_S	506_16_14_S	506_19_56_S	506_20_01_S	507_00_01_S
				Lower Limit	Upper Limit	S_Primary_ALS	S_Triplicate_ALS	S_Triplicate_ALS	S_Primary_ALS	S_Primary_ALS
				06-May-2022 16:07	06-May-2022 16:14	06-May-2022 19:56	06-May-2022 20:01	06-May-2022 00:01		
				EM2208326-006 MU	EM2208326-007 MU	EM2208326-010 MU	EM2208326-011 MU	EM2208326-012 MU		
EP075A: Phenolic Compounds (Non-halogenated) - Continued										
Sum of Phenols (non-halogenated)	EP075-EM-SUM	20	mg/kg	----	2200	<20 ..	<20 ..	<20 ..	<20 ..	<20 ..
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	20	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..
Sum of polycyclic aromatic hydrocarbons	EP075-EM-SUM	0.5	mg/kg	----	400	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..
EP075I: Organochlorine Pesticides										
Heptachlor	EP075-EM	0.05	mg/kg	----	4.8	<0.05 ..	<0.05 ..	<0.05 ..	<0.05 ..	<0.05 ..
Sum of Aldrin + Dieldrin	EP075-EM-SUM	0.30	mg/kg	----	4.8	<0.30 ..	<0.30 ..	<0.30 ..	<0.30 ..	<0.30 ..
Sum of DDD + DDE + DDT	EP075-EM-SUM	0.05	mg/kg	----	50	<0.05 ..	<0.05 ..	<0.05 ..	<0.05 ..	<0.05 ..
Chlordane	EP075-EM-SUM	0.10	mg/kg	----	16	<0.10 ..	<0.10 ..	<0.10 ..	<0.10 ..	<0.10 ..
Sum of other organochlorine pesticides	EP075-EM-SUM	0.03	mg/kg	----	50	<0.03 ..	<0.03 ..	<0.03 ..	<0.03 ..	<0.03 ..
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP074-UT	20	mg/kg	----	2600	<20 ..	<20 ..	<20 ..	<20 ..	<20 ..
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	40000	<50 ..	<50 ..	<50 ..	<50 ..	<50 ..



Soil Hazard Categorisation and Management

Table 2: Soil Hazard Categorisation Thresholds : Category C: Table 2: Soil Hazard Categorisation Thresholds : Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220	SX_IB_20220	SX_IB_20220	SX_IB_20220	SX_IB_20220
				Guideline	Guideline	506_16_07_S	506_16_14_S	506_19_56_S	506_20_01_S	507_00_01_S
						S_Primary_ALS	S_Triplicate_ALS	S_Triplicate_ALS	S_Primary_ALS	S_Primary_ALS
				Lower Limit	Upper Limit	06-May-2022 16:07	06-May-2022 16:14	06-May-2022 19:56	06-May-2022 20:01	06-May-2022 00:01
						EM2208326-006 MU	EM2208326-007 MU	EM2208326-010 MU	EM2208326-011 MU	EM2208326-012 MU
EA001: pH in soil using 0.01M CaCl extract										
pH (CaCl2)	EA001	0.1	pH Unit	4	9	7.6 ±0.1	7.6 ±0.1	7.8 ±0.1	7.6 ±0.1	7.6 ±0.1
EG005(ED093)T: Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	----	500	24 ±4	35 ±5	31 ±4	32 ±4	37 ±5
Cadmium	EG005T	1	mg/kg	----	100	<1 ..	<1 ..	<1 ..	<1 ..	<1 ..
Copper	EG005T	5	mg/kg	----	5000	78 ±9	57 ±7	54 ±6	55 ±7	58 ±7
Lead	EG005T	5	mg/kg	----	1500	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
Molybdenum	EG005T	5	mg/kg	----	1000	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
Nickel	EG005T	5	mg/kg	----	3000	248 ±24	168 ±16	163 ±16	167 ±16	160 ±16
Selenium	EG005T	5	mg/kg	----	50	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
Silver	EG005T	2	mg/kg	----	180	<2 ..	<2 ..	<2 ..	<2 ..	<2 ..
Tin	EG005T	10	mg/kg	----	500	<10 ..	<10 ..	<10 ..	<10 ..	<10 ..
Zinc	EG005T	5	mg/kg	----	35000	186 ±20	91 ±10	100 ±11	93 ±10	94 ±10
EG035T: Total Recoverable Mercury by FIMS										
Mercury	EG035T	0.1	mg/kg	----	75	<0.1 ..	<0.1 ..	<0.1 ..	<0.1 ..	<0.1 ..
EG048: Hexavalent Chromium (Alkaline Digest)										
Hexavalent Chromium	EG048G	1.0	mg/kg	----	500	<1.0 ..	1.7 ±0.3	1.6 ±0.3	<1.0 ..	1.4 ±0.3
EK026SF: Total CN by Segmented Flow Analyser										
Total Cyanide	EK026SF	5	mg/kg	----	2500	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
EK040T: Fluoride Total										
Fluoride	EK040T	100	mg/kg	----	10000	<100 ..	100 ±30	110 ±30	130 ±30	130 ±30
EP074A: Monocyclic Aromatic Hydrocarbons										
Benzene	EP074-UT	0.2	mg/kg	----	4	<0.2 ..	<0.2 ..	<0.2 ..	<0.2 ..	<0.2 ..
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.5	mg/kg	----	70	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..
EP074I: Volatile Halogenated Compounds										
Vinyl chloride	EP074-UT	0.50	mg/kg	----	1.2	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..
Hexachlorobutadiene	EP074-UT	0.50	mg/kg	----	2.8	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..
Sum of other chlorinated hydrocarbons	EP074-UT-SUM	0.50	mg/kg	----	10	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..
EP075A: Phenolic Compounds (Halogenated)										
Sum of Phenols (halogenated)	EP075-EM-SUM	1.00	mg/kg	----	10	<1.00 ..	<1.00 ..	<1.00 ..	<1.00 ..	<1.00 ..



Soil Hazard Categorisation and Management

Table 2: Soil Hazard Categorisation Thresholds : Category C: Table 2: Soil Hazard Categorisation Thresholds : Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220	SX_IB_20220	SX_IB_20220	SX_IB_20220	SX_IB_20220
				Guideline	Guideline	506_16_07_S	506_16_14_S	506_19_56_S	506_20_01_S	507_00_01_S
						S_Primary_ALS	S_Triplicate_ALS	S_Triplicate_ALS	S_Primary_ALS	S_Primary_ALS
				Lower Limit	Upper Limit	06-May-2022 16:07	06-May-2022 16:14	06-May-2022 19:56	06-May-2022 20:01	06-May-2022 00:01
						EM2208326-006 MU	EM2208326-007 MU	EM2208326-010 MU	EM2208326-011 MU	EM2208326-012 MU
EP075A: Phenolic Compounds (Non-halogenated)										
Sum of Phenols (non-halogenated)	EP075-EM-SUM	20	mg/kg	----	560	<20 ..	<20 ..	<20 ..	<20 ..	<20 ..
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	5	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..
Sum of polycyclic aromatic hydrocarbons	EP075-EM-SUM	0.5	mg/kg	----	100	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..
EP075I: Organochlorine Pesticides										
Heptachlor	EP075-EM	0.05	mg/kg	----	1.2	<0.05 ..	<0.05 ..	<0.05 ..	<0.05 ..	<0.05 ..
Sum of Aldrin + Dieldrin	EP075-EM-SUM	0.30	mg/kg	----	1.2	<0.30 ..	<0.30 ..	<0.30 ..	<0.30 ..	<0.30 ..
Sum of DDD + DDE + DDT	EP075-EM-SUM	0.05	mg/kg	----	50	<0.05 ..	<0.05 ..	<0.05 ..	<0.05 ..	<0.05 ..
Chlordane	EP075-EM-SUM	0.10	mg/kg	----	4	<0.10 ..	<0.10 ..	<0.10 ..	<0.10 ..	<0.10 ..
Sum of other organochlorine pesticides	EP075-EM-SUM	0.03	mg/kg	----	10	<0.03 ..	<0.03 ..	<0.03 ..	<0.03 ..	<0.03 ..
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP074-UT	20	mg/kg	----	650	<20 ..	<20 ..	<20 ..	<20 ..	<20 ..
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	10000	<50 ..	<50 ..	<50 ..	<50 ..	<50 ..



Soil Hazard Categorisation and Management

Table 2: Soil Hazard Categorisation Thresholds : Fill Material: Table 2: Soil Hazard Categorisation Thresholds : Fill Material

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220	SX_IB_20220	SX_IB_20220	SX_IB_20220	SX_IB_20220
				Lower Limit	Upper Limit	506_16_07_S	506_16_14_S	506_19_56_S	506_20_01_S	507_00_01_S
						S_Primary_ALS	S_Triplicate_ALS	S_Triplicate_ALS	S_Primary_ALS	S_Primary_ALS
						06-May-2022 16:07	06-May-2022 16:14	06-May-2022 19:56	06-May-2022 20:01	06-May-2022 00:01
						EM2208326-006 MU	EM2208326-007 MU	EM2208326-010 MU	EM2208326-011 MU	EM2208326-012 MU
EA001: pH in soil using 0.01M CaCl extract										
pH (CaCl2)	EA001	0.1	pH Unit	4	9	7.6 ±0.1	7.6 ±0.1	7.8 ±0.1	7.6 ±0.1	7.6 ±0.1
EG005(ED093)T: Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	----	20	24 ±4	35 ±5	31 ±4	32 ±4	37 ±5
Cadmium	EG005T	1	mg/kg	----	3	<1 ..	<1 ..	<1 ..	<1 ..	<1 ..
Copper	EG005T	5	mg/kg	----	100	78 ±9	57 ±7	54 ±6	55 ±7	58 ±7
Lead	EG005T	5	mg/kg	----	300	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
Molybdenum	EG005T	5	mg/kg	----	40	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
Nickel	EG005T	5	mg/kg	----	60	248 ±24	168 ±16	163 ±16	167 ±16	160 ±16
Selenium	EG005T	5	mg/kg	----	10	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
Silver	EG005T	2	mg/kg	----	10	<2 ..	<2 ..	<2 ..	<2 ..	<2 ..
Tin	EG005T	10	mg/kg	----	50	<10 ..	<10 ..	<10 ..	<10 ..	<10 ..
Zinc	EG005T	5	mg/kg	----	200	186 ±20	91 ±10	100 ±11	93 ±10	94 ±10
EG035T: Total Recoverable Mercury by FIMS										
Mercury	EG035T	0.1	mg/kg	----	1	<0.1 ..	<0.1 ..	<0.1 ..	<0.1 ..	<0.1 ..
EG048: Hexavalent Chromium (Alkaline Digest)										
Hexavalent Chromium	EG048G	1.0	mg/kg	----	1	<1.0 ..	1.7 ±0.3	1.6 ±0.3	<1.0 ..	1.4 ±0.3
EK026SF: Total CN by Segmented Flow Analyser										
Total Cyanide	EK026SF	5	mg/kg	----	50	<5 ..	<5 ..	<5 ..	<5 ..	<5 ..
EK040T: Fluoride Total										
Fluoride	EK040T	100	mg/kg	----	450	<100 ..	100 ±30	110 ±30	130 ±30	130 ±30
EP066: Polychlorinated Biphenyls (PCB)										
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	2	<0.1 ..	<0.1 ..	<0.1 ..	<0.1 ..	<0.1 ..
EP074A: Monocyclic Aromatic Hydrocarbons										
Benzene	EP074-UT	0.2	mg/kg	----	1	<0.2 ..	<0.2 ..	<0.2 ..	<0.2 ..	<0.2 ..
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.5	mg/kg	----	7	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..
EP074I: Volatile Halogenated Compounds										
Sum of volatile chlorinated hydrocarbons	EP074-UT-SUM	0.50	mg/kg	----	1	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..	<0.50 ..
EP075A: Phenolic Compounds (Halogenated)										
Sum of Phenols (halogenated)	EP075-EM-SUM	1.00	mg/kg	----	1	<1.00 ..	<1.00 ..	<1.00 ..	<1.00 ..	<1.00 ..
EP075A: Phenolic Compounds (Non-halogenated)										



Soil Hazard Categorisation and Management

Table 2: Soil Hazard Categorisation Thresholds : Fill Material: Table 2: Soil Hazard Categorisation Thresholds : Fill Material

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220	SX_IB_20220	SX_IB_20220	SX_IB_20220	SX_IB_20220
				Guideline	Guideline	506_16_07_S	506_16_14_S	506_19_56_S	506_20_01_S	507_00_01_S
						S_Primary_ALS	S_Triplicate_ALS	S_Triplicate_ALS	S_Primary_ALS	S_Primary_ALS
				Lower Limit	Upper Limit	06-May-2022 16:07	06-May-2022 16:14	06-May-2022 19:56	06-May-2022 20:01	06-May-2022 00:01
						EM2208326-006 MU	EM2208326-007 MU	EM2208326-010 MU	EM2208326-011 MU	EM2208326-012 MU
EP075A: Phenolic Compounds (Non-halogenated) - Continued										
Sum of Phenols (non-halogenated)	EP075-EM-SUM	20	mg/kg	----	60	<20 ..	<20 ..	<20 ..	<20 ..	<20 ..
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	1	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..
Sum of polycyclic aromatic hydrocarbons	EP075-EM-SUM	0.5	mg/kg	----	20	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..	<0.5 ..
EP075I: Organochlorine Pesticides										
Sum of organochlorine pesticides	EP075-EM-SUM	0.10	mg/kg	----	1	<0.10 ..	<0.10 ..	<0.10 ..	<0.10 ..	<0.10 ..
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP074-UT	20	mg/kg	----	100	<20 ..	<20 ..	<20 ..	<20 ..	<20 ..
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	1000	<50 ..	<50 ..	<50 ..	<50 ..	<50 ..



Soil Hazard Categorisation and Management

Table 2: Soil Hazard Categorisation Thresholds : Category B: Table 2: Soil Hazard Categorisation Thresholds : Category B

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220	SX_IB_20220	SX_IB_20220	SX_OB_20220	SX_OB_20220
				Lower Limit	Upper Limit	507_00_06_S	507_04_04_S	506_07_52_S	506_07_58_S	506_07_59_S
						S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Duplicate_ALS
				Guideline	Guideline	06-May-2022 00:06	06-May-2022 16:04	06-May-2022 15:00	06-May-2022 15:00	06-May-2022 15:00
						EM2208326-013 MU	EM2208326-014 MU	EM2208326-015 MU	EM2208326-016 MU	EM2208326-017 MU
EA001: pH in soil using 0.01M CaCl extract										
pH (CaCl2)	EA001	0.1	pH Unit	2	12.5	7.8 ± 0.1	7.7 ± 0.1	----	----	----
EG005(ED093T): Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	----	2000	31 ± 4	34 ± 5	----	----	----
Cadmium	EG005T	1	mg/kg	----	400	<1 --	<1 --	----	----	----
Copper	EG005T	5	mg/kg	----	20000	55 ± 7	60 ± 7	----	----	----
Lead	EG005T	5	mg/kg	----	6000	<5 --	<5 --	----	----	----
Molybdenum	EG005T	5	mg/kg	----	4000	<5 --	<5 --	----	----	----
Nickel	EG005T	5	mg/kg	----	12000	172 ± 17	180 ± 18	----	----	----
Selenium	EG005T	5	mg/kg	----	200	<5 --	<5 --	----	----	----
Silver	EG005T	2	mg/kg	----	720	<2 --	<2 --	----	----	----
Zinc	EG005T	5	mg/kg	----	140000	105 ± 12	102 ± 11	----	----	----
EG035T: Total Recoverable Mercury by FIMS										
Mercury	EG035T	0.1	mg/kg	----	300	<0.1 --	<0.1 --	----	----	----
EG048: Hexavalent Chromium (Alkaline Digest)										
Hexavalent Chromium	EG048G	1.0	mg/kg	----	2000	<1.0 --	2.2 ± 0.4	----	----	----
EK026SF: Total CN by Segmented Flow Analyser										
Total Cyanide	EK026SF	5	mg/kg	----	10000	<5 --	<5 --	----	----	----
EK040T: Fluoride Total										
Fluoride	EK040T	100	mg/kg	----	40000	120 ± 30	180 ± 40	----	----	----
EP074A: Monocyclic Aromatic Hydrocarbons										
Benzene	EP074-UT	0.2	mg/kg	----	16	<0.2 --	<0.2 --	----	----	----
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.5	mg/kg	----	240	<0.5 --	<0.5 --	----	----	----
EP074I: Volatile Halogenated Compounds										
Vinyl chloride	EP074-UT	0.50	mg/kg	----	4.8	<0.50 --	<0.50 --	----	----	----
Hexachlorobutadiene	EP074-UT	0.50	mg/kg	----	11	<0.50 --	<0.50 --	----	----	----
Sum of other chlorinated hydrocarbons	EP074-UT-SUM	0.50	mg/kg	----	50	<0.50 --	<0.50 --	----	----	----
EP075A: Phenolic Compounds (Halogenated)										
Sum of Phenols (halogenated)	EP075-EM-SUM	1.00	mg/kg	----	320	<1.00 --	<1.00 --	----	----	----
EP075A: Phenolic Compounds (Non-halogenated)										
Sum of Phenols (non-halogenated)	EP075-EM-SUM	20	mg/kg	----	2200	<20 --	<20 --	----	----	----
EP075B: Polynuclear Aromatic Hydrocarbons										



Soil Hazard Categorisation and Management

Table 2: Soil Hazard Categorisation Thresholds : Category B: Table 2: Soil Hazard Categorisation Thresholds : Category B

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220	SX_IB_20220	SX_IB_20220	SX_OB_20220	SX_OB_20220	
				Sampling date/time	Guideline	Guideline	507_00_06_S	507_04_04_S	506_07_52_S	506_07_58_S	506_07_59_S
							S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Duplicate_ALS
				Lower Limit	Upper Limit	06-May-2022 00:06	06-May-2022 16:04	06-May-2022 15:00	06-May-2022 15:00	06-May-2022 15:00	
						EM2208326-013 MU	EM2208326-014 MU	EM2208326-015 MU	EM2208326-016 MU	EM2208326-017 MU	
EP075B: Polynuclear Aromatic Hydrocarbons - Continued											
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	20	<0.5	<0.5	----	----	----	
Sum of polycyclic aromatic hydrocarbons	EP075-EM-SUM	0.5	mg/kg	----	400	<0.5	<0.5	----	----	----	
EP075I: Organochlorine Pesticides											
Heptachlor	EP075-EM	0.05	mg/kg	----	4.8	<0.05	<0.05	----	----	----	
Sum of Aldrin + Dieldrin	EP075-EM-SUM	0.30	mg/kg	----	4.8	<0.30	<0.30	----	----	----	
Sum of DDD + DDE + DDT	EP075-EM-SUM	0.05	mg/kg	----	50	<0.05	<0.05	----	----	----	
Chlordane	EP075-EM-SUM	0.10	mg/kg	----	16	<0.10	<0.10	----	----	----	
Sum of other organochlorine pesticides	EP075-EM-SUM	0.03	mg/kg	----	50	<0.03	<0.03	----	----	----	
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP074-UT	20	mg/kg	----	2600	<20	<20	----	----	----	
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	40000	<50	<50	----	----	----	



Soil Hazard Categorisation and Management

Table 2: Soil Hazard Categorisation Thresholds : Category C: Table 2: Soil Hazard Categorisation Thresholds : Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220	SX_IB_20220	SX_IB_20220	SX_OB_20220	SX_OB_20220
				Guideline	Guideline	507_00_06_S	507_04_04_S	506_07_52_S	506_07_58_S	506_07_59_S
						S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Duplicate_ALS
				Lower Limit	Upper Limit	06-May-2022 00:06	06-May-2022 16:04	06-May-2022 15:00	06-May-2022 15:00	06-May-2022 15:00
						EM2208326-013 MU	EM2208326-014 MU	EM2208326-015 MU	EM2208326-016 MU	EM2208326-017 MU
EA001: pH in soil using 0.01M CaCl extract										
pH (CaCl2)	EA001	0.1	pH Unit	4	9	7.8 ± 0.1	7.7 ± 0.1	----	----	----
EG005(ED093T): Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	----	500	31 ± 4	34 ± 5	----	----	----
Cadmium	EG005T	1	mg/kg	----	100	<1 --	<1 --	----	----	----
Copper	EG005T	5	mg/kg	----	5000	55 ± 7	60 ± 7	----	----	----
Lead	EG005T	5	mg/kg	----	1500	<5 --	<5 --	----	----	----
Molybdenum	EG005T	5	mg/kg	----	1000	<5 --	<5 --	----	----	----
Nickel	EG005T	5	mg/kg	----	3000	172 ± 17	180 ± 18	----	----	----
Selenium	EG005T	5	mg/kg	----	50	<5 --	<5 --	----	----	----
Silver	EG005T	2	mg/kg	----	180	<2 --	<2 --	----	----	----
Tin	EG005T	10	mg/kg	----	500	<10 --	<10 --	----	----	----
Zinc	EG005T	5	mg/kg	----	35000	105 ± 12	102 ± 11	----	----	----
EG035T: Total Recoverable Mercury by FIMS										
Mercury	EG035T	0.1	mg/kg	----	75	<0.1 --	<0.1 --	----	----	----
EG048: Hexavalent Chromium (Alkaline Digest)										
Hexavalent Chromium	EG048G	1.0	mg/kg	----	500	<1.0 --	2.2 ± 0.4	----	----	----
EK026SF: Total CN by Segmented Flow Analyser										
Total Cyanide	EK026SF	5	mg/kg	----	2500	<5 --	<5 --	----	----	----
EK040T: Fluoride Total										
Fluoride	EK040T	100	mg/kg	----	10000	120 ± 30	180 ± 40	----	----	----
EP074A: Monocyclic Aromatic Hydrocarbons										
Benzene	EP074-UT	0.2	mg/kg	----	4	<0.2 --	<0.2 --	----	----	----
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.5	mg/kg	----	70	<0.5 --	<0.5 --	----	----	----
EP074I: Volatile Halogenated Compounds										
Vinyl chloride	EP074-UT	0.50	mg/kg	----	1.2	<0.50 --	<0.50 --	----	----	----
Hexachlorobutadiene	EP074-UT	0.50	mg/kg	----	2.8	<0.50 --	<0.50 --	----	----	----
Sum of other chlorinated hydrocarbons	EP074-UT-SUM	0.50	mg/kg	----	10	<0.50 --	<0.50 --	----	----	----
EP075A: Phenolic Compounds (Halogenated)										
Sum of Phenols (halogenated)	EP075-EM-SUM	1.00	mg/kg	----	10	<1.00 --	<1.00 --	----	----	----
EP075A: Phenolic Compounds (Non-halogenated)										
Sum of Phenols (non-halogenated)	EP075-EM-SUM	20	mg/kg	----	560	<20 --	<20 --	----	----	----



Soil Hazard Categorisation and Management

Table 2: Soil Hazard Categorisation Thresholds : Category C: Table 2: Soil Hazard Categorisation Thresholds : Category C

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220	SX_IB_20220	SX_IB_20220	SX_OB_20220	SX_OB_20220	
				Sampling date/time	Guideline	Guideline	507_00_06_S	507_04_04_S	506_07_52_S	506_07_58_S	506_07_59_S
							S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Duplicate_ALS
				Lower Limit	Upper Limit	06-May-2022 00:06	06-May-2022 16:04	06-May-2022 15:00	06-May-2022 15:00	06-May-2022 15:00	
						EM2208326-013 MU	EM2208326-014 MU	EM2208326-015 MU	EM2208326-016 MU	EM2208326-017 MU	
EP075B: Polynuclear Aromatic Hydrocarbons											
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	5	<0.5	<0.5	----	----	----	
Sum of polycyclic aromatic hydrocarbons	EP075-EM-SUM	0.5	mg/kg	----	100	<0.5	<0.5	----	----	----	
EP075I: Organochlorine Pesticides											
Heptachlor	EP075-EM	0.05	mg/kg	----	1.2	<0.05	<0.05	----	----	----	
Sum of Aldrin + Dieldrin	EP075-EM-SUM	0.30	mg/kg	----	1.2	<0.30	<0.30	----	----	----	
Sum of DDD + DDE + DDT	EP075-EM-SUM	0.05	mg/kg	----	50	<0.05	<0.05	----	----	----	
Chlordane	EP075-EM-SUM	0.10	mg/kg	----	4	<0.10	<0.10	----	----	----	
Sum of other organochlorine pesticides	EP075-EM-SUM	0.03	mg/kg	----	10	<0.03	<0.03	----	----	----	
EP080/071: Total Petroleum Hydrocarbons											
C6 - C9 Fraction	EP074-UT	20	mg/kg	----	650	<20	<20	----	----	----	
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	10000	<50	<50	----	----	----	



Soil Hazard Categorisation and Management

Table 2: Soil Hazard Categorisation Thresholds : Fill Material: Table 2: Soil Hazard Categorisation Thresholds : Fill Material

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220	SX_IB_20220	SX_IB_20220	SX_OB_20220	SX_OB_20220
				Lower Limit	Upper Limit	507_00_06_S	507_04_04_S	506_07_52_S	506_07_58_S	506_07_59_S
						S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Duplicate_ALS
				Guideline	Guideline	06-May-2022 00:06	06-May-2022 16:04	06-May-2022 15:00	06-May-2022 15:00	06-May-2022 15:00
						EM2208326-013 MU	EM2208326-014 MU	EM2208326-015 MU	EM2208326-016 MU	EM2208326-017 MU
EA001: pH in soil using 0.01M CaCl extract										
pH (CaCl2)	EA001	0.1	pH Unit	4	9	7.8 ± 0.1	7.7 ± 0.1	----	----	----
EG005(ED093T): Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	----	20	31 ± 4	34 ± 5	----	----	----
Cadmium	EG005T	1	mg/kg	----	3	<1 --	<1 --	----	----	----
Copper	EG005T	5	mg/kg	----	100	55 ± 7	60 ± 7	----	----	----
Lead	EG005T	5	mg/kg	----	300	<5 --	<5 --	----	----	----
Molybdenum	EG005T	5	mg/kg	----	40	<5 --	<5 --	----	----	----
Nickel	EG005T	5	mg/kg	----	60	172 ± 17	180 ± 18	----	----	----
Selenium	EG005T	5	mg/kg	----	10	<5 --	<5 --	----	----	----
Silver	EG005T	2	mg/kg	----	10	<2 --	<2 --	----	----	----
Tin	EG005T	10	mg/kg	----	50	<10 --	<10 --	----	----	----
Zinc	EG005T	5	mg/kg	----	200	105 ± 12	102 ± 11	----	----	----
EG035T: Total Recoverable Mercury by FIMS										
Mercury	EG035T	0.1	mg/kg	----	1	<0.1 --	<0.1 --	----	----	----
EG048: Hexavalent Chromium (Alkaline Digest)										
Hexavalent Chromium	EG048G	1.0	mg/kg	----	1	<1.0 --	2.2 ± 0.4	----	----	----
EK026SF: Total CN by Segmented Flow Analyser										
Total Cyanide	EK026SF	5	mg/kg	----	50	<5 --	<5 --	----	----	----
EK040T: Fluoride Total										
Fluoride	EK040T	100	mg/kg	----	450	120 ± 30	180 ± 40	----	----	----
EP066: Polychlorinated Biphenyls (PCB)										
Total Polychlorinated biphenyls	EP066-EM	0.1	mg/kg	----	2	<0.1 --	<0.1 --	----	----	----
EP074A: Monocyclic Aromatic Hydrocarbons										
Benzene	EP074-UT	0.2	mg/kg	----	1	<0.2 --	<0.2 --	----	----	----
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.5	mg/kg	----	7	<0.5 --	<0.5 --	----	----	----
EP074I: Volatile Halogenated Compounds										
Sum of volatile chlorinated hydrocarbons	EP074-UT-SUM	0.50	mg/kg	----	1	<0.50 --	<0.50 --	----	----	----
EP075A: Phenolic Compounds (Halogenated)										
Sum of Phenols (halogenated)	EP075-EM-SUM	1.00	mg/kg	----	1	<1.00 --	<1.00 --	----	----	----
EP075A: Phenolic Compounds (Non-halogenated)										
Sum of Phenols (non-halogenated)	EP075-EM-SUM	20	mg/kg	----	60	<20 --	<20 --	----	----	----



Soil Hazard Categorisation and Management

Table 2: Soil Hazard Categorisation Thresholds : Fill Material: Table 2: Soil Hazard Categorisation Thresholds : Fill Material

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_OB_20220	SX_IB_20220	SX_IB_20220	SX_OB_20220	SX_OB_20220
				Sampling date/time		507_00_06_S	507_04_04_S	506_07_52_S	506_07_58_S	506_07_59_S
				Lower Limit	Upper Limit	S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Primary_ALS	S_Duplicate_ALS
						06-May-2022 00:06	06-May-2022 16:04	06-May-2022 15:00	06-May-2022 15:00	06-May-2022 15:00
						EM2208326-013 MU	EM2208326-014 MU	EM2208326-015 MU	EM2208326-016 MU	EM2208326-017 MU
EP075B: Polynuclear Aromatic Hydrocarbons										
Benzo(a)pyrene	EP075-EM	0.5	mg/kg	----	1	<0.5 ..	<0.5 ..	----	----	----
Sum of polycyclic aromatic hydrocarbons	EP075-EM-SUM	0.5	mg/kg	----	20	<0.5 ..	<0.5 ..	----	----	----
EP075I: Organochlorine Pesticides										
Sum of organochlorine pesticides	EP075-EM-SUM	0.10	mg/kg	----	1	<0.10 ..	<0.10 ..	----	----	----
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	EP074-UT	20	mg/kg	----	100	<20 ..	<20 ..	----	----	----
C10 - C36 Fraction (sum)	EP071-EM	50	mg/kg	----	1000	<50 ..	<50 ..	----	----	----



Soil Hazard Categorisation and Management

Table 2: Soil Hazard Categorisation Thresholds : Category B: Table 2: Soil Hazard Categorisation Thresholds : Category B

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_IB_20220 506_11_48_S S_Primary_AL S	SX_IB_20220 506_16_01_S S_Primary_AL S	SX_OB_20220 506_16_07_S S_Primary_AL S	SX_IB_20220 506_16_14_S S_Triplicate_ ALS	SX_IB_20220 506_19_56_S S_Triplicate_ ALS
				Guideline	Guideline					
				Lower Limit	Upper Limit					
						06-May-2022 15:00	06-May-2022 15:00	06-May-2022 15:00	06-May-2022 15:00	06-May-2022 15:00
						EM2208326-018 MU	EM2208326-019 MU	EM2208326-020 MU	EM2208326-021 MU	EM2208326-022 MU
EA001: pH in soil using 0.01M CaCl extract										
pH (CaCl2)	EA001	0.1	pH Unit	----	----	----	----	----	----	----
EG005(ED093T): Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	----	----	----	----	----	----	----
Cadmium	EG005T	1	mg/kg	----	----	----	----	----	----	----
Copper	EG005T	5	mg/kg	----	----	----	----	----	----	----
Lead	EG005T	5	mg/kg	----	----	----	----	----	----	----
Molybdenum	EG005T	5	mg/kg	----	----	----	----	----	----	----
Nickel	EG005T	5	mg/kg	----	----	----	----	----	----	----
Selenium	EG005T	5	mg/kg	----	----	----	----	----	----	----
Silver	EG005T	2	mg/kg	----	----	----	----	----	----	----
Zinc	EG005T	5	mg/kg	----	----	----	----	----	----	----
EG035T: Total Recoverable Mercury by FIMS										
Mercury	EG035T	0.1	mg/kg	----	----	----	----	----	----	----
EG048: Hexavalent Chromium (Alkaline Digest)										
Hexavalent Chromium	EG048G	1.0	mg/kg	----	----	----	----	----	----	----
EK026SF: Total CN by Segmented Flow Analyser										
Total Cyanide	EK026SF	5	mg/kg	----	----	----	----	----	----	----
EK040T: Fluoride Total										
Fluoride	EK040T	100	mg/kg	----	----	----	----	----	----	----
EP074A: Monocyclic Aromatic Hydrocarbons										
Benzene	EP074-UT	0.2	mg/kg	----	----	----	----	----	----	----
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.5	mg/kg	----	----	----	----	----	----	----
EP074I: Volatile Halogenated Compounds										
Hexachlorobutadiene	EP074-UT	0.50	mg/kg	----	----	----	----	----	----	----
Sum of other chlorinated hydrocarbons	EP074-UT-SUM	0.50	mg/kg	----	----	----	----	----	----	----
Vinyl chloride	EP074-UT	0.50	mg/kg	----	----	----	----	----	----	----
EP075A: Phenolic Compounds (Halogenated)										
Sum of Phenols (halogenated)	EP075-EM-SUM	1.00	mg/kg	----	----	----	----	----	----	----
EP075A: Phenolic Compounds (Non-halogenated)										
Sum of Phenols (non-halogenated)	EP075-EM-SUM	20	mg/kg	----	----	----	----	----	----	----
EP075B: Polynuclear Aromatic Hydrocarbons										



Soil Hazard Categorisation and Management

Table 2: Soil Hazard Categorisation Thresholds : Category B: Table 2: Soil Hazard Categorisation Thresholds : Category B

Sub-Matrix: SOIL

Compound	Method	LOR	Unit	Sample ID		SX_IB_20220 506_20_01_S S_Primary_AL S	SX_IB_20220 507_00_01_S S_Primary_AL S	SX_OB_20220 507_00_06_S S_Primary_AL S	SX_IB_20220 507_04_04_S S_Primary_AL S	----
				Guideline	Guideline					
				Lower Limit	Upper Limit					
						06-May-2022 15:00	06-May-2022 15:00	06-May-2022 15:00	06-May-2022 15:00	----
						EM2208326-023 MU	EM2208326-024 MU	EM2208326-025 MU	EM2208326-026 MU	
EA001: pH in soil using 0.01M CaCl extract										
pH (CaCl2)	EA001	0.1	pH Unit	----	----	----	----	----	----	----
EG005(ED093T): Total Metals by ICP-AES										
Arsenic	EG005T	5	mg/kg	----	----	----	----	----	----	----
Cadmium	EG005T	1	mg/kg	----	----	----	----	----	----	----
Copper	EG005T	5	mg/kg	----	----	----	----	----	----	----
Lead	EG005T	5	mg/kg	----	----	----	----	----	----	----
Molybdenum	EG005T	5	mg/kg	----	----	----	----	----	----	----
Nickel	EG005T	5	mg/kg	----	----	----	----	----	----	----
Selenium	EG005T	5	mg/kg	----	----	----	----	----	----	----
Silver	EG005T	2	mg/kg	----	----	----	----	----	----	----
Zinc	EG005T	5	mg/kg	----	----	----	----	----	----	----
EG035T: Total Recoverable Mercury by FIMS										
Mercury	EG035T	0.1	mg/kg	----	----	----	----	----	----	----
EG048: Hexavalent Chromium (Alkaline Digest)										
Hexavalent Chromium	EG048G	1.0	mg/kg	----	----	----	----	----	----	----
EK026SF: Total CN by Segmented Flow Analyser										
Total Cyanide	EK026SF	5	mg/kg	----	----	----	----	----	----	----
EK040T: Fluoride Total										
Fluoride	EK040T	100	mg/kg	----	----	----	----	----	----	----
EP074A: Monocyclic Aromatic Hydrocarbons										
Benzene	EP074-UT	0.2	mg/kg	----	----	----	----	----	----	----
Sum of monocyclic aromatic hydrocarbons	EP074-UT-SUM	0.5	mg/kg	----	----	----	----	----	----	----
EP074I: Volatile Halogenated Compounds										
Hexachlorobutadiene	EP074-UT	0.50	mg/kg	----	----	----	----	----	----	----
Sum of other chlorinated hydrocarbons	EP074-UT-SUM	0.50	mg/kg	----	----	----	----	----	----	----
Vinyl chloride	EP074-UT	0.50	mg/kg	----	----	----	----	----	----	----
EP075A: Phenolic Compounds (Halogenated)										
Sum of Phenols (halogenated)	EP075-EM-SUM	1.00	mg/kg	----	----	----	----	----	----	----
EP075A: Phenolic Compounds (Non-halogenated)										
Sum of Phenols (non-halogenated)	EP075-EM-SUM	20	mg/kg	----	----	----	----	----	----	----
EP075B: Polynuclear Aromatic Hydrocarbons										

QUALITY CONTROL REPORT

Work Order	: EM2208326	Page	: 1 of 32
Client	: AGON ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: Craig Trimbur	Contact	: Josh Alexander
Address	: D1.1 63-85 TURNER STREET PORT MELBOURNE 3207	Address	: 4 Westall Rd Springvale VIC Australia 3171
Telephone	: ----	Telephone	: +61-3-8549 9600
Project	: JC0927	Date Samples Received	: 07-May-2022
Order number	: ----	Date Analysis Commenced	: 09-May-2022
C-O-C number	: 20220507043014-ALS-21	Issue Date	: 16-May-2022
Sampler	: HK - EP Risk, LR - EP Risk		
Site	: 20220507043014-ALS-21		
Quote number	: EN/150/19 -WGTP -Bulk Sample Quote		
No. of samples received	: 26		
No. of samples analysed	: 26		



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
Nikki Stepniewski	Senior Inorganic Instrument Chemist	Melbourne Inorganics, Springvale, VIC
Xing Lin	Senior Organic Chemist	Melbourne Inorganics, Springvale, VIC
Xing Lin	Senior Organic Chemist	Melbourne Organics, Springvale, VIC



General Comments

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

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

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

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

Laboratory Duplicate (DUP) Report

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

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4331738)									
EM2208326-001	SX_IB_20220506_07_52_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	91	102	11.2	0% - 20%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<5	<5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	156	146	7.0	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	34	34	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	59	52	13.2	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	89	82	7.3	0% - 50%
EM2208326-012	SX_IB_20220507_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	111	106	4.8	0% - 20%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<5	<5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	160	155	3.2	0% - 20%
		EG005T: Silver	7440-22-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	37	27	30.7	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	58	50	15.3	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	94	87	7.3	0% - 50%



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 (%)
EA001: pH in soil using 0.01M CaCl extract (QC Lot: 4335935)									
EM2208326-001	SX_IB_20220506_07_52_S S_Primary_ALS	EA001: pH (CaCl2)	----	0.1	pH Unit	7.7	7.6	0.0	0% - 20%
EM2208326-012	SX_IB_20220507_00_01_S S_Primary_ALS	EA001: pH (CaCl2)	----	0.1	pH Unit	7.6	7.6	0.0	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4333635)									
EM2208326-001	SX_IB_20220506_07_52_S S_Primary_ALS	EA055: Moisture Content	----	0.1	%	28.0	29.3	4.3	0% - 20%
EM2208326-013	SX_OB_20220507_00_06_ SS_Primary_ALS	EA055: Moisture Content	----	0.1	%	28.8	27.2	5.7	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4331739)									
EM2208326-001	SX_IB_20220506_07_52_S S_Primary_ALS	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2208326-012	SX_IB_20220507_00_01_S S_Primary_ALS	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 4333544)									
EM2208326-001	SX_IB_20220506_07_52_S S_Primary_ALS	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	1.9	1.1	54.9	No Limit
EM2208326-012	SX_IB_20220507_00_01_S S_Primary_ALS	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	1.4	<1.0	32.6	No Limit
EK026SF: Total CN by Segmented Flow Analyser (QC Lot: 4334629)									
EM2208326-006	SX_OB_20220506_16_07_ SS_Primary_ALS	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<5	<5	0.0	No Limit
EM2208278-001	Anonymous	EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit
EK040T: Fluoride Total (QC Lot: 4334007)									
EM2208326-001	SX_IB_20220506_07_52_S S_Primary_ALS	EK040T: Fluoride	16984-48-8	40	mg/kg	130	120	9.8	No Limit
EM2208326-012	SX_IB_20220507_00_01_S S_Primary_ALS	EK040T: Fluoride	16984-48-8	40	mg/kg	130	120	10.7	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4331627)									
EM2208326-001	SX_IB_20220506_07_52_S S_Primary_ALS	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM2208326-013	SX_OB_20220507_00_06_ SS_Primary_ALS	EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 4324979)									
EM2208326-001	SX_IB_20220506_07_52_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



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 (%)	
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 4324979) - continued										
EM2208326-001	SX_IB_20220506_07_52_S S_Primary_ALS	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	
EM2208326-013	SX_OB_20220507_00_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	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
			106-42-3							
		EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit	
	EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
EP074H: Naphthalene (QC Lot: 4324979)										
EM2208326-001	SX_IB_20220506_07_52_S S_Primary_ALS	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit	
EM2208326-013	SX_OB_20220507_00_06_ SS_Primary_ALS	EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit	
EP074I: Volatile Halogenated Compounds (QC Lot: 4324979)										
EM2208326-001	SX_IB_20220506_07_52_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: 1,1,2,2-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	
		EM2208326-013	SX_OB_20220507_00_06_ SS_Primary_ALS	EP074-UT: 1,1-Dichloroethene	75-35-4	0.01	mg/kg	<0.50	<0.50	0.0
EP074-UT: cis-1,2-Dichloroethene	156-59-2			0.01	mg/kg	<0.50	<0.50	0.0	No Limit	



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP074I: Volatile Halogenated Compounds (QC Lot: 4324979) - continued									
EM2208326-013	SX_OB_20220507_00_06_ SS_Primary_ALS	EP074-UT: 1.1.1-Trichloroethane	71-55-6	0.01	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1.1.1.2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1.2.4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: trans-1.2-Dichloroethene	156-60-5	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1.2-Dichloroethane	107-06-2	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1.1.2.2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1.4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
		EP074-UT: 1.2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.50	<0.50	0.0	No Limit
EP074-UT: 1.1.2-Trichloroethane	79-00-5	0.04	mg/kg	<0.50	<0.50	0.0	No Limit		
EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.5	<0.5	0.0	No Limit		
EP075A: Phenolic Compounds (Halogenated) (QC Lot: 4331629)									
EM2208326-001	SX_IB_20220506_07_52_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		
EM2208326-013	SX_OB_20220507_00_06_ 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



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP075A: Phenolic Compounds (Halogenated) (QC Lot: 4331629) - continued									
EM2208326-013	SX_OB_20220507_00_06_ SS_Primary_ALS	EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<1.0	<1.0	0.0	No Limit
EP075A: Phenolic Compounds (Non-halogenated) (QC Lot: 4331629)									
EM2208326-001	SX_IB_20220506_07_52_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
EM2208326-013	SX_OB_20220507_00_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
EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4331629)	SX_IB_20220506_07_52_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
		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



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 (%)
EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4331629) - continued									
EM2208326-001	SX_IB_20220506_07_52_S S_Primary_ALS	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
EM2208326-013	SX_OB_20220507_00_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		
EP075I: Organochlorine Pesticides (QC Lot: 4331629)									
EM2208326-001	SX_IB_20220506_07_52_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
		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



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 (%)
EP075I: Organochlorine Pesticides (QC Lot: 4331629) - continued									
EM2208326-001	SX_IB_20220506_07_52_S S_Primary_ALS	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
EM2208326-013	SX_OB_20220507_00_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		
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4324979)									
EM2208326-001	SX_IB_20220506_07_52_S S_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<20	<20	0.0	No Limit
EM2208326-013	SX_OB_20220507_00_06_ SS_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<20	<20	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4331628)									
EM2208326-001	SX_IB_20220506_07_52_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
EM2208326-013	SX_OB_20220507_00_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



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 (%)
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4331628) - continued									
EM2208326-013	SX_OB_20220507_00_06_S SS_Primary_ALS	EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4324979)									
EM2208326-001	SX_IB_20220506_07_52_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
EM2208326-013	SX_OB_20220507_00_06_S SS_Primary_ALS	EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<20	<20	0.0	No Limit
		EP074-UT: C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<20	<20	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4331628)									
EM2208326-001	SX_IB_20220506_07_52_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
EM2208326-013	SX_OB_20220507_00_06_S 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
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4330281)									
EM2208326-001	SX_IB_20220506_07_52_S S_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
EM2208326-013	SX_OB_20220507_00_06_S 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
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4330281)									
EM2208326-001	SX_IB_20220506_07_52_S S_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



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 (%)
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4330281) - continued									
EM2208326-001	SX_IB_20220506_07_52_S S_Primary_ALS	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 (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
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<5.0 µg/kg	<0.0050	0.0	No Limit
EM2208326-013	SX_OB_20220507_00_06_ SS_Primary_ALS	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 (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
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4330281)									
EM2208326-001	SX_IB_20220506_07_52_S S_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
EM2208326-013	SX_OB_20220507_00_06_ 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



Sub-Matrix: **SOIL** Laboratory Duplicate (DUP) Report

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4330281) - continued									
EM2208326-013	SX_OB_20220507_00_06_ SS_Primary_ALS	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
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4330281)									
EM2208326-001	SX_IB_20220506_07_52_S S_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
EM2208326-013	SX_OB_20220507_00_06_ 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
EP231P: PFAS Sums (QC Lot: 4330281)									
EM2208326-001	SX_IB_20220506_07_52_S S_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
EM2208326-013	SX_OB_20220507_00_06_ 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

Sub-Matrix: **WATER** Laboratory Duplicate (DUP) Report

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4334576)									



Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4334576) - continued									
EM2208326-015	SX_IB_20220506_07_52_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
EM2208326-023	SX_IB_20220506_20_01_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
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4334863)									
EM2208198-004	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.05	0.06	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
EM2208326-012	SX_IB_20220507_00_01_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
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4335270)									
EM2207888-003	Anonymous	EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.01	<0.01	0.0	No Limit
		EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit



Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)	
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4335270) - continued										
EM2207888-003	Anonymous	EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit	
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4334576)										
EM2208326-015	SX_IB_20220506_07_52_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	
EM2208326-023	SX_IB_20220506_20_01_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	
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4334863)	EM2208198-004	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.02	0.02	0.0	No Limit
			EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
			EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
			EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
			EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
			EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
			EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
			EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
			EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
			EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit			



Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4334863) - continued									
EM2208326-012	SX_IB_20220507_00_01_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		
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4335270)									
EM2207888-003	Anonymous	EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.10	<0.10	0.0	No Limit
		EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4334576)							
EM2208326-015	SX_IB_20220506_07_52_S S_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit



Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4334576) - continued									
EM2208326-023	SX_IB_20220506_20_01_S S_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4334863)									
EM2208198-004	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EM2208326-012	SX_IB_20220507_00_01_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



Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4334863) - continued									
EM2208326-012	SX_IB_20220507_00_01_S S_Primary_ALS	EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4335270)									
EM2207888-003	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
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4334576)									
EM2208326-015	SX_IB_20220506_07_52_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
EM2208326-023	SX_IB_20220506_20_01_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
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4334863)									
EM2208198-004	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit



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 (%)
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4334863) - continued									
EM2208198-004	Anonymous	EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EM2208326-012	SX_IB_20220507_00_01_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
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4335270)									
EM2207888-003	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
EP231P: PFAS Sums (QC Lot: 4334576)									
EM2208326-015	SX_IB_20220506_07_52_S S_Primary_ALS	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
EM2208326-023	SX_IB_20220506_20_01_S S_Primary_ALS	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4334863)									
EM2208198-004	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.07	0.08	13.3	No Limit
		EP231X: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.05	0.06	18.2	No Limit
		EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.07	0.08	13.3	No Limit
EM2208326-012	SX_IB_20220507_00_01_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

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 Work Order : EM2208326
 Client : AGON ENVIRONMENTAL PTY LTD
 Project : JC0927



Sub-Matrix: **WATER**

				<i>Laboratory Duplicate (DUP) Report</i>					
<i>Laboratory sample ID</i>	<i>Sample ID</i>	<i>Method: Compound</i>	<i>CAS Number</i>	<i>LOR</i>	<i>Unit</i>	<i>Original Result</i>	<i>Duplicate Result</i>	<i>RPD (%)</i>	<i>Acceptable RPD (%)</i>
EP231P: PFAS Sums (QC Lot: 4335270)									
EM2207888-003	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



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	
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4331738)									
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	123 mg/kg	81.9	70.0	130	
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1.23 mg/kg	53.7	50.0	130	
EG005T: Chromium	7440-47-3	2	mg/kg	<2	20.2 mg/kg	85.4	70.0	130	
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.9 mg/kg	80.2	70.0	130	
EG005T: Lead	7439-92-1	5	mg/kg	<5	62.4 mg/kg	86.0	70.0	130	
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	2.19 mg/kg	75.6	70.0	130	
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.4 mg/kg	84.5	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	74.3	70.0	130	
EG005T: Tin	7440-31-5	5	mg/kg	<5	5.33 mg/kg	91.2	70.0	130	
EG005T: Zinc	7440-66-6	5	mg/kg	<5	162 mg/kg	71.1	70.0	130	
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel) (QCLot: 4332462)									
EN60-DIa-P: Final pH	----	0.1	pH Unit	7.1	----	----	----	----	
EA001: pH in soil using 0.01M CaCl extract (QCLot: 4335935)									
EA001: pH (CaCl2)	----	----	pH Unit	----	4 pH Unit	101	98.8	101	
					7 pH Unit	100	99.3	101	
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4331739)									
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.64 mg/kg	77.4	70.0	130	
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4333544)									
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	83.8	70.0	130	
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4334629)									
EK026SF: Total Cyanide	57-12-5	1	mg/kg	<1	20 mg/kg	83.3	70.0	130	
EK040T: Fluoride Total (QCLot: 4334007)									
EK040T: Fluoride	16984-48-8	40	mg/kg	<40	400 mg/kg	82.2	75.2	110	
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4331627)									
EP066-EM: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	103	67.4	136	
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4324979)									
EP074-UT: Benzene	71-43-2	0.2	mg/kg	<0.2	2.1 mg/kg	87.2	69.2	116	
EP074-UT: Toluene	108-88-3	0.5	mg/kg	<0.5	2.1 mg/kg	86.6	67.7	116	
EP074-UT: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2.1 mg/kg	83.3	66.6	115	
EP074-UT: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	4.2 mg/kg	82.6	65.2	112	
	106-42-3								
EP074-UT: Styrene	100-42-5	0.5	mg/kg	<0.5	2.1 mg/kg	87.0	69.4	111	



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	
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4324979) - continued									
EP074-UT: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2.1 mg/kg	84.1	68.4	110	
EP074H: Naphthalene (QCLot: 4324979)									
EP074-UT: Naphthalene	91-20-3	1	mg/kg	<1	0.6 mg/kg	87.2	72.3	114	
EP074I: Volatile Halogenated Compounds (QCLot: 4324979)									
EP074-UT: Vinyl chloride	75-01-4	0.02	mg/kg	<0.02	0.1 mg/kg	82.4	47.0	138	
EP074-UT: 1,1-Dichloroethene	75-35-4	0.01	mg/kg	<0.01	0.1 mg/kg	83.3	57.6	125	
EP074-UT: Methylene chloride	75-09-2	0.4	mg/kg	<0.4	2.1 mg/kg	88.9	72.3	115	
EP074-UT: trans-1,2-Dichloroethene	156-60-5	0.02	mg/kg	<0.02	0.1 mg/kg	81.8	60.5	122	
EP074-UT: cis-1,2-Dichloroethene	156-59-2	0.01	mg/kg	<0.01	0.1 mg/kg	86.4	70.3	112	
EP074-UT: Chloroform	67-66-3	0.02	mg/kg	<0.02	0.1 mg/kg	88.8	66.6	115	
EP074-UT: 1,1,1-Trichloroethane	71-55-6	0.01	mg/kg	<0.01	0.1 mg/kg	83.8	64.4	122	
EP074-UT: Carbon Tetrachloride	56-23-5	0.01	mg/kg	<0.01	0.1 mg/kg	80.2	58.4	127	
EP074-UT: 1,2-Dichloroethane	107-06-2	0.02	mg/kg	<0.02	0.1 mg/kg	95.0	72.9	114	
EP074-UT: Trichloroethene	79-01-6	0.02	mg/kg	<0.02	0.1 mg/kg	84.4	64.7	115	
EP074-UT: 1,1,2-Trichloroethane	79-00-5	0.04	mg/kg	<0.04	0.1 mg/kg	96.0	72.6	116	
EP074-UT: Tetrachloroethene	127-18-4	0.02	mg/kg	<0.02	0.1 mg/kg	98.6	60.0	119	
EP074-UT: 1,1,1,2-Tetrachloroethane	630-20-6	0.01	mg/kg	<0.01	0.1 mg/kg	88.2	71.8	116	
EP074-UT: 1,1,1,2,2-Tetrachloroethane	79-34-5	0.02	mg/kg	<0.02	0.1 mg/kg	96.4	66.1	116	
EP074-UT: Hexachlorobutadiene	87-68-3	0.02	mg/kg	<0.02	0.1 mg/kg	69.6	39.8	128	
EP074-UT: Chlorobenzene	108-90-7	0.02	mg/kg	<0.02	0.1 mg/kg	87.2	70.3	113	
EP074-UT: 1,4-Dichlorobenzene	106-46-7	0.02	mg/kg	<0.02	0.1 mg/kg	83.4	62.6	113	
EP074-UT: 1,2-Dichlorobenzene	95-50-1	0.02	mg/kg	<0.02	0.1 mg/kg	88.4	70.8	110	
EP074-UT: 1,2,4-Trichlorobenzene	120-82-1	0.01	mg/kg	<0.01	0.1 mg/kg	81.4	48.4	120	
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4331629)									
EP075-EM: 2-Chlorophenol	95-57-8	0.03	mg/kg	<0.03	2 mg/kg	90.0	74.5	126	
EP075-EM: 2,4-Dichlorophenol	120-83-2	0.03	mg/kg	<0.03	2 mg/kg	92.9	72.7	126	
EP075-EM: 2,6-Dichlorophenol	87-65-0	0.03	mg/kg	<0.03	2 mg/kg	92.9	73.5	132	
EP075-EM: 4-Chloro-3-methylphenol	59-50-7	0.03	mg/kg	<0.03	2 mg/kg	95.8	72.8	128	
EP075-EM: 2,4,5-Trichlorophenol	95-95-4	0.05	mg/kg	<0.05	2 mg/kg	85.4	73.3	134	
EP075-EM: 2,4,6-Trichlorophenol	88-06-2	0.05	mg/kg	<0.05	2 mg/kg	86.0	72.4	128	
EP075-EM: 2,3,5,6-Tetrachlorophenol	935-95-5	0.03	mg/kg	<0.03	2 mg/kg	72.3	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	85.5	71.9	128	
EP075-EM: Pentachlorophenol	87-86-5	0.2	mg/kg	<0.2	4 mg/kg	67.8	54.4	135	
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4331629)									
EP075-EM: Phenol	108-95-2	1	mg/kg	<1	2 mg/kg	90.8	71.5	130	
EP075-EM: 2-Methylphenol	95-48-7	1	mg/kg	<1	2 mg/kg	89.3	73.4	129	
EP075-EM: 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	4 mg/kg	89.3	74.3	129	



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	
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4331629) - continued								
EP075-EM: 2-Nitrophenol	88-75-5	1	mg/kg	<1	2 mg/kg	93.4	70.9	133
EP075-EM: 2,4-Dimethylphenol	105-67-9	1	mg/kg	<1	2 mg/kg	91.2	71.8	132
EP075-EM: 2,4-Dinitrophenol	51-28-5	5	mg/kg	<5	10 mg/kg	43.4	41.0	156
EP075-EM: 4-Nitrophenol	100-02-7	5	mg/kg	<5	10 mg/kg	92.9	65.3	134
EP075-EM: 2-Methyl-4,6-dinitrophenol	8071-51-0	5	mg/kg	<5	10 mg/kg	78.3	43.6	128
EP075-EM: Dinoseb	88-85-7	5	mg/kg	<5	10 mg/kg	86.5	62.0	128
EP075-EM: 2-Cyclohexyl-4,6-Dinitrophenol	131-89-5	5	mg/kg	<5	10 mg/kg	69.6	34.5	137
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4331629)								
EP075-EM: Naphthalene	91-20-3	0.5	mg/kg	<0.5	2 mg/kg	93.5	73.0	131
EP075-EM: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	2 mg/kg	83.7	76.3	130
EP075-EM: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	2 mg/kg	85.9	72.0	135
EP075-EM: Fluorene	86-73-7	0.5	mg/kg	<0.5	2 mg/kg	88.5	74.4	131
EP075-EM: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	2 mg/kg	89.8	73.3	130
EP075-EM: Anthracene	120-12-7	0.5	mg/kg	<0.5	2 mg/kg	89.4	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	90.4	75.4	130
EP075-EM: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	2 mg/kg	89.7	69.6	133
EP075-EM: Chrysene	218-01-9	0.5	mg/kg	<0.5	2 mg/kg	90.7	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	89.3	75.8	133
EP075-EM: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	2 mg/kg	89.5	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	92.0	72.9	135
EP075-EM: Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	2 mg/kg	90.8	71.3	134
EP075I: Organochlorine Pesticides (QCLot: 4331629)								
EP075-EM: alpha-BHC	319-84-6	0.03	mg/kg	<0.03	2 mg/kg	90.5	71.0	129
EP075-EM: Hexachlorobenzene (HCB)	118-74-1	0.03	mg/kg	<0.03	2 mg/kg	90.5	74.8	126
EP075-EM: beta-BHC	319-85-7	0.03	mg/kg	<0.03	2 mg/kg	94.3	75.7	130
EP075-EM: gamma-BHC	58-89-9	0.03	mg/kg	<0.03	2 mg/kg	92.3	70.8	130
EP075-EM: delta-BHC	319-86-8	0.03	mg/kg	<0.03	2 mg/kg	92.2	76.5	134
EP075-EM: Heptachlor	76-44-8	0.03	mg/kg	<0.03	2 mg/kg	90.2	75.5	131
EP075-EM: Aldrin	309-00-2	0.03	mg/kg	<0.03	2 mg/kg	93.5	76.8	130
EP075-EM: Heptachlor epoxide	1024-57-3	0.03	mg/kg	<0.03	2 mg/kg	89.7	73.6	130
EP075-EM: cis-Chlordane	5103-71-9	0.03	mg/kg	<0.03	2 mg/kg	91.1	75.0	133
EP075-EM: trans-Chlordane	5103-74-2	0.03	mg/kg	<0.03	2 mg/kg	91.4	75.3	131
EP075-EM: Endosulfan 1	959-98-8	0.03	mg/kg	<0.03	2 mg/kg	91.2	69.4	134
EP075-EM: 4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	2 mg/kg	90.7	71.0	132
EP075-EM: Dieldrin	60-57-1	0.03	mg/kg	<0.03	2 mg/kg	90.2	78.0	133
EP075-EM: Endrin aldehyde	7421-93-4	0.03	mg/kg	<0.03	2 mg/kg	104	69.0	143



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	
EP075I: Organochlorine Pesticides (QCLot: 4331629) - continued									
EP075-EM: Endrin	72-20-8	0.03	mg/kg	<0.03	2 mg/kg	84.7	55.7	145	
EP075-EM: Endosulfan 2	33213-65-9	0.03	mg/kg	<0.03	2 mg/kg	90.8	71.4	135	
EP075-EM: 4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	2 mg/kg	90.0	74.8	134	
EP075-EM: Endosulfan sulfate	1031-07-8	0.03	mg/kg	<0.03	2 mg/kg	90.0	70.2	135	
EP075-EM: 4,4'-DDT	50-29-3	0.05	mg/kg	<0.05	2 mg/kg	88.9	77.7	133	
EP075-EM: Methoxychlor	72-43-5	0.03	mg/kg	<0.03	2 mg/kg	93.5	63.6	135	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4324979)									
EP074-UT: C6 - C9 Fraction	----	10	mg/kg	<10	39.6 mg/kg	82.3	61.1	119	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4331628)									
EP071-EM: C10 - C14 Fraction	----	50	mg/kg	<50	670 mg/kg	105	74.4	129	
EP071-EM: C15 - C28 Fraction	----	100	mg/kg	<100	2860 mg/kg	103	81.0	123	
EP071-EM: C29 - C36 Fraction	----	100	mg/kg	<100	1490 mg/kg	98.4	81.8	121	
EP071-EM: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	5020 mg/kg	102	70.0	130	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4324979)									
EP074-UT: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	48.9 mg/kg	80.7	59.9	119	
EP074-UT: C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	----	----	----	----	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4331628)									
EP071-EM: >C10 - C16 Fraction	----	50	mg/kg	<50	1000 mg/kg	110	75.4	132	
EP071-EM: >C16 - C34 Fraction	----	100	mg/kg	<100	3770 mg/kg	103	80.8	120	
EP071-EM: >C34 - C40 Fraction	----	100	mg/kg	<100	250 mg/kg	97.6	73.3	136	
EP071-EM: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	5020 mg/kg	104	70.0	130	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4330281)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00111 mg/kg	97.7	72.0	128	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00118 mg/kg	96.4	73.0	123	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.0014 mg/kg	75.2	67.0	130	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00119 mg/kg	84.5	70.0	132	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00116 mg/kg	86.3	68.0	136	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00121 mg/kg	82.7	59.0	134	
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4330281)									
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	90.5	71.0	135	
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.3	69.0	132	
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	87.7	70.0	132	
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.8	71.0	131	
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.1	69.0	133	
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.0	72.0	129	
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	85.0	69.0	133	
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.1	64.0	136	



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
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4330281) - continued									
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.0	69.0	135	
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	87.0	66.0	139	
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	95.4	69.0	133	
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4330281)									
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	88.1	67.0	137	
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	97.4	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	83.0	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	90.2	70.0	130	
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	97.1	70.0	130	
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	103	63.0	144	
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.6	61.0	139	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4330281)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00117 mg/kg	91.4	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	84.4	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	97.9	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	103	70.0	130	
EP231P: PFAS Sums (QCLot: 4330281)									
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
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4334576)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	98.5	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	118	71.0	127	
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	112	68.0	131	
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	114	69.0	134	
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	95.9	65.0	140	
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	102	53.0	142	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4334863)									
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.222 µg/L	96.6	72.0	130	
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.235 µg/L	91.6	71.0	127	



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
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4334863) - continued								
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.228 µg/L	88.8	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	103	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.232 µg/L	102	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.241 µg/L	95.9	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4335270)								
EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.444 µg/L	76.4	72.0	130
EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.47 µg/L	98.1	71.0	127
EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.457 µg/L	81.1	68.0	131
EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.477 µg/L	115	69.0	134
EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.465 µg/L	97.0	65.0	140
EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.482 µg/L	113	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4334576)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	91.4	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	93.8	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	99.2	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	90.2	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	93.6	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	100	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	87.9	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	98.9	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	85.6	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	105	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4334863)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	91.2	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	97.3	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	95.6	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	94.2	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	102	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	96.4	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	104	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	92.8	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	102	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4335270)								
EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.10	2.5 µg/L	79.8	73.0	129
EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.5 µg/L	98.1	72.0	129



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
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4335270) - continued								
EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.5 µg/L	98.1	72.0	129
EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.5 µg/L	82.1	72.0	130
EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.5 µg/L	77.7	71.0	133
EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.5 µg/L	81.4	69.0	130
EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.5 µg/L	72.9	71.0	129
EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.5 µg/L	72.1	69.0	133
EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.5 µg/L	85.6	72.0	134
EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.5 µg/L	75.7	65.0	144
EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	1.25 µg/L	113	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4334576)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	98.6	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	94.2	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	100	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	101	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	89.0	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	104	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	84.9	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4334863)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	98.8	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	120	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	102	70.0	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	93.4	70.0	130
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	97.7	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	98.9	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4335270)								
EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.5 µg/L	118	67.0	137
EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	1.25 µg/L	95.5	68.0	141
EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	1.25 µg/L	90.2	70.0	130



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		
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4335270) - continued									
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	1.25 µg/L	115	70.0	130	
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	1.25 µg/L	91.6	70.0	130	
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.5 µg/L	91.1	65.0	136	
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.5 µg/L	93.0	61.0	135	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4334576)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	105	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	103	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	99.3	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	86.0	70.0	130	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4334863)									
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.234 µg/L	102	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	102	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	106	67.0	138	
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.242 µg/L	85.2	70.0	130	
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4335270)									
EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.469 µg/L	80.0	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	90.5	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	91.6	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	73.8	70.0	130	
EP231P: PFAS Sums (QCLot: 4334576)									
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----	
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----	
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----	
EP231P: PFAS Sums (QCLot: 4334863)									
EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----	
EP231X: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----	
EP231X: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----	
EP231P: PFAS Sums (QCLot: 4335270)									
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	----	----	----	----	



Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4331738)							
EM2208326-002	SX_OB_20220506_07_58_SS_Primary_ALS	EG005T: Arsenic	7440-38-2	50 mg/kg	90.8	78.0	124
		EG005T: Cadmium	7440-43-9	50 mg/kg	89.8	79.7	116
		EG005T: Chromium	7440-47-3	50 mg/kg	84.2	79.0	121
		EG005T: Copper	7440-50-8	250 mg/kg	94.3	80.0	120
		EG005T: Lead	7439-92-1	250 mg/kg	86.1	80.0	120
		EG005T: Nickel	7440-02-0	50 mg/kg	100.0	78.0	120
		EG005T: Zinc	7440-66-6	250 mg/kg	85.1	80.0	120
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4331739)							
EM2208326-002	SX_OB_20220506_07_58_SS_Primary_ALS	EG035T: Mercury	7439-97-6	0.5 mg/kg	95.7	76.0	116
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 4333544)							
EM2208326-002	SX_OB_20220506_07_58_SS_Primary_ALS	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	87.7	58.0	114
EM2208326-002	SX_OB_20220506_07_58_SS_Primary_ALS	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	108	58.0	114
EK026SF: Total CN by Segmented Flow Analyser (QCLot: 4334629)							
EM2208278-002	Anonymous	EK026SF: Total Cyanide	57-12-5	20 mg/kg	86.3	70.0	130
EK040T: Fluoride Total (QCLot: 4334007)							
EM2208326-002	SX_OB_20220506_07_58_SS_Primary_ALS	EK040T: Fluoride	16984-48-8	400 mg/kg	101	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4331627)							
EM2208326-003	SX_OB_20220506_07_59_SS_Duplicate_ALS	EP066-EM: Total Polychlorinated biphenyls	----	1 mg/kg	90.7	59.6	152
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 4324979)							
EM2208326-002	SX_OB_20220506_07_58_SS_Primary_ALS	EP074-UT: Benzene	71-43-2	2 mg/kg	98.0	53.7	130
		EP074-UT: Toluene	108-88-3	2 mg/kg	97.6	55.1	124
EP074I: Volatile Halogenated Compounds (QCLot: 4324979)							
EM2208326-002	SX_OB_20220506_07_58_SS_Primary_ALS	EP074-UT: 1,1-Dichloroethene	75-35-4	2 mg/kg	118	38.4	145
		EP074-UT: Trichloroethene	79-01-6	2 mg/kg	88.6	48.1	128
		EP074-UT: Chlorobenzene	108-90-7	2 mg/kg	85.8	55.5	122
EP075A: Phenolic Compounds (Halogenated) (QCLot: 4331629)							
EM2208326-002	SX_OB_20220506_07_58_SS_Primary_ALS	EP075-EM: 2-Chlorophenol	95-57-8	3 mg/kg	91.3	44.0	143
		EP075-EM: 4-Chloro-3-methylphenol	59-50-7	3 mg/kg	95.5	41.5	139
		EP075-EM: Pentachlorophenol	87-86-5	3 mg/kg	22.4	10.0	144
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4331629)							
EM2208326-002	SX_OB_20220506_07_58_SS_Primary_ALS	EP075-EM: Phenol	108-95-2	3 mg/kg	92.5	44.2	134



Sub-Matrix: SOIL

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP075A: Phenolic Compounds (Non-halogenated) (QCLot: 4331629) - continued							
EM2208326-002	SX_OB_20220506_07_58_SS_Primary_ALS	EP075-EM: 2-Nitrophenol	88-75-5	3 mg/kg	87.1	34.2	129
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 4331629)							
EM2208326-002	SX_OB_20220506_07_58_SS_Primary_ALS	EP075-EM: Acenaphthene	83-32-9	3 mg/kg	70.1	42.6	138
		EP075-EM: Pyrene	129-00-0	3 mg/kg	89.6	37.8	152
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4324979)							
EM2208326-002	SX_OB_20220506_07_58_SS_Primary_ALS	EP074-UT: C6 - C9 Fraction	----	28 mg/kg	86.1	42.3	111
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4331628)							
EM2208326-004	SX_IB_20220506_11_48_SS_Primary_ALS	EP071-EM: C10 - C14 Fraction	----	670 mg/kg	105	71.3	126
		EP071-EM: C15 - C28 Fraction	----	2860 mg/kg	102	75.1	123
		EP071-EM: C29 - C36 Fraction	----	1490 mg/kg	96.9	78.1	120
		EP071-EM: C10 - C36 Fraction (sum)	----	5020 mg/kg	101	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4324979)							
EM2208326-002	SX_OB_20220506_07_58_SS_Primary_ALS	EP074-UT: C6 - C10 Fraction	C6_C10	33 mg/kg	84.6	39.9	109
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4331628)							
EM2208326-004	SX_IB_20220506_11_48_SS_Primary_ALS	EP071-EM: >C10 - C16 Fraction	----	1000 mg/kg	109	71.5	130
		EP071-EM: >C16 - C34 Fraction	----	3770 mg/kg	101	76.9	119
		EP071-EM: >C34 - C40 Fraction	----	250 mg/kg	96.7	65.3	139
		EP071-EM: >C10 - C40 Fraction (sum)	----	5020 mg/kg	103	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4330281)							
EM2208326-002	SX_OB_20220506_07_58_SS_Primary_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00111 mg/kg	91.4	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00118 mg/kg	84.1	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00114 mg/kg	92.5	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00119 mg/kg	95.9	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00116 mg/kg	87.7	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00121 mg/kg	105	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4330281)							
EM2208326-002	SX_OB_20220506_07_58_SS_Primary_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	97.1	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	99.4	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	102	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	84.4	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	90.2	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	91.2	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	96.8	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	89.0	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	91.5	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	85.4	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	90.9	69.0	133



Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4330281)							
EM2208326-002	SX_OB_20220506_07_58_SS_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	97.1	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	100	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	89.7	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	94.1	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	98.0	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	94.4	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	90.0	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4330281)							
EM2208326-002	SX_OB_20220506_07_58_SS_Primary_ALS	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00117 mg/kg	100	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00119 mg/kg	92.8	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0012 mg/kg	106	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00121 mg/kg	94.8	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4334576)							
EM2208326-016	SX_OB_20220506_07_58_SS_Primary_ALS	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	91.7	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	113	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	107	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	122	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	90.5	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	86.7	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4334863)							
EM2208198-013	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.222 µg/L	95.7	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.235 µg/L	97.4	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.228 µg/L	85.1	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.238 µg/L	99.2	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.232 µg/L	# Not Determined	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.241 µg/L	86.6	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4335270)							
EM2207888-004	Anonymous	EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.444 µg/L	78.0	72.0	130
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.47 µg/L	102	71.0	127



Sub-Matrix: WATER

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Concentration	Spike Recovery(%) MS	Acceptable Limits (%) Low High	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4335270) - continued							
EM2207888-004	Anonymous	EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.457 µg/L	84.8	68.0	131
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.477 µg/L	125	69.0	134
		EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.465 µg/L	92.2	65.0	140
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.482 µg/L	97.5	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4334576)							
EM2208326-016	SX_OB_20220506_07_58_SS_Primary_ALS	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	85.8	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	90.2	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	104	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	100	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	93.5	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	95.2	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	99.6	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	84.2	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	86.5	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	67.8	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	95.1	71.0	132
		EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4334863)					
EM2208198-013	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	78.3	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	98.7	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	92.8	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	109	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	92.7	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	98.6	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	103	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	87.5	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	102	71.0	132
		EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4335270)					
EM2207888-004	Anonymous	EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	2.5 µg/L	79.8	73.0	129
		EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.5 µg/L	75.2	72.0	129
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.5 µg/L	103	72.0	129
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.5 µg/L	88.1	72.0	130
		EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.5 µg/L	75.4	71.0	133
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.5 µg/L	88.7	69.0	130
		EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.5 µg/L	81.3	71.0	129
		EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.5 µg/L	71.9	69.0	133
		EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.5 µg/L	89.0	72.0	134



Sub-Matrix: WATER

				Matrix Spike (MS) Report			
				Spike	Spike Recovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4335270) - continued							
EM2207888-004	Anonymous	EP231X-INJ: Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.5 µg/L	72.8	65.0	144
		EP231X-INJ: Perfluorotetradecanoic acid (PFTTeDA)	376-06-7	1.25 µg/L	113	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4334576)							
EM2208326-016	SX_OB_20220506_07_58_SS_Primary_ALS	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	98.9	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	95.0	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	82.7	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	92.8	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	84.6	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	103	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	88.7	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4334863)							
EM2208198-013	Anonymous	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	122	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	106	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	107	70.0	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	106	70.0	130
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	101	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	102	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4335270)							
EM2207888-004	Anonymous	EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.5 µg/L	100	67.0	137
		EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	1.25 µg/L	84.4	68.0	141
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	1.25 µg/L	117	70.0	130
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	1.25 µg/L	91.2	70.0	130
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	1.25 µg/L	91.8	70.0	130



Sub-Matrix: WATER

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4335270) - continued							
EM2207888-004	Anonymous	EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.5 µg/L	102	65.0	136
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.5 µg/L	94.1	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4334576)							
EM2208326-016	SX_OB_20220506_07_58_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	106	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	99.6	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	70.7	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4334863)							
EM2208198-013	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	110	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.24 µg/L	122	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.242 µg/L	87.1	70.0	130
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4335270)							
EM2207888-004	Anonymous	EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.469 µg/L	82.8	63.0	143
		EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.476 µg/L	103	64.0	140
		EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.48 µg/L	90.7	67.0	138
		EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.483 µg/L	70.3	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EM2208326	Page	: 1 of 15
Client	: AGON ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Melbourne
Contact	: Craig Trimbur	Telephone	: +61-3-8549 9600
Project	: JC0927	Date Samples Received	: 07-May-2022
Site	: 20220507043014-ALS-21	Issue Date	: 16-May-2022
Sampler	: HK - EP Risk, LR - EP Risk	No. of samples received	: 26
Order number	: ----	No. of samples analysed	: 26

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

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

Summary of Outliers

Outliers : Quality Control Samples

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

- **NO** Method Blank value outliers occur.
- **NO** Duplicate outliers occur.
- **NO** Laboratory Control outliers occur.
- Matrix Spike outliers exist - please see following pages for full details.
- For all regular sample matrices, **NO** surrogate recovery outliers occur.

Outliers : Analysis Holding Time Compliance

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

Outliers : Frequency of Quality Control Samples

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



Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: WATER

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EP231A: Perfluoroalkyl Sulfonic Acids	EM2208198--013	Anonymous	Perfluorooctane sulfonic acid (PFOS)	1763-23-1	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	
EA001: pH in soil using 0.01M CaCl extract								
Soil Glass Jar - Unpreserved (EA001)								
SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	13-May-2022	13-May-2022	✔	13-May-2022	13-May-2022	✔
EA055: Moisture Content (Dried @ 105-110°C)								
Soil Glass Jar - Unpreserved (EA055)								
SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	----	----	----	12-May-2022	20-May-2022	✔
EG005(ED093)T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved (EG005T)								
SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	13-May-2022	02-Nov-2022	✔	13-May-2022	02-Nov-2022	✔



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EG035T: Total Recoverable Mercury by FIMS								
Soil Glass Jar - Unpreserved (EG035T) SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	13-May-2022	03-Jun-2022	✓	13-May-2022	03-Jun-2022	✓
EG048: Hexavalent Chromium (Alkaline Digest)								
Soil Glass Jar - Unpreserved (EG048G) SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	12-May-2022	03-Jun-2022	✓	13-May-2022	19-May-2022	✓
EK026SF: Total CN by Segmented Flow Analyser								
Soil Glass Jar - Unpreserved (EK026SF) SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	12-May-2022	20-May-2022	✓	13-May-2022	26-May-2022	✓
EK040T: Fluoride Total								
Soil Glass Jar - Unpreserved (EK040T) SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	12-May-2022	03-Jun-2022	✓	16-May-2022	03-Jun-2022	✓
EN60: ASLP Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60a-P) SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	11-May-2022	02-Nov-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	
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-DIa-P)								
SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	11-May-2022	02-Nov-2022	✓	----	----	----
EP066: Polychlorinated Biphenyls (PCB)								
Soil Glass Jar - Unpreserved (EP066-EM)								
SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	12-May-2022	20-May-2022	✓	12-May-2022	21-Jun-2022	✓
EP074A: Monocyclic Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	09-May-2022	13-May-2022	✓	09-May-2022	13-May-2022	✓
EP074H: Naphthalene								
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	09-May-2022	13-May-2022	✓	09-May-2022	13-May-2022	✓
EP074I: Volatile Halogenated Compounds								
Soil Glass Jar - Unpreserved (EP074-UT)								
SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	09-May-2022	13-May-2022	✓	09-May-2022	13-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	
EP075A: Phenolic Compounds (Halogenated)								
Soil Glass Jar - Unpreserved (EP075-EM) SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	12-May-2022	20-May-2022	✓	12-May-2022	21-Jun-2022	✓
EP075A: Phenolic Compounds (Non-halogenated)								
Soil Glass Jar - Unpreserved (EP075-EM) SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	12-May-2022	20-May-2022	✓	12-May-2022	21-Jun-2022	✓
EP075B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075-EM) SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	12-May-2022	20-May-2022	✓	12-May-2022	21-Jun-2022	✓
EP075I: Organochlorine Pesticides								
Soil Glass Jar - Unpreserved (EP075-EM) SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	12-May-2022	20-May-2022	✓	12-May-2022	21-Jun-2022	✓



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	09-May-2022	13-May-2022	✓	09-May-2022	13-May-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	12-May-2022	20-May-2022	✓	12-May-2022	21-Jun-2022	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
Soil Glass Jar - Unpreserved (EP074-UT) SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	09-May-2022	13-May-2022	✓	09-May-2022	13-May-2022	✓
Soil Glass Jar - Unpreserved (EP071-EM) SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	12-May-2022	20-May-2022	✓	12-May-2022	21-Jun-2022	✓
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE Soil Jar (EP231X) SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	11-May-2022	02-Nov-2022	✓	11-May-2022	20-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	
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE Soil Jar (EP231X) SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	11-May-2022	02-Nov-2022	✓	11-May-2022	20-Jun-2022	✓
EP231C: Perfluoroalkyl Sulfonamides								
HDPE Soil Jar (EP231X) SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	11-May-2022	02-Nov-2022	✓	11-May-2022	20-Jun-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE Soil Jar (EP231X) SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	11-May-2022	02-Nov-2022	✓	11-May-2022	20-Jun-2022	✓
EP231P: PFAS Sums								
HDPE Soil Jar (EP231X) SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	06-May-2022	11-May-2022	02-Nov-2022	✓	11-May-2022	20-Jun-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		
EP231A: Perfluoroalkyl Sulfonic Acids									
HDPE (no PTFE) (EP231X-INJ)									
SX_IB_20220506_17_05_SR_Rinsate_ALS,	SX_IB_20220506_17_06_SB_Blank_ALS	06-May-2022	12-May-2022	02-Nov-2022	✓	12-May-2022	02-Nov-2022	✓	
HDPE (no PTFE) (EP231X)									
SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS, SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS, SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	11-May-2022	12-May-2022	07-Nov-2022	✓	12-May-2022	07-Nov-2022	✓	
EP231B: Perfluoroalkyl Carboxylic Acids									
HDPE (no PTFE) (EP231X-INJ)									
SX_IB_20220506_17_05_SR_Rinsate_ALS,	SX_IB_20220506_17_06_SB_Blank_ALS	06-May-2022	12-May-2022	02-Nov-2022	✓	12-May-2022	02-Nov-2022	✓	
HDPE (no PTFE) (EP231X)									
SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS, SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS, SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	11-May-2022	12-May-2022	07-Nov-2022	✓	12-May-2022	07-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		
EP231C: Perfluoroalkyl Sulfonamides									
HDPE (no PTFE) (EP231X-INJ)									
SX_IB_20220506_17_05_SR_Rinsate_ALS,	SX_IB_20220506_17_06_SB_Blank_ALS	06-May-2022	12-May-2022	02-Nov-2022	✓	12-May-2022	02-Nov-2022	✓	
HDPE (no PTFE) (EP231X)									
SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS, SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS, SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	11-May-2022	12-May-2022	07-Nov-2022	✓	12-May-2022	07-Nov-2022	✓	
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
HDPE (no PTFE) (EP231X-INJ)									
SX_IB_20220506_17_05_SR_Rinsate_ALS,	SX_IB_20220506_17_06_SB_Blank_ALS	06-May-2022	12-May-2022	02-Nov-2022	✓	12-May-2022	02-Nov-2022	✓	
HDPE (no PTFE) (EP231X)									
SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS, SX_IB_20220506_07_52_SS_Primary_ALS, SX_OB_20220506_07_59_SS_Duplicate_ALS, SX_IB_20220506_16_01_SS_Primary_ALS, SX_IB_20220506_16_14_SS_Triplicate_ALS, SX_IB_20220506_20_01_SS_Primary_ALS, SX_OB_20220507_00_06_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS, SX_OB_20220506_07_58_SS_Primary_ALS, SX_IB_20220506_11_48_SS_Primary_ALS, SX_OB_20220506_16_07_SS_Primary_ALS, SX_IB_20220506_19_56_SS_Triplicate_ALS, SX_IB_20220507_00_01_SS_Primary_ALS, SX_IB_20220507_04_04_SS_Primary_ALS	11-May-2022	12-May-2022	07-Nov-2022	✓	12-May-2022	07-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	
EP231P: PFAS Sums								
HDPE (no PTFE) (EP231X-INJ)								
SX_IB_20220506_17_05_SR_Rinsate_ALS,	SX_IB_20220506_17_06_SB_Blank_ALS	06-May-2022	12-May-2022	02-Nov-2022	✓	12-May-2022	02-Nov-2022	✓
HDPE (no PTFE) (EP231X)								
SX_IB_20220506_07_52_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS,	11-May-2022	12-May-2022	07-Nov-2022	✓	12-May-2022	07-Nov-2022	✓
SX_OB_20220506_07_59_SS_Duplicate_ALS,	SX_IB_20220506_11_48_SS_Primary_ALS,							
SX_IB_20220506_16_01_SS_Primary_ALS,	SX_OB_20220506_16_07_SS_Primary_ALS,							
SX_IB_20220506_16_14_SS_Triplicate_ALS,	SX_IB_20220506_19_56_SS_Triplicate_ALS,							
SX_IB_20220506_20_01_SS_Primary_ALS,	SX_IB_20220507_00_01_SS_Primary_ALS,							
SX_OB_20220507_00_06_SS_Primary_ALS,	SX_IB_20220507_04_04_SS_Primary_ALS,							
SX_IB_20220506_07_52_SS_Primary_ALS,	SX_OB_20220506_07_58_SS_Primary_ALS,							
SX_OB_20220506_07_59_SS_Duplicate_ALS,	SX_IB_20220506_11_48_SS_Primary_ALS,							
SX_IB_20220506_16_01_SS_Primary_ALS,	SX_OB_20220506_16_07_SS_Primary_ALS,							
SX_IB_20220506_16_14_SS_Triplicate_ALS,	SX_IB_20220506_19_56_SS_Triplicate_ALS,							
SX_IB_20220506_20_01_SS_Primary_ALS,	SX_IB_20220507_00_01_SS_Primary_ALS,							
SX_OB_20220507_00_06_SS_Primary_ALS,	SX_IB_20220507_04_04_SS_Primary_ALS,							



Quality Control Parameter Frequency Compliance

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

Matrix: **SOIL**

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

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Reaular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Moisture Content	EA055	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	2	13	15.38	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	17	11.76	10.00	✓	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	2	13	15.38	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	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071-EM	2	13	15.38	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	2	12	16.67	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	1	13	7.69	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	17	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	13	7.69	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	13	7.69	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	12	8.33	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Deionised Water Leach - Plastic Leaching Vessel	EN60-DIa-P	1	18	5.56	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	13	7.69	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	17	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	13	7.69	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	13	7.69	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	12	8.33	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	Regular	Actual	Expected	Evaluation	
Analytical Methods							
Matrix Spikes (MS)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PCB - VIC EPA 448.3 Screen	EP066-EM	1	13	7.69	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	17	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds - Waste Classification	EP075-EM	1	13	7.69	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	13	7.69	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds - Ultra-trace	EP074-UT	1	12	8.33	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	Regular	Actual	Expected	Evaluation	
Analytical Methods							
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	36	11.11	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
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	36	5.56	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
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	36	5.56	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
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	36	5.56	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 ₂ 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 ₂ 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 ₂) (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 ₂ 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 ₂ 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 ₂ 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 ₂ SO ₄ 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.